

DePaul University | College of Computing and Digital Media

IS 344 ▪ IT Auditing: Course Syllabus – Fall 2018

Day: **Thursday** ▪ Time: **5:45 - 9:00 PM** ▪ Room #: **LEWIS 1107 at Loop Campus**

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|--|---|
| Mr. LeRoy Foster | E-mail: lfoster@depaul.edu |
| IS 344 Section 901 – Class number: 30394 IS 344 Section 910 – Class number: 36472 (on-line) | Office hours: <i>By appointment (preferred) or</i> Thursdays → 4:45 – 5:45 PM <u>and</u> after class Location = Classroom |

Course Description:

Management and boards continue to recognize the importance of effectively managing information technology (IT) assets — to meet business objectives and to thoughtfully manage IT-related business risks. This course examines the key principles related to auditing information technology processes and related controls and is designed to meet the increasing needs for audit, compliance, security, and risk management professionals.

Course Objectives for Undergraduate Students:

Through the application of [COBIT® 5](#) and other similar governance frameworks, students will develop a common vocabulary for understanding sources of IT risk and perform an IT audit. Students will further gain hands-on experience in analyzing and assessing IT risks and controls through various case studies, lectures, and discussions. The primary objectives of the course are to:

- Establish an understanding of the IT environment and the role of the IT auditor,
- Recognize how corporate and IT governance practices impact the IT audit process,
- Develop an understanding of the IT audit process i.e., risk assessment, planning, standards, guidelines and best practices, and
- Survey IT audit approaches to:
 - Systems development and maintenance,
 - IT security,
 - IT service delivery and support,
 - Business continuity and disaster recovery, and
 - Data analytics and fraud detection.

Course Resources:

Textbook: Information Technology Auditing 4e by James Hall
ISBN-10: 1133949886 ISBN-13: 9781133949886

Reading and studying the material from the chapters will be vital to success in the course.

Some other course material will be available in D2L.

Students are encouraged to join ISACA as a student member. It is quite inexpensive (reportedly \$25) relative to textbooks and courses. Go to <http://www.isaca.org/Membership/Student-Membership/Pages/Student-Membership-Information.aspx>. This will allow you to download COBIT 5 and other useful (but not required) materials for free.

Academic Integrity:

This course will be subject to the Academic Integrity Policy passed by the Faculty Council. Work done for this course must adhere to the DePaul University Academic Integrity Policy, which you can review in the Student Handbook or by visiting Academic Integrity at DePaul University (<http://academicintegrity.depaul.edu>).

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Communications:

Class lecture, D2L and email will be the primary means of communication. Students are obligated to actively monitor classroom communications and convey any questions in a timely manner.

Grading Breakdown:

| Grade Item | Percentage | Point Allocation |
|---|-------------|-------------------|
| Homework Assignments (2 at 100 pts. each) | 30% | 200 points |
| Quizzes (3 @ 60pts) | 30% | 180 points |
| Final Exam (details to be announced) | 30% | 100 points |
| Participation – in class or via on-line communication (details to be announced) | 10% | 20 points |
| Total | 100% | 500 points |

Grading Scale:

| Grade | Percentage | Grade | Percentage | Grade | Percentage |
|-------|------------|-------|------------|-------|---------------|
| A | 93% – 100% | B– | 80% – 82% | D+ | 67% – 69% |
| A– | 90% – 92% | C+ | 77% – 79% | D | 60% – 66% |
| B+ | 87% – 89% | C | 73% – 76% | F | Less than 60% |
| B | 83% – 86% | C– | 70% – 72% | | |

Participation:

Students must actively participate either in class or via on-line communication for on-line students. More information on this topic will be provided on the first day of class.

Homework, Quizzes or Exams:

Subject to pre-approval, only students granted an *official excused absence* will be allowed to make up a missed homework, quiz or examination. Any uncoordinated, unexcused missed exam, quiz or homework assignment will result in a score of a -0-.

Tentative Course Calendar (subject to change):

| Week | Topics | Resource(s) ⁱ | Due Dates |
|---------------|---|---|-----------|
| 1 April 04 | Chapter 1 Auditing and Internal Control | Know the difference between attest services and advisory services and be able to explain the relationship between the two. Understand the structure of an audit and have a firm grasp of the conceptual elements of the audit process. | None |
| 2 April 11 | Chapter 2 Auditing IT Governance Controls | <ul style="list-style-type: none"> Understand the risks of incompatible functions and how to structure the IT function. Be familiar with the controls and precautions required to ensure | None |

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| Week | Topics | Resource(s) ¹ | Due Dates |
|----------------------|--|---|--------------------|
| | | the security of an organization's computer facilities. | |
| 3 April 18 | Chapter 3 Security Part I: Auditing Operating Systems and Networks Good Friday - University officially closed | <ul style="list-style-type: none"> Be able to identify the principal threats to the operating system and the control techniques used to minimize the possibility of actual exposures. Be familiar with the principal risks associated with commerce conducted over intranets and the Internet and understand the control techniques used to reduce these risks. | Quiz #1 |
| 4 April 25 | Chapter 4 Security Part II: Auditing Database Systems | <ul style="list-style-type: none"> Understand the operational problems inherent in the flat-file approach to data management that gave rise to the database approach. Understand the relationships between the fundamental components of the database concept. | None |
| 5 May 02 | Chapter 5 System Development and Program Change Activities | <ul style="list-style-type: none"> Be able to identify the stages in the systems development life cycle (SDLC). Understand the importance of strategic system planning. | Quiz #2 |
| 6 May 09 | Chapter 6 Transaction Processing and Financial Reporting Systems Overview | <ul style="list-style-type: none"> Understand the components of data structures and how these are used to achieve data-processing operations. Be familiar with structures used in flat-file systems, including sequential, indexes, hashing, and pointer structures. | Homework #1 |
| 7 May 16 | Chapter 7 Computer-Assisted Audit Tools and Techniques | <ul style="list-style-type: none"> Be familiar with the classes of transaction input controls used by accounting applications. Understand the objectives and techniques used to implement processing controls, including run-to-run, operator inventions, and audit trail controls. | None |
| 8 May 23 | Chapter 8 Data Structures and CAATs for Data Extraction | <ul style="list-style-type: none"> Understand the components of data structures and how these are used to achieve data-processing operations. Be familiar with structures used in flat-file systems, including sequential, indexes, hashing, and pointer structures. | Quiz #3 |
| 9 May 30 | Chapter 9 Auditing the Revenue Cycle Chapter 10 Auditing the Expenditure Cycle | <ul style="list-style-type: none"> Understand the operational tasks associated with the revenue cycle under different levels of technology. Understand audit objectives | Homework #2 |

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| Week | Topics | Resource(s) ¹ | Due Dates |
|---------------|---|---|-----------|
| | | related to the revenue cycle. <ul style="list-style-type: none"> • Understand the primary tasks associated with the expenditure cycle under different levels of technology. • Understand audit objectives related to the expenditure cycle. | |
| 10 June 06 | Chapter 11 Enterprise Resource Planning System Chapter 12 Business Ethics, Fraud and Fraud Detection | <ul style="list-style-type: none"> • Understand the general functionality and key elements of enterprise resource planning (ERP) systems. • Understand the various aspect of ERP configuration including servers, databases, and the use of bolt-on software. • Understand the broad issues pertaining to business ethics. • Understand what constitutes fraudulent behavior. | None |
| June | Final Examination 10th to 13th | Details to be announced in class. | |

Please note:

¹ Additional course resources may be introduced throughout the semester. Students are obligated to actively monitor classroom communications for any changes to the reading assignments, homework assignments or course calendar.

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Other Important Course Policies

Changes to Syllabus – This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be addressed during class and posted in D2L.

Online Course Evaluations – Instructor and course evaluations provide valuable feedback that can improve teaching and learning. As students, you are in the unique position to view the instructor over time. Your comments about what works and what doesn't can help faculty build on the elements of the course that are strong and improve those that are weak. Isolated comments from students and instructors' peers may also be helpful, but evaluation results based on high response rates may be statistically reliable (believable). As you experience this course and material, think about how your learning is impacted. Your honest opinions about your experience in and commitment to the course and your learning may help improve some components of the course for the next group of students. Positive comments also show the department chairs and college deans the commitment of instructors to the university and teaching evaluation results are one component used in annual performance reviews (including salary raises and promotion/tenure). The evaluation of the instructor and course provides you with an opportunity to make your voice heard on an important issue – the quality of teaching at DePaul. Don't miss this opportunity to provide feedback!

Withdrawal – Students who withdraw from the course do so by using the Campus Connection system (<http://campusconnect.depaul.edu>). Withdrawals processed via this system are effective the day on which they are made. Simply ceasing to attend, or notifying the instructor, or nonpayment of tuition, does not constitute an official withdrawal from class and will result in academic as well as financial penalty.

Retroactive Withdrawal – This policy exists to assist students for whom extenuating circumstances prevented them from meeting the withdrawal deadline. During their college career, students may be allowed one medical/personal administrative withdrawal and one college office administrative withdrawal, each for one or more courses in a single term. Repeated requests will not be considered. Submitting an appeal for retroactive withdrawal does not guarantee approval. College office appeals for CDM students must be submitted online via MyCDM. The deadlines for submitting appeals are as follows:

- Autumn Quarter: Last day of the last final exam of the subsequent winter quarter
- Winter Quarter: Last day of the last final exam of the subsequent spring quarter
- Spring Quarter: Last day of the last final exam of the subsequent autumn quarter
- Summer Terms: Last day of the last final exam of the subsequent autumn quarter

Excused Absence – In order to petition for an excused absence, students who miss class due to illness or significant personal circumstances should complete the Absence Notification process through the Dean of Students office. The form can be accessed at <http://studentaffairs.depaul.edu/dos/forms.html>. Students must submit supporting documentation alongside the form. The professor reserves the sole right whether to offer an excused absence and/or academic accommodations for an excused absence.

Incomplete – An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term and when otherwise the student had a record of satisfactory progress in the course. CDM policy requires the student to initiate the request for an incomplete grade before the end of the term in which the course is taken. Prior to submitting the incomplete request, the student must discuss the circumstances with the instructor. Students may initiate the incomplete request process in MyCDM.

- All incomplete requests must be approved by the instructor of the course and a CDM Associate Dean. Only exceptional cases will receive such approval.

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- If approved, students are required to complete all remaining course requirements independently in consultation with the instructor by the deadline indicated on the incomplete request form.
- By default, an incomplete grade will automatically change to a grade of F after two quarters have elapsed (excluding summer) unless another grade is recorded by the instructor.
- An incomplete grade does NOT grant the student permission to attend the same course in a future quarter.

Students with Disabilities – Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential. To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at:

Student Center, LPC, Suite #370
Phone number: (773) 325.1677
Fax: (773) 325.3720
TTY: (773) 325.7296

Writing Center – *Need help with writing?* This course will require the completion of several writing assignments, as part of the homework assignments and final examination. The Writing Center provides help free-of-charge to all members of the DePaul University community. Please click this link for more information: <http://condor.depaul.edu/writing/instructors/syllabus.html>

Academic Calendar – Please refer to the following link for important dates including the date by which you can drop this class. <http://www.depaul.edu/university-catalog/academic-handbooks/graduate/university-information/Pages/academic-calendar.aspx>

Cross-listed Course IS 344 and IS 444 – Learning outcomes for graduate students will include analysis, synthesis and/or evaluation of key concepts discussed throughout the semester and graduate homework assignments are expected to be more rigorous than corresponding undergraduate assignments.