

USC Leventhal School of Accounting

ACCT-548L: IT AUDIT AND DATA APPLICATIONS Fall 2020 + 80 minute Friday Labs 3 units

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Co-requisite: ACC 541L: Auditing in the Enhanced Data Age

CLASS DAY AND TIME

This class will be entirely online. Synchronous class sessions will be held Wednesdays from 5:00 p.m. to 7:50 p.m. Labs will be held some Fridays, either from 8:00 to 11:30 a.m. (with no lab on those days for ACCT 541L) or from 8 a.m. to 9:20 a.m. via Zoom. The Zoom link is posted with your Blackboard course pages.

OFFICE HOURS

Office hours will be held on Thursdays from 12:00 to 1:00 p.m. and as needed by students via Zoom. The Zoom link is posted with your Blackboard course pages.

COURSE FORMAT

All course materials can be found in Blackboard (<https://blackboard.usc.edu>). Session activities may include reading assignments, weekly lessons, interactive exercises, homework assignments, Blackboard discussion forums, class sessions, and quizzes or exams. It is expected that students will have completed all required activities and assignments *before* attending each class session.

Students should ensure that they can access all online tools via Blackboard prior to the start of classes.

Zoom is the platform used for all online sessions and online office hours. A link and instructions to join the Zoom sessions will be posted in the Blackboard Course Pages. For more information about Zoom, go to: [Zoom Support Tutorials](#)

CLASSROOM POLICIES

1. Class attendance and participation is important in developing a coherent view of the materials covered in the course. Unless accommodated as described in (b) below, attendance and active participation is expected at the synchronous Zoom class sessions.

- a. Students are expected to have cameras on during the synchronous Zoom sessions, and preferably use headsets or earphones to ensure the best audio quality. *Please advise me if you have circumstances under which you will not be able to meet these expectations.*
 - b. For students located in a time zone where the synchronous class sessions or exams fall outside the window of 7 a.m. to 10 p.m. in your local time zone, please contact me. You will not be penalized for not attending the live Zoom class sessions. The Zoom sessions will be recorded and posted on Blackboard, and you will be responsible for watching the recorded sessions. Exams and other synchronous assessments will be scheduled for students to be able to complete the assessment between 7 a.m. and 10 p.m. in your local time zone.
 - c. In addition, for any student who does not attend the Zoom session live, please notify the professor in advance and you will be required to complete a supplementary assignment as an alternate method of contribution to the class.
2. During synchronous Zoom sessions, the following netiquette is expected, as if you were in a physical classroom.
- a. Please do:
 - i. Log into class early or promptly
 - ii. Arrange to attend class where there is a reliable internet connection and without distractions
 - iii. Dress respectfully. Video conference business meetings are and will be the norm, so practice your professional telepresence.
 - iv. If you use a virtual background, please keep it respectfully professional.
 - v. Display both your first and last name during video conferencing and synchronous class meetings.
 - vi. Respectfully minimize distractions by muting and or turning off video if necessary and when appropriate.
 - vii. Engage in appropriate tone and language with instructors and classmates.
 - b. Please try not to:
 - i. Engage in a simultaneous activity not related to the class.
 - ii. Interact with persons who are not part of the class during the class session.
 - iii. Leave frequently or not be on camera for extended periods of time.
 - iv. Have other persons or pets in view of the camera.
3. Zoom sessions will be recorded and posted in the Blackboard Course pages.

TECHNOLOGY REQUIREMENTS

The following equipment and system requirements are recommended to successfully participate in this online course:

- Computer with webcam
- Earphones or headset
- Reliable (preferably high speed) Internet connection
- Current operating system for Windows or Mac

- Current browser
 - Google Chrome
 - Firefox
 - Internet Explorer (not recommended)
 - Safari (Mac)

For technical support please see:

- **USC Systems** (Blackboard, USC Login, MyUSC, USC Gmail, GoogleApps)
For assistance with your USC login or other USC systems, please call +1 (213) 740-5555 or email Consult@usc.edu. They are open Mon – Fri 9:30am – 5pm and weekends from 8am - 5pm (all Pacific time).
- **Zoom Video Web Conferencing System** (MarshallTALK)
For assistance using Zoom, go to [Zoom Support Page](#). You may also call +1 (888) 799-9666 ext. 2. They are available 24/7.
- **Marshall Systems** (MyMarshall, Marshall Outlook email)
For assistance with Marshall systems you can call +1 (213) 740-3000 Mon-Fri 8am-6pm (Pacific), email HelpDesk@marshall.usc.edu, or use our self-help service portal as shown below. The portal allows you to get immediate assistance by searching for the information you need. You can also use it to chat with a technician or input a request. To access the service portal, follow these steps:
 - On a computer or mobile device, go to [MyMarshall Home Page](#) and click the “**Help**” link on the upper right.
 - Log in using your Marshall username and password.
(If you don’t know your Marshall login please follow the onscreen instructions pertaining to login issues)

If your computer does not have Microsoft Word, Office 365 package is available to you free of charge and allows you to install Word, Excel, PowerPoint, Outlook, OneNote, Publisher, and Access on up to 5 PCs or Macs and Office apps on other mobile devices including tablets. Office 365 also includes unlimited cloud storage on OneDrive. To download Office 365 log into your student (University) email through a web browser, choose Settings (top right corner), and select software. If you have further questions or need help with the software, please contact the USC ITS service portal.

<u>COURSE DESCRIPTION</u>

This course has been designed to provide graduate level accounting students with an overview of the implications of technology on financial statement audits—including IT general computer controls, application controls, risk assessment, substantive audit evidence—and deepening an auditor’s understanding of the underlying transactions using leading industry tools employed by large professional services firms. Because this is a graduate course, there is a fair amount of reading from the textbook and participation in a lab environment will be required. Additionally, a co-requisite will be ACCT 541L, Enhanced Auditing in the Data Age.

COURSE OBJECTIVES

Upon successful completion of this course, students will be able to:

1. Describe industry guidance for IT auditing and using data analytics
2. Describe the IT general computer control environment and relevant controls
3. Identify and evaluate application controls relevant to financial reporting
4. Explain audit concepts including, but not limited to, integrity of data inputs, data security, data privacy, and data quality (completeness, accuracy, availability, etc.)
5. Describe how auditors collect, prepare, analyze, use and communicate data as audit evidence
6. Apply audit procedures using industry-leading tools to case studies and exercises
7. Analyze results of audit procedures to determine risks to an organization's internal control structure and the ramifications to the financial statements
8. Describe current issues in the IT industry and the potential future impact to the industry and profession

COURSE MATERIALS

The required course textbook can be obtained from the USC bookstore or through Cengage (Cengage Unlimited four-month subscription along with options to rent a hard copy) at

<https://www.cengage.com/c/information-technology-auditing-4e-hall/9781133949886PF/>

- Hall, James, A., (2016). Information Technology Auditing. Cengage Publishing (ISBN 978-1-133-94988-6)

Available on the Internet:

- Sarbanes Oxley Act – Available at <https://www.congress.gov/bill/107th-congress/house-bill/3763>
- PCAOB Documents
Available on the PCAOB website at www.pcaobus.org (On the PCAOB's home-page, click on headings for links to Standards, which then contain links to the relevant documents.)
 - Statements on Auditing Standards (SAS or AU-C)
Available on the AICPA website at www.aicpa.org (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.)
 - SEC Staff Accounting Bulletins: <http://sec.gov/>
 - SEC Filings: <http://sec.gov/edgar/searchedgar/webusers.htm>

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GRADING

Grading Policies:

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 Points</u>	<u>% of Overall Grade</u>
Midterm Exam	250	25%
Final Exam	250	25%
Case Studies/Lab (3)	360	36%
Assignments (1)	40	4%
Class Contribution	100	10%
TOTAL	1000	100%

All assignments must be turned in on time to receive any credit. No late materials will be accepted.

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 / Lab Projects

Three (3) case studies / lab assignments 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 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.

Homework Assignments

There will be one homework assignment relating to ITGCs and a guest speaker. More information will be provided about these assignments during the semester.

I may request peer evaluations for all groups and individuals for each case as well as for in-class assignments. Although peer evaluations do not correlate directly to grade points, it is information that I will consider when evaluating a student's group project score.

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.

COURSE OUTLINE			
	Dates	Topic	Readings/Assignments <i>Read Book: IT Auditing; Hall, 4th Edition</i> <i>R: Review Questions;</i> <i>D: Discussion Questions;</i> <i>P: Problems</i>
Week 1	8/19	Course overview Overview of IT Audit and IT Governance	
	8/21	No lab	
Week 2	8/26	Data Analytics Overview Amy Chiang – Senior Manager, MGO: <i>Audit Data Analytics and IDEA</i>	
	8/28	Lab: Accessing Marshall Virtual Lab	
Week 3	9/2	Financial Statement Audits & IT Control Considerations Michael Wong – Partner, PwC Southwest Risk Assurance Market Team Leader: <i>SOC 1 & SOC 2 attestations</i>	<ul style="list-style-type: none"> • Hall – Chapter 1 • R: 10-12, 13, 16, 18, 25; D: 1 • AU-C Section 402
	9/4	Lab: Power BI Overview Lisa Miyake, Senior Program Manager, Laserfiche Business Intelligence	
Week 4	9/9	IT General Controls (ITGCs) Introduction	<ul style="list-style-type: none"> • Hall – Chapter 2 • R: 1, 2, 7, 15, 18-21, 24, 28; D: 2, 7, 10, 11, 12, 13, 17, 19, 24
	9/11 (8:00-11:30)	No Lab – ACCT 541L (PwC Parsons)	
Week 5	9/16	Security Part 1 (OS & Network)	<ul style="list-style-type: none"> • Hall – Chapter 3 • Review: 3, 7, 12, 23; D: 1, 7, 10, 11; P: 2, 3, 7
	9/18	Lab: IDEA - Accounts Receivable Audit	

Week 6	9/23	ITGCs Continued – System Development Life Cycle	<ul style="list-style-type: none"> Hall – Chapter 5 R: 1, 2, 3, 5, 24, D: 6-8, 12, 16
	9/25	Lab: IDEA - Accounts Receivable Audit (continued)	
Week 7	9/30	Auditing Database Systems	<ul style="list-style-type: none"> Hall – Chapter 4 R: 1, 2, 5, 9, 13, 22, 23
	10/2 (8:00-11:30)	No Lab—ACCT 541L	
Week 8	10/7	Transaction Processing and Financial Reporting Systems Case: Documentation of System Processing; Flowcharting Intro Midterm Review	<ul style="list-style-type: none"> Hall – Chapter 6 R: 2, 10, 16, 20
	10/9 (8:00-11:30)	Firm Lab Day	
Week 9	10/14	Midterm exam	
	10/16	No Lab	
Week 10	10/21	Computer-Assisted Audit Tools and Techniques	<ul style="list-style-type: none"> Hall – Chapter 7 R: 1, 4, 5, 8, 10, 11; D: 1-6; P: 1
	10/23	Lab: IDEA: Accounts Payable Audit	
Week 11	10/28	Auditing Revenue Cycle	<ul style="list-style-type: none"> Hall – Chapter 9 R: 2, 3, 4, 10, 12, 16; D: 1, 3, 4
	10/30	Lab: IDEA: Accounts Payable Audit (continued)	
Week 12	11/4	Auditing Expenditure Cycle	<ul style="list-style-type: none"> Hall – Chapter 10 R: 1, 2, 6, 8, 14, 15, 17; D: 2, 4
	11/6 (8:00-11:30)	No Lab – ACCT 541L (Deloitte CHLA)	
Week 13	11/11	Review for final exam	Student observations
	11/13	No Lab	
	11/18	Final exam	

STATEMENT ON ACADEMIC CONDUCT AND SUPPORT SYSTEMS

Academic Conduct:

Students are expected to make themselves aware of and abide by the University community's standards of behavior as articulated in the [Student Conduct Code](#). Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct at <http://policy.usc.edu/scientific-misconduct>.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call
studenthealth.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call
suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention and Services (RSVP) - (213) 740-9355(WELL), press "0" after hours – 24/7 on call
studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED)- (213) 740-5086 | Title IX – (213) 821-8298
equity.usc.edu, titleix.usc.edu

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following *protected characteristics*: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations. The university also prohibits sexual assault, non-consensual sexual contact, sexual misconduct, intimate partner violence, stalking, malicious dissuasion, retaliation, and violation of interim measures.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298
usc-advocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity | Title IX for appropriate investigation, supportive measures, and response.

The Office of Disability Services and Programs - (213) 740-0776
dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Support and Advocacy - (213) 821-4710

uscsa.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101

diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.

Appendix IA. MARSHALL GRADUATE PROGRAMS LEARNING GOALS

How ACCT 548L Contributes to Leventhal Graduate Program Learning Goals

Leventhal Graduate Program Learning Goals	ACCT 548L Objectives that support this goal	Assessment Method*
<p>1. Technical, Conceptual, Problem-Solving</p> <p>Students will be competent in and be able to apply discipline-specific knowledge and skills in the fields of accounting and auditing. This learning outcome includes the development of critical thinking and problem-solving skills, as well as an understanding of the strategic role of accounting and auditing in business organizations and society.</p>	1,2,3,4,5,6,7,8	Client and Firm visits, in-class assignments/lab, exams
<p>2. Applied Data Analytics</p> <p>Students will be able to analyze business and audit objectives, issues and problems and identify the data necessary for solutions. They will learn to integrate data tools and languages and communicate the answers in pragmatic and understandable terms. Students will learn to be effective in unstructured environments and productive in live business situations.</p>	5,6,7,8	Client and Firm visits, in-class assignments/lab, exams
<p>3. Professional Development</p> <p>Students will be able to communicate clearly and strategically, after considering the relevant audience, situation, and purpose of the communication. Students will demonstrate the ability to work productively with others to accomplish established goals.</p>	6,7,8	Client and Firm visits
<p>4. Research/Life-Long Learning</p> <p>Students will be able to use relevant research databases and academic/professional literature to gain new knowledge and analyze business situations.</p>	1,4,5,6,7,8	Readings, client and Firm visits
<p>5. Ethical Principles and Professional Standards</p> <p>Students will be able to apply ethical principles and professional standards in analyzing situations and making informed decisions.</p>	1,2,3,4,5,6,7,8	Selected class sessions, client and Firm visits

<p>6. Globalization and Diversity</p> <p>Students will be able to demonstrate an international perspective and appreciation for diversity and cultural differences, along with their significance in global business.</p>	1,8	In-class assignments and discussion
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