ACC619: Information and Assurance and Analytics, Fall 2024
School of Accountancy
Shidler College of Business
University of Hawai'i at Mānoa

Course Instructor:

Professor: Jee-Hae Lim, Ph.D. Shidler College Distinguished Professor of Accounting **Lecture (D106):** Tues. 6pm-8:45pm	**Office:** Tower C, Room# 401A **Phone:** (808) 956-8503 **Email:** jeehae@hawaii.edu **Office hours:** Tues. 4:30pm to 5:30pm and other times by appointment

Course Description:
This course is built from the premise that technology has changed the role of the accountant. A heightened awareness of systems, technology, and data analysis is becoming increasingly required of individuals in accounting and finance fields. Specific AIS content in IT audit areas include IT governance, IT risk assessment, IT operations, security, business continuity and change management. The students will learn tools and techniques in data analytics to enhance their depth and understanding of the audit process, risk management and develop knowledge on how accounting information systems work in order to assess the reliability of the information captured and disseminated.

Course Learning Objectives:
By the end of the term, you should be able to do the following at a graduate level:
1. Understand the role and value of data analytic in accounting.
2. Understand the nature and types of analytics in IT audit engagements.
3. Understand key guidance on IT audit and IT governance from the COSO, COBIT, ISACA and PCAOB.
4. Apply analytics tools and techniques and recognize how analytics assist in specific AIS content, including IT governance, IT risk assessment, IT operations, security, business continuity and change management.

Teaching Methods:
- Read assigned textbook chapter and/or articles before lectures
- Attempt assigned problems before lectures and tutorials
- Interactive lectures including discussion of problems
- Computer and external tutorials

Required Textbook: Richardson, V.J., Teeter, R.A., and Terrell, K.L. *Data Analytics for Accounting* (3rd Ed.). McGraw-Hill, (ISBN: 9781266219672).

Recommended Textbook: Gregory, P. H. 2020. *CISA Certified Information Systems Auditor Exam Guide*. (4th Ed.). New York, NY: McGraw Hill, ISBN 9781260458800 1260458806.

Required Software:
- We will use Microsoft Excel, PowerPivot for Excel, PowerQuery for Excel, Microsoft Access, Tableau, and/or Microsoft SQL Server.
- We will also use a variety of free and/or open-source tools such as Weka, Idea, Microsoft OneDrive, Google Documents, and/or Google Sheets.

Other Learning Resources
- COSO (www.coso.org)
- ISACA (www.isaca.org)
- Public Company Accounting Oversight Board (www.pcaob.org)

Supplies: All students are required to have an email account provided by the university and to access **Laulima.** Laulima facilitates the communication in this class (laulima.hawaii.edu). Students should regularly check the Laulima for the coming weeks' material, class discussions, exercises, readings etc. Copies of the slides, readings and exercises for each class will be made available on Laulima.

Prerequisite: ACC418 Auditing or ACC 585 Auditing and Attestation with C- or better, or consent.

Assessment:

Assessment Method	Grade
Quizzes	20%
Assignments: Case/Lab Works	30%
Assigned Reading and Homework	10%
Project & Peer Evaluation	20%
Presentation	10%
Attendance & Participation*	10%
Total	**100%**

Quizzes: Review the assigned chapters for each week and complete the online-based quizzes (e.g., multiple choice, fill-in-the blanks, matching multiple selects, etc) *by 9pm Saturday of that assigned week* in general as described via the detailed course outline. **Four quizzes** will be administered during the semester. *No make-up quizzes* will be offered unless a student misses the quiz because an excused absence has been approved in advance.

Course Assignments: In addition to the required reading and homework(s), students are expected to complete several cases, hands-on assignments, and lab works. *No late work* will be accepted unless your situation or issue has been excused by the instructor in advance.

Project: Students will work in small groups to complete the assigned data analytic project, which is related to IT auditing, IT governance, internal controls, or risk management issues. The project examines data analytics skills, audit planning, visual charting, evidence assessment, as well as professional reports and presentations.

Attendance & Participation: Class participation will consist of *both physical attendance* and *in-class discussions*. All students should prepare answers for the assigned questions and discuss them in class. In the each class session, students are also encouraged to raise AIS related issues in class. Therefore, the participation grade is based on quantity and quality of class involvement, so *more than 1 physical absence (>=4 hrs.)* will affect students' participation grade.

Grading Policy:

Semester Grade	Percentage %
A+	97-100
A	93-96
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	< 60

Please NOTE that the instructor reserves the right to re-distribute the points as needed and/or adjust the semester grade upwards, but do not assume that the instructor will do so.

Academic Integrity and Ethical Behavior: Violations of academic integrity include, but are not limited to, cheating, fabrication, tampering, plagiarism, or facilitating such activities. Failure to meet this expectation will result in failure of the course and possible dismissal from the program. Plagiarism means using another's words, ideas, materials or work without properly acknowledging and documenting the source. Students are responsible for knowing the rules governing the use of another's work or materials and for acknowledging and documenting the source appropriately. All work that candidates ultimately submit in this course must be their own in their own words. If you are in doubt about whether your work is paraphrased or plagiarized, see the UH General and Graduate Information Catalog under "Student Regulations" and the UH Student Conduct Code
(http://studentaffairs.manoa.hawaii.edu/policies/conduct_code/) for specific guidelines related to ethical behavior.

Please NOTE that UH disciplinary proceedings may be instituted against a student charged with conduct that potentially violates both the criminal law and this Student Conduct Code (that is, if both possible violations result from the same factual situation) without regard to the pendency of civil or criminal litigation in court or criminal arrest and prosecution.

If a student is caught committing an act of Academic Dishonesty, as defined in the University Student Conduct Code, he/she will receive a grade of "F" for the course and be referred for disciplinary action as provided for the by the University Student Conduct Code.

Withdrawal/Drop Policy: The student has the responsibility to withdraw from the course. If a student stops attending class and does not drop the course, a grade of "F" will be assigned at the end of the semester.

Class Location in Case of Emergencies: The emergency class site is on the steps down to George Hall out of the Shidler E-Tower.

Statement on Disability—KOKUA PROGRAM: The University of Hawai'i at Mānoa is committed to a policy of non-discrimination and provides equal access to its programs, services, and activities to students with disabilities. If you have a disability and related access needs, please contact the KOKUA program (UH Disabled Student Services Office) at 956-7511, kokua@hawaii.edu, or go to Room 013 in the Queen

Liliʻuokalani Center for Student Services. I will work with you and KOKUA to meet your access needs based on disability documentation.

Counseling Services: If you are in need of assistance with personal, academic or career concerns, the University of Hawaiʻi has services available through UHM Counseling & Student Development Center (CSDC) located at the Queen Liliʻuokalani Center for Student Services Room 312.
Website: http://manoa.hawaii.edu/counseling/
Phone: (808) 956-7927

TITLE IX: The University of Hawaii is committed to providing a learning, working and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking. If you or someone you know is experiencing any of these, the University has staff and resources on your campus to support and assist you. Staff can also direct you to resources that are in the community.

If you wish to remain **ANONYMOUS**, speak with someone **CONFIDENTIALLY**, or would like to receive information and support in a **CONFIDENTIAL** setting, contact the confidential resources available here: http://www.manoa.hawaii.edu/titleix/resources.html#confidential

If you wish to **REPORT** an incident of sex discrimination or gender-based violence including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence or stalking as well as receive information and support, contact:

Dee Uwono
Director and Title IX Coordinator
2500 Campus Road, Hawaiʻi Hall 124
Honolulu, HI 96822
(808) 956-2299
t9uhm@hawaii.edu

As a member of the University faculty, I am **required to immediately report** any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need. For more information regarding sex discrimination and gender-based violence, the University's Title IX resources and the University's Policy, Interim EP 1.204, go to: http://www.manoa.hawaii.edu/titleix/

Class readings and schedule: Below is a TENTATIVE schedule for class discussions and readings. This schedule is subject to change depending upon amount of discussion or inclement weather policies, etc.

Week	Date	Reading	Topic	Details/Lab	Quiz @ 9pm, Sat.	Assignment Due
1	Aug.27		Introduction: A Changing Landscape for Accounting Profession			
2	Sep.3		Frameworks and Standards: COSO and COBIT *Guest Speaker (TBA)*	Additional Reading(s)		
3	Sep.10		IT Governance: IT Risks and Control Implications *Guest Speaker (TBA)*	Additional Reading(s)		
4	Sep.17	Ch.1	Data Analytics for Accounting and Identifying the Question?	Lab Intro.		
5	Sep.24	Ch.2	Mastering the Data in Accounting: How Data are Used and Stored in the Accounting Cycle	Lab 2-4: Summary statistics	Quiz#1 (ch.1-2)	
6	Oct.1		Risk Managements/Risk Assessments *Guest Speaker (TBA)*	Additional Reading(s)		**Assing.#1**
7	Oct.8		Data/Information/Cyber Security *Review: Case*	Additional Reading(s)		
8	Oct.15	Ch.3	Performing the Test Plan and Analyzing the Results	Lab 3-1: Descriptive Analytics: Filter & Reduce Data Lab 3-2: Diagnostic Analytics: Identify Data Clusters Lab 3-3: Perform a Linear Regression Analysis		
9	Oct.22	Ch.4	Communicating Results and Visualizations in Accounting	Lab 4-1: Visualize Declarative Data Lab 4-2: Perform Exploratory Analysis Lab 4-3: Create Dashboards	Quiz#2 (ch.3&4)	
10	Oct.29	Ch.5	The Modern Accounting Environment: -how do we automate data analytic procedure in IT audit?	Lab: Examples of ADA types		**Assing.#2**
11	Nov.5		Holiday: **Election Day**			
12	Nov.12	Ch.5	The Modern Accounting Environment: - what does continuous monitoring look like?	Lab 5-2: Create a Dashboard Based on a Common Data Model	Quiz#3 (ch.5)	
13	Nov.19	Ch.6	Audit Data Analytics	Lab 6-1: Evaluate Trends and Outliers		**Assing.#3**
14	Nov.26	Ch.7-9	Other Areas: Financial Statement-/ Managerial-/TAX- Analytics	Lab 6-2 Diagnostic Analytics Using Benford's Law Lab 6-3 Finding Duplicate Payments	Quiz#4 (ch.6)	
15	Dec.3		Project Week and Presentation			
16	Dec.10		Other Accounting Areas & Current AIS Issues *Project Discussion*	Lab: Additional Examples		**Project Due**