



ACCT 548: IT AUDIT AND DATA APPLICATIONS
Fall 2018 (scheduled in 001) + 80 minute Friday Labs
3 units

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CoRequisite: ACCT 541: Auditing in the Data Age

COURSE DESCRIPTION

This course has been designed to provide graduate level accounting students with an understanding of the implications of technology on financial statement audits, including risk assessment, substantive audit evidence, and deepening the auditor's understanding of the underlying transactions using leading industry tools employed by large professional services firms.

COURSE OBJECTIVES

Upon completion of this course, students should be able to:

1. Understand how auditors successfully collect, prepare, analyze, use and communicate data as audit evidence;
2. Master audit concepts including, but not limited to, integrity of data inputs, data security, data privacy, and data quality (completeness, accuracy, availability, etc.);
3. Apply industry guidance as it relates to auditing and using data analytics (i.e. AICPA, SOX, PCAOB, etc.);
4. Make judgments and decisions when uncertainty exists;
5. Apply audit procedures using the industry leading tools to case studies and exercises;
6. Analyze results of audit procedures to determine risks to an organization's internal control structure and the ramifications to the financial statements;
7. Create audit documentation to record evidence of procedures performed;
8. Understand current issues in the IT industry and the potential future impact to the industry and profession.

COURSE MATERIALS

The required reading materials for the course is the following and is available in the USC bookstore:

- Hall, James, A., (2016). Information Technology Auditing. Cengage Publishing (9781133949886)

The remaining materials are available via the Internet:

- Sarbanes Oxley Act – Available at <https://www.congress.gov/bill/107th-congress/house-bill/3763>.
- AICPA: <http://www.aicpa.org>
 - Statements on Auditing Standards (SAS or AU-C) - On the top of the AICPA's home-page go to Research and click on the Standards sub category. In the left column of the screen, click on Audit and Attest Standards and then on Clarified Statements on Auditing Standards. You should then see references to the section numbers.)
 - Audit Considerations Relating to an Entity Using a Service Organization - <https://www.aicpa.org/content/dam/aicpa/research/standards/auditattest/downloadabledocuments/au-c-00402.pdf>
 - Reporting on an Examination of Controls at a Service Organization Relevant to User Entities' Internal Control Over Financial Reporting - <https://www.aicpa.org/content/dam/aicpa/research/standards/auditattest/downloadabledocuments/at-c-00320.pdf>
 - Audit Data Analytics Website – <http://www.aicpa.org/InterestAreas/FRC/AssuranceAdvisoryServices/Pages/AuditAnalytics.aspx>
 - Data Analytics Guide - <https://www.aicpa.org/interestareas/frc/assuranceadvisoryservices/pages/auditdataanalyticsguide.aspx>
 - Segregation of Duties - <http://www.aicpa.org/InterestAreas/InformationTechnology/Resources/Auditing/InternalControl/Pages/value-strategy-through-segregation-of-duties.aspx>
- SEC Filings: <http://www.sec.gov/edgar/searchedgar/webusers.htm>
- Institute of Internal Auditors – North America: <https://na.theiia.org/Pages/IIAHome.aspx>
 - COSO Internal Control – Integrated Framework – Executive Summary - https://na.theiia.org/standards-guidance/topics/Documents/Executive_Summary.pdf

Additionally, I will post links to additional readings on Blackboard. It is your responsibility to ensure you check Blackboard frequently throughout the course to ensure you are aware of all necessary reading assignments.

Finally, you will need access to a computer (either PC or Mac, although PC is preferred) to complete the exercises and group projects in this course.

GRADING

Final grades represent how you perform in the class relative to other students. Your grade will not be based on a mandated target, but on your performance. Historically, the average grade for this class is about a 3.3 but may vary based on class performance. Three items are considered when assigning final grades:

1. Your average weighted score as a percentage of the available points for all assignments (the points you receive divided by the number of points possible).
2. The overall average percentage score within the class.
3. Your ranking among all students in the class.

Grades will be based on the following:

<u>Assignments</u>	<u>% of Overall Grade</u>
Mid-Term Examination	30%
Final Examination	30%
Case Studies (5)	25%
IDEA Homework Exercises (2)	5%
Class Contributions	10%
TOTAL	100%

EXAMS

Exams may include: multiple-choice questions, short answer / brief essay questions, exercises, and problems. Preparing for exams involves dedication and ends only when you can: 1) identify the relevant issues in a given business situation; 2) analyze the data and transform it into information to be used in a comprehensive answer; and 3) explain what you did using techniques demonstrated in class. The best bet for success involves a number of steps. First, is making sure you do the advanced preparation for each class session. Second is reworking problems done in class and trying other additional problems. Third is making sure you ask questions in a real-time manner to solidify your understanding of the material as we go, rather than trying to ‘get it’ right before an exam. Remember, on exams you will be required to perform all work (e.g., problem setup, solution generation, and answer presentation) on your own.

During the semester, each exam will be returned as soon as possible after it has been given. After each test is returned, you will have one week to discuss your grade. After this time, grades on tests become final. All other grades are final once given.

The Leventhal School of Accounting policy states that exams should not be missed unless there is a very serious emergency AND it can be properly documented. Also, to the extent possible, you must inform the instructor of the emergency prior to the exam (it is understood this is not always possible). If you miss an exam for something other than a serious emergency and / or you cannot provide documentation, you will receive a zero grade for the exam. If there is a serious emergency, you can provide proper documentation and (when possible) have notified me before the exam, a substitute grade will be calculated based on the normalized average of your other exam(s). There will be no make-up exams.

The final exam must be taken at the scheduled time unless an incomplete contract has previously been approved per Leventhal School of Accounting guidelines.

CASE STUDIES

Five (5) case studies and associated questions relating to the case will be handed out during the course. The questions for the case are meant to test your understanding of the course material, as well as applying this material to information stated within the case. The answers to your questions should be thorough and demonstrate a reasonable consideration of the case issues. These answers will be collected prior to our discussion of the case. Answers that are superficial and only demonstrate a topical understanding of the course or case material will be considered unsatisfactory and graded accordingly.

LAB PROJECTS

Lab projects and exercises will be introduced throughout the course. These projects will test the student's ability to apply what we learned in class using the technology and tools used by industry leading firms. These projects will be completed either during the lab sessions for the course or if necessary, completed externally by the students. More information for the lab projects will be provided throughout the course.

CLASS CONTRIBUTION

Class contribution points are awarded for being engaged and involved in the classroom discussion. Points are not awarded for merely attending class. Instead, an assessment will be made on how much each student contributed positively to the classroom experience.

HOMEWORK

There will be two homework projects relating to learning how to use the IDEA data analytics software. These homework assignments will include completing two significant work book tasks relating to an Accounts Receivable Audit and an Accounts Payable Audit and Fraud Investigation. More information will be provided about these assignments during the semester.

ADDITIONAL INFORMATION

Retention of Graded Coursework

Exams will be retained for one-year after the end of the course. All other assignments including class exercises and group projects will be handed back in class. It is your responsibility to either collect your graded assignments or to make arrangements to pick them up. Any such assignments not picked up will be retained until the end of the semester. These assignments will be discarded one week after beginning of the next semester.

Technology Policy

Laptop and Internet usage is not permitted during academic or professional sessions unless otherwise stated by the professor. Use of other personal communication devices, such as cell phones, is considered unprofessional and is not permitted during academic or professional sessions. Upon request, all electronic devices in your possession must be completely turned off and / or put face down on the desk in front of you. In addition, at certain times (i.e., during exams), you might also be asked to deposit your devices in a designated area in the classroom.

Recordings

No student may record any lecture, class discussion or meeting with the professor without the professor's prior express written permission. The word "record" or the act of recording includes, but is not limited to, any and all means by which sound or visual images can be stored, duplicated or retransmitted whether by an electro-mechanical, analog, digital, wire, electronic or other device or any other means of signal encoding. The professor reserves all rights, including copyright, to lectures, course syllabi and related materials, including summaries, PowerPoints, prior exams, answer keys, and all supplementary course materials available to the students enrolled in this class whether posted on Blackboard or otherwise. They may not be reproduced, distributed, copied, or disseminated in any media or in any form, including but not limited to all course note-sharing websites. Exceptions are made for students who have made prior arrangements with DSP and the professor.

STATEMENT OF ACADEMIC CONDUCT AND SUPPORT SYSTEMS

USC seeks to maintain an optimal learning environment. Students are expected to submit original work. They have an obligation both to protect their own work from misuse and to avoid using another's work as their own. All students are expected to understand and abide by the principles of academic honesty outlined in the University Student Conduct Code (see University Governance, Section 11.00) of SCampus (www.usc.edu/scampus or <http://scampus.usc.edu>). The recommended sanctions for academic integrity violations can be found in Appendix A of the Student Conduct Code.

Students with Disabilities:

USC is committed to making reasonable accommodations to assist individuals with disabilities in reaching their academic potential. If you have a disability which may impact your performance, attendance, or grades in this course and require accommodations, you must first register with the Office of Disability Services and Programs (www.usc.edu/disability). DSP provides certification for students with disabilities and helps arrange the relevant accommodations. Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to your TA) as early in the semester as possible. DSP is located in GFS (Grace Ford Salvatori Hall) 120 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776. Email: ability@usc.edu.

Support Systems:

Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. <https://engemannshc.usc.edu/counseling/>

National Suicide Prevention Lifeline - 1-800-273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. <http://www.suicidepreventionlifeline.org>

Relationship & Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. <https://engemannshc.usc.edu/rsvp/>

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: <http://sarc.usc.edu/>

Office of Equity and Diversity (OED)/Title IX compliance – (213) 740-5086

Works with faculty, staff, visitors, applicants, and students around issues of protected class. <https://equity.usc.edu/>

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. <https://studentaffairs.usc.edu/bias-assessment-response-support/>

Student Support & Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. <https://studentaffairs.usc.edu/ssa/>

Diversity at USC – <https://diversity.usc.edu/>

Tabs for Events, Programs and Training, Task Force (including representatives for each school), Chronology, Participate, Resources for Students

COURSE OUTLINE AND ASSIGNMENTS

Class #	Date	Description and Deliverables	Class Preparation Activities (R: Review Problems; D: Discussion Problems; P: Problems)
1	8/21/18	Class Introduction	Read Syllabus
2	8/23/18	Financial Statement Audits & IT Control Considerations	Hall – Ch. 1; R: 10-12, 13, 17, 21; D: 12, 13; P:1; Read Sarbanes Oxley Act – Sections 302, 404, 906 (See course materials section of syllabus for the link.)
Lab #1	8/24/18	No lab	N/A
3	8/28/18	IT Governance & IT Control Implications	Hall – Ch. 2; R: 7, 18-20; D: 1,3,11,23-24; P: 5; Review AICPA website regarding standards about service organizations (Sections AU-C 402, AT-C 320)
4	8/30/18	IT General Controls (ITGCs) Introduction & Security (OS & Network)	Hall – Ch. 3; R: 3,7,12,23; D: 10,11; P: 2, 3,
Lab #2	8/31/18	No lab	N/A
5	9/4/18	ITGCs Continued - System Development Life Cycle	Hall – Ch. 5; R: 2,4,11,16,26; D: 6,12,17; P:9,10,
6	9/6/18	Transaction Processing and Financial Reporting Systems	Hall – Ch. 6; R: 10,20,22-23,37-38; D: 7,14,16;
Lab #3	9/7/18	No lab	N/A
7	9/11/18	Documentation of System Processing	Hall – Ch. 6; P: 8, 12
8	9/13/18	Flowcharting Class Exercise	N/A
Lab #4	9/14/18	Visio exercise - Network diagramming	N/A
9	9/18/18	IT Application Controls	Hall – Ch. 7: R: 13,14,18; D: 1-6, 14; P1
10	9/20/18	Midterm Review	N/A
Lab #5	9/21/18	On-site at GUESS?	N/A
11	9/25/18	Discussion about GUESS? Visit, Case #1 Introduction & Group Discussions	N/A
12	9/27/18	MIDTERM	N/A
Lab #6	9/28/18	No lab	N/A
13	10/2/18	Introduction to Databases and Auditing Databases	Hall – Ch. 4; R: 2,5,9,13; D: 8,17;
14	10/4/18	MS Access Database Walkthrough and Exercise (Case #1 Due)	N/A
Lab #7	10/5/18	Introduction to Big Data, Data Analytics & Data Cleansing	Read AICPA Materials on Data Analytics
15	10/9/18	Auditing Revenue Process	Hall – Ch. 9; R: 4, 10-12; D: 1, 4; P: 1

16	10/11/18	Auditing Expenditure Cycle	Hall – Ch. 10; R: 1,5,8,15; D: 2,4; P: 4,9,
Lab #8	10/12/18	Introduction to IDEA, Case #2 Introduction & Group Discussion	N/A
17	10/16/18	IDEA – A/R Audit	Review IDEA Workbook Section #2.
18	10/18/18	IDEA – A/P Audit and Fraud Investigation	Review IDEA Workbook Section #3.
Lab #9	10/19/18	On-site at Pacific West Bank	N/A
19	10/23/18	Discussion about Pacific West Bank Visit, Case #2 Discussion & De-Brief (Case #2 Due)	N/A
20	10/25/18	Audit Applications of eAAT software	N/A
Lab #10	10/26/18	eAAT exercise and Case #3 (eAAT Exercise) Introduction	N/A
21	10/30/18	Case #3 (eAAT Exercise) Discussion & De-Brief (Case #3 Due)	
22	11/1/18	Ethics, Fraud Schemes and Fraud Detection	Hall – Ch. 12; R:17,22,25; D: 5,20,25,32,34
Lab #11	11/2/18	No lab	
23	11/6/18	Ethics, Fraud Schemes and Fraud Detection	N/A
24	11/8/18	Audit Applications of KAAP exercise	N/A
Lab #12	11/9/18	KAAP exercise & Case #4 (KAAP Exercise) Introduction	N/A
25	11/13/18	Case #4 (KAAP Exercise) Discussion & De-Brief (Case #4 Due); Introduction to Data Visualization	N/A
26	11/15/18	Tableau Demo and Case #5 (Tableau) Introduction	Watch Tableau videos. See links on Blackboard.
Lab #13	11/16/18	On-site at Lionsgate Entertainment	
27	11/20/18	Discussion about Lionsgate Entertainment Visit and Tableau Exercise (Case #5 work day)	N/A
28	11/22/18	Thanksgiving Holiday	
Lab #14	11/23/18	No Lab	N/A
29	11/27/18	Catch Up Day	N/A
30	11/29/18	Course Summary and Wrap Up	N/A
Lab #15	11/30/18	No Lab	N/A
	12/6/18	FINAL EXAM (11AM – 1PM)	