

MIS 5201 IT Audit Process Syllabus

Spring 2018

About the Instructor:

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Class Location and Time:

In Classroom (Alter Hall 0A602) & Online (via WebEx)

5:30 pm – 8:30 pm, Every Monday starting 1/22/2017 (Ref. to Schedule Section below for details)

Course Description

In this course, students will learn the IT auditing life cycle, from information gathering, planning, testing, reporting and issue tracking, etc. Students will also learn the overall IT audit framework and methodology and how IT audit fits into the overall internal audit function. Students will also learn how to develop and implement risk-based IT audit strategies and objectives in compliance with generally accepted audit standards to ensure that the organization's IT assets are adequately controlled, monitored, and assessed, and are aligned with its business objectives. Students will be introduced to basic audit techniques such as sampling methodology and approach, testing procedure developing, evidence gathers, finding analysis and write-ups, communication and escalation.

Course Objectives

1. Develop and implement a risk-based approach in compliance with IT audit standards ensuring that key areas of IT are included.
2. Design specific IT audits to verify whether information systems are protected, controlled and provide value to the organization.
3. Obtain and assess audit evidence that is sufficient, competent, relevant and useful in achieving audit objectives.
4. Analyze the information gathered to identify reportable conditions.
5. Report the results of the audit to key stakeholders and make recommendations; effect change when necessary.
6. Conduct follow-ups and prepare status reports to ensure that appropriate and timely actions have been taken by management.

Required Text Book and Materials

The materials for this course are drawn from multiple sources. Please see below:

- ISACA: Certified Information Systems Auditor, CISA Review Manual 2016/2017, ISBN: 978-160420-200-7
- Auditor's Guide to IT Auditing by Richard E. Cascarino ISBN# 978-1118-14761-0
- ITAF 3rd Edition (available online for free downloading)
- Global Technology Audit Guide (GTAG) 3 – Continuous Auditing (available online for free downloading)
- Global Technology Audit Guide (GTAG) 4 – Management of IT Auditing (available online for free downloading)
- Global Technology Audit Guide (GTAG) 11 – Developing the IT Audit Plan (available online for free downloading)
- Articles – mostly from the ISACA® Journal and Gartner, Inc.

**Details about the reading assignment will be provided in the class.*

MIS Community Site and Announcements

Class materials (notes, presentations, projects, in-class exercises and examples) will be uploaded to the MIS Community Site. The URL for the course is:

<http://community.mis.temple.edu/mis5201sec001sec701sp2018/welcome>

You are responsible for checking the site daily for updates and announcements. You should check the announcements area several times a week.

Evaluation and Grading

Item	% of Total Points
Class Participation	15%
Group Assignments	25%
Case Study	10%
Presentation	20%
Quizzes	15%
Final Exam	15%
Total	100%

Grade Scale

94 – 100	A	73 - 76	C
90 – 93	A-	70 - 72	C-
87 – 89	B+	67 - 69	D+
83 – 86	B	63 – 66	D
80 – 82	B-	60 – 62	D-
77 – 79	C+	Below 60	F

Participation between and during class

Student is expected to attend all classes for this course. It will be the students' responsibility to catch up in case he or she misses a class. To make up the missed class, students should reach out to classmates, check the class blog, find out the homework and team project, etc.

Soft skill sets such as written and oral communication skill is imperative to auditors. Therefore, students are strongly encouraged to participate the classroom discussion and to post thoughts and comments on the class blog for related topics each week.

Reading materials, projects and assignments are selected by instructors to bring the real-world IT audit scenario into the classroom to facilitate the instruction and illustrate the core concepts.

Class Participation

Fifteen percent of the course grade is allocated to the participation. Students will be evaluated based on class attendance, level of preparation, understanding of the core concepts, case study preparation, professionalism and team work. To be specific, students are expected to (a) preview the class materials before the class, familiar with the topics that will be discussed during the class every week. (b) participate the class discussion; demonstrate the understanding of the material and key concepts; show respect by paying attention while other students present their work (c) use the class blog to post your thoughts and comments regarding the assignments and reading material between the class. You are also required to comments on other students' blog entries.

Classroom Ground Rules:

- Arrive on time and stay till the end of the class
- No cell phone calls and texting in the class room
- Respect your classmates using commonsense
- Preview the reading assignment before attending the class
- Bring in questions and make contribution to your team

Group Assignments

Students will form groups to conduct a mock IT Operation audit and present the audit report to the Senior Management and the Board. Details of this project will be provided in the class. Students will also be evaluated how effectively contribute to group assignments. Students are

expected to actively participate the group assignments, complete the assigned portion of the write-ups and comments on others deliverables. **Twenty Five percent** of the grade will be allocated to the group or team project and its presentation.

Case Study

We will study a few cases related to IT service and delivery in real world. Details will be provided during the class. **Ten percent** of the course grade will be assigned to your participation and responses to questions related to case studies.

Presentation(s)

Students will be asked to present specific topics either individually or in group during the class. Detail requirements will be provided during the class. The most important presentation is at the end of the semester, which each group will select an emerging technology and assess the risks and controls associated with this technology while implementing it. **Twenty percent** of the grade will be allocated to those presentations.

Quizzes

To facilitate the CISA examination review, students will take a short quiz using CISA examination preparation questions on weekly basis except for a few weeks during the semester. Students are allowed to miss or drop one quiz during the semester. Additional missed quiz will receive a grade of zero. The average quiz score over the semester will be the grade for quizzes and weighted **Fifteen percent** of the total grade.

Final Exam

The final exam will use all multiple-choice CISA practice examination questions. The exam will be comprehensive and cover everything during the semester. **Fifteen percent** of the grade will be allocated to the final exam. Missed finals are in principle not allowed to have make-ups.

Late Assignment Policy

An assignment is considered late if it is turned in after the assignment deadlines stated above. No late assignments will be accepted without penalty.

- The project management simulation and individual report will be assessed a 20% penalty each day they are late. No credit is given for assignments turned in over five calendar days past the due date.
- Case analyses cannot be submitted late under any circumstances. If you miss the deadline, you'll need to choose another case study to submit.
- You must submit all assignments, even if no credit is given. If you skip an assignment, an additional 10 points will be subtracted from your final grade in the course.

- Plan ahead and backup your work. Equipment failure is not an acceptable reason for turning in an assignment late.

Plagiarism, Academic Dishonesty and Citation Guidelines

If you use text, figures, and data in reports that was created by others you must identify the source and clearly differentiate your work from the material that you are referencing. If you fail to do so you are plagiarizing. There are many different acceptable formats that you can use to cite the work of others (see some of the resources below). The formats are not as important as the intent. You must clearly show the reader what is your work and what is a reference to somebody else's work.

Plagiarism is a serious offence and could lead to reduced or failing grades and/or expulsion from the university. The Temple University Student Code of Conduct specifically prohibits plagiarism

Ref. to: <http://www.temple.edu/assistance/udc/coc.htm>

The following excerpt defines plagiarism:

Plagiarism is the unacknowledged use of another person's labor, ideas, words, or assistance. Normally, all work done for courses — papers, examinations, homework exercises, laboratory reports, oral presentations — is expected to be the individual effort of the student presenting the work. There are many forms of plagiarism: repeating another person's sentence as your own, adopting a particularly apt phrase as your own, paraphrasing someone else's argument as your own, or even presenting someone else's line of thinking in the development of a thesis as though it were your own. All these forms of plagiarism are prohibited both by the traditional principles of academic honesty and by the regulations of Temple University. Our education and our research encourage us to explore and use the ideas of others, and as writers we will frequently want to use the ideas and even the words of others. It is perfectly acceptable to do so; but we must never submit someone else's work as if it were our own, rather we must give appropriate credit to the originator.

Source: Temple University Graduate Bulletin, 2000-2001. University Regulations, Other Policies, Academic Honesty. Available online at:

<http://www.temple.edu/gradbulletin/>

For a more detailed description of plagiarism:

- Princeton University Writing Center on Plagiarism:
http://web.princeton.edu/sites/writing/Writing_Center/WCWritingRes.htm
- How to successfully quote and reference material: University of Wisconsin Writers Handbook
<http://www.wisc.edu/writing/Handbook/QuotingSources.html>
- How to cite electronic sources: Electronic Reference Formats Recommended by the American Psychological Association

<http://www.apastyle.org/electmedia.html>

Student and Faculty Academic Rights and Responsibilities

The University has adopted a policy on Student and Faculty Academic Rights and Responsibilities (Policy # 03.70.02) which can be accessed through the following link:

http://policies.temple.edu/getdoc.asp?policy_no=03.70.02

Grading Criteria

The following are the criteria used for evaluating assignments. You can roughly translate a letter grade as the midpoint in the scale (for example, an A- equates to a 91.5).

Grading	Criteria
A or A-	The assignment consistently exceeds expectations. It demonstrates originality of thought and creativity throughout. Beyond completing all of the required elements, new concepts and ideas are detailed that transcend general discussions along similar topic areas. There are few mechanical, grammatical or organizational issues that detract from the presented ideas.
B+, B & B-	The assignment consistently meets expectations. It contains all the information prescribed for the assignment and demonstrates a command of the subject matter. There is sufficient detail to cover the subject completely but not too much as to be distracting. There may be some procedural issues, such as grammar or organizational challenges, but these do not significantly detract from the intended assignment goals.
C+, C & C-	The assignment fails to consistently meet expectations. That is, the assignment is complete but contains problems that detract from the intended goals. These issues may be relating to content detail, be grammatical, or be a general lack of clarity. Other problems might include not fully following assignment directions.
Below C	The assignment constantly fails to meet expectations. It is incomplete or in some other way consistently fails to demonstrate a firm grasp of the assigned material.

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MIS5201 IT Audit Process Schedule

	ISACA Topics	Coverage	Notes/Reading/Assignment
Week 1 1/22	Introduce to Audit Function	<ul style="list-style-type: none"> • Class Introduction • Explain Syllabus • Internal & External Audit Overview <p>Video: 2017 Oscars Drama</p> <p>https://www.youtube.com/watch?v=-43mjlMFaWY</p> <p>-----</p> <p>Self-assessment Quiz</p>	<p><i>CISA Review Manual</i></p> <p><i>1.3.1 ISACA Code of Professional Ethics</i></p> <p><i>1.3.6 ITAF</i></p> <p><i>1.5.1 Audi Objectives</i></p> <p><i>1.5.2 Types of Audits</i></p> <p><i>Auditor's Guide to IT Auditing</i></p> <p><i>Chapter 1: Technology and Audit</i></p> <p><i>Chapter 2: IT Audit Function Knowledge</i></p>
Week 2 1/29	Introduce to IT Audit Function	<ul style="list-style-type: none"> • Announce team memberships • Internal Audit Methodology Overview • IT Audit Overview • C.I.A Triad • ITAF & IIA Practitioners Standards <p>Video: Basic IT Controls:</p> <p>https://youtu.be/XHuPkkli6HA</p> <p>-----</p> <p>Quiz#1</p>	<p><i>CISA Review Manual</i></p> <p><i>1.3.2 ISACA IS Audit and Assurance Standards</i></p> <p><i>1.3.3 ISACA IS Audit and Assurance Guideline</i></p> <p><i>1.3.4 ISACA IS Audit and Assurance Tools and Techniques</i></p> <p><i>1.3.5 Relationship Among Standards, Guidance and Tools and Techniques</i></p> <p><i>Auditor's Guide to IT Auditing</i></p> <p><i>Chapter 5 Internal Control Concepts Knowledge</i></p> <p><i>Chapter 7 Audit Planning Process</i></p> <p>=====</p> <p><i>Group Assignment #1: Arthur Anderson Case Study – Due 2/11</i></p>
Week 3 2/5	IT Risk Assessment	<ul style="list-style-type: none"> • Introduction to IT Risk Assessment 	<p><i>CISA Review Manual</i></p> <p><i>1.4.4 COBIT 5</i></p>

	and COSO Framework	<ul style="list-style-type: none"> • Introduction to COSO • ITAF (cont.) <p>-----</p> <p>Quiz# 2</p>	<p><i>1.4.1 Risk Analysis</i> <i>1.5.3 Audit Methodology</i> <i>1.5.4 Risk-Based Auditing</i> <i>1.5.5 Audit Risk and Materiality</i> <i>1.5.6 Risk Assessment Techniques</i> <i>1.5.7 IS Audit Risk Assessment Techniques</i></p> <p><i>Auditor's Guide to IT Auditing</i> <i>Chapter 3: IT Risk and Fundamental Auditing Concepts</i> <i>Chapter 4 Standards and Guidance for IT Auditing</i> <i>Chapter 6: Risk Management of the IT Function</i></p> <p><i>Additional Reading</i> <i>Gartner -</i> <i>it_audit_standards_framework_234810</i></p> <p><i>Class Presentation #1</i> – Prepare an audit scope presentation to Internal Audit Senior Managers for challenge and approval – 2/25</p>
Week 4 2/12	IT Controls and COBIT5	<ul style="list-style-type: none"> • IT Risk Categories • IT Controls vs. General Controls • IT Audit Framework Overview • <u>Group Assignment #1 in class discussion</u> <p>Quiz# 3</p>	<p><i>CISA Review Manual</i> <i>1.2.2 IS Audit Resource Management</i> <i>1.2.3 Audit Planning</i> <i>1.2.4 Effect of Laws and Regulations on IS Audit Planning</i></p>
Week 5 2/19	IT Audit Planning	<ul style="list-style-type: none"> • IT Audit Planning Process • Annual audit plan vs. entity audit plan • Audit cycle • Audit Team member roles and responsibilities • Planning deliverable <p>Quiz #4</p>	<p><i>CISA Review Manual</i> <i>1.4.2 Internal Controls</i> <i>1.4.3 IS Control Objectives</i> <i>1.4.5 General Controls</i> <i>1.4.6 IS Specific Controls</i></p>
Week 6 2/26	Class Presentation I	<i>Class Presentation #1: Prepare an audit scope presentation to Internal</i>	

		<i>Audit Senior Managers for challenge and approval</i>	
		Guest Panel Challenging	
Week 7 3/5	No class	Spring Break	<i>CISA Review Manual</i> 1.5.11 Evidence 1.5.12 Interview and Observation Personnel in Performance of Their Duties 1.5.10 Compliance vs. Substantive Testing 1.5.13 Sampling <i>Auditor's Guide to IT Auditing</i> Chapter 8: Audit Management Chapter 9: Audit Evidence Process Pre-review a Case study - Liberty Bell Hospital: A Case Study In Employee Information Systems Fraud
Week 8 3/12	Control Testing	<ul style="list-style-type: none"> • Audit evidence and testing techniques • Sampling methodology and sample rationale • Lead sheet and attribute testing <p>-----</p> Quiz# 5	<i>Group Assignment # 2</i> Prepare flow chart for a business cycle and identify key controls (business and IT) – due 3/18
Week 9 3/19	IT Controls and Business Processes	In class room case illustration (Group Assignment #2): Business Process and IT controls (purchasing, payroll, A/P and A/R, wire transfer...etc.) Guest Speaker – Life at public accounting firm (TBD) <p>-----</p> Quiz# 6	<i>CISA Review Manual</i> 1.6.1 Audit Report Structure and Contents 1.6.2 Audit Documentation <i>Auditor's Guide to IT Auditing</i> Chapter 10: Audit Reporting Follow up
Week 10 3/26	Audit Reporting and Issue	<ul style="list-style-type: none"> • Issue Development • IT Audit Reporting • Issue Tracking 	<i>CISA Review Manual</i> 1.8.1. Integrated Audit 1.8.2 Continuous Monitoring and

	Tracking	<p>-----</p> <p>Quiz# 7</p>	<p><i>Auditing</i></p> <p><u>Class Presentation #2</u> Present IT Audit Findings to Auditees – Due Date 4/8</p> <p>Additional Readings:</p> <p>AICPA - Service organization control audit & SOC 2® examinations ISACA Article about CAATs – To be provided</p>
Week 11 4/2	Control Self-assessment and IT Service Provider Auditing	<ul style="list-style-type: none"> • Control Self-assessment • Audit Third Party Service providers IT controls • <u>In classroom Case Study #1:</u> Liberty Bell Hospital: A Case Study In Employee Information Systems Fraud <p>Quiz# 8</p>	<p>CISA Review Manual 1.7 Control Self-assessment</p>
Week 12 4/9	Class presentation II	<p><i>Class Presentation #2 Present IT Audit Findings to Auditees</i></p> <p>Panel Challenge</p>	<p><u>Group Assignment #3:</u> Bangladesh Central Bank SWIFT breach – What went wrong and how IT audit can prevent this kind of event from happening? Due Date 4/22</p>
Week 13 4/16	CAATs, QA/QC & Case Study	<ul style="list-style-type: none"> • CAATs and GRC tool • Continuous Auditing • QA/QC and peer review • Robotic Process automation’s impact to audit process • <u>In Classroom Case Study #2 -</u> The Compliance Journey at Trinity Industries (HBP) <p>Guest speaker – IT Audit in real life (TBD)</p> <p>-----</p> <p>Quiz #9</p>	<p>Additional Reading:</p> <p>SOC for Cybersecurity examinations IPPF – QA – To be provided GTAG 3 – Continuous Auditing</p>

Week 14 4/23	Special Topic	<ul style="list-style-type: none"> Service Organization Control Report Audit in including SOC for cybersecurity <p>-----</p> <p>Quiz# 10</p>	
Week 15 4/30		Study Week – No Class	
Week 16 5/7		Final Exam (CISA Mock Exam)	

*** **CISA Review Manual 2014:** Chapter 4 Information Systems Operations, Maintenance and Support and Business Continuity part of Chapter 2 will be covered through the semester.