

# UH ACCT 619 Information Assurance & Analysis Syllabus – Spring 2020



## Course Description

Have you wondered how organizations protect and secure sensitive information?

You may have heard about some of the bigger data breaches in 2019 (so far).

Georgia Tech University April 2, 2019 1.3 million faculty, staff, and student records hacked.

Facebook April 2 2019 540 million personal account records hacked.

First American Financial May 25, 2019 885 million bank account records hacked.

Capital One Credit Card July 29, 2019 100 million personal credit card records hacked.

Get (Australian based university club payment app) September 9, 2019 50,000 university students exposed.

ACCT 619 Information Assurance and Analysis Course provides the student with an overview of the Information Technology (IT) Audit profession. The Class performs “real IT Audits” of the University of Hawaii (UH) Information Technology Services (ITS). The course covers topics such as Dealing with Cyber Security, reviewing Governance, Risk, and Controls over highly restricted data, and reviewing Data Center operations. Students will learn by planning, performing, and presenting an actual IT Audit Project to an Audit Committee. The Students will audit current UH data, work with UH Information Technology key leaders, managers, and technical professionals. Students will be mentored and advised by currently working IT Auditors. These professionals practice and do some innovative audits and come from companies such as EY, Deloitte, and First Hawaiian Bank.

## **Course key learning objectives:**

- A. **Plan** an IT Audit, based upon risks. Gaining a robust understanding of the technology process, risks, and control using the American Productivity Quality Center (APQC) framework. Students will need to organize and work as an IT Auditor, modeled after the Big Accounting and Consulting Firm practices (such as: Deloitte, EY, KPMG, and Protiviti).
- B. **Perform** the IT Audit using the Institute of Internal Audit (IIA) Standards and ISACA Framework. Students will interact and learn from experienced IT Auditors on how

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they perform the actual IT Audit work. Students should expect to perform IT Audit risk assessments, test IT controls, analyze test results, conclude on control effectiveness, and propose recommendations if needed.

- C. **Present** the IT Audit Report before an Audit Committee. The Course Audit Committee (Subject to Change) includes: key leaders and executives from the Hawaii professional community. Students will get time to network with IT Audit Professionals and discuss possible career opportunities.
- D. **Preserve** the IT Audit will take Students through some of the important IT Audit documentation practices and quality review standards. Students will learn how to preserve and retain IT Audit evidence. This includes Lessons Learned and Stakeholder Consumer Satisfaction.

## Course Overview

- A. **Work in Teams.** Students will be divided into different IT Audit Teams. Each Team will plan, perform, and present their work to the Course Audit Committee. Students will work with established IT Audit Project Key Stakeholders (UH Technology Leaders) and schedule time to plan and perform the IT Audit work. The Key Contacts have agreed to a limited time (10 to 12 hours over the course time frame) for Student IT Auditors to meet and complete their IT Audit assignments.
- B. **List Current IT Audit Projects.** Subject to availability of Stakeholders and Managers - scheduled for 2020 Spring Semester include.
  1. Perform Strategic Compliance Review for Gramm–Leach–Bliley Act (GLBA) (See APQC 7.3) – Review the Governance, Risks, and Controls over high risk data that the University of Hawaii collects, holds or processes. This usually includes financial information, personally identifiable information, and other confidential data based on risk and compliance to GLBA.
  2. Review Cyber Security Governance, Risk, and Controls using the Cybersecurity Maturity Model Certification (CMMA). This represents an updated approach and new project from the prior National Institute of Standards and Technology (NIST) 800-171. Our class will not perform the NIST 800-171 review. The Stakeholder Leaders requested a higher and newer risk project covering CMMA. The Department of Defense will release the CMMA Model Version 1.0 at the end of January 2020. UH seeks to follow CMMA and

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this IT Audit Project will play a critical role to review and assess whether UH complies to CMMA.

Instructor: Steve Mar  
University of Hawaii Office: Building A 405a  
Office Hours: 4:00PM to 5:30PM Thursdays  
Course: ACC 619 IT Audit  
Class: 6:00PM to 9:00PM Thursday  
Classroom: D101  
Start and End Dates: January 16 to May 14, 2020  
Office Phone: 206-660-4596  
Email: smar2018@hawaii.edu

Office Hours: Please email or call to request an appointment

**Required Text: IT Auditing Using Controls to Protect Information Assets, Chris Davis and Mike Schiller with Kevin Wheeler, McGraw Hill ISBN-13: 978-0-07174238-2**

Grading will be based on a relative scale as scheduled below:

Initial Grading Scale based upon percentage of 1000 possible points
98% - 100% = A+
94% - 97% = A
90%- 93% = A-
87% - 89 % = B+
83% - 86% = B
80% - 82% = B-
77% - 79 % = C+
73% - 76% = C
70% - 72% = C-
69% - 60% = D
59% - below = E

Adjustments may be considered depending upon overall class performance and points distribution.

**(Course Weekly Topics Subject to Change without Notice)**

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Course Topics can change due to the nature of the IT Audit. A new topic may surface because the IT Audit project work discovered a new problem or issue for example, firewall configuration. Thus, we will cover firewall configuration instead of the scheduled topic.

Week #	Date	Audit Step	Class Topics and Learning Objectives	Dates with Advisors	Grading Points
0	Jan 2 2020		1. Send out Pre-Class Survey and Advanced Reading Materials		20
1	Jan 16 2020	A. Plan	1. Organize IT Audit Teams Chapter 1 2. Determine APQC Process to be Audited - Research Topic 3. Cover Risk Assessment and Risk Matrix Chapter 18 4. Work on IT Audit Project 5. Close with Deliverables I Like, I Wish, I Wonder		50
2	Jan 23 2020	A. Plan	1. Guest Speaker - Christopher Hecker 2. Review Week 1 and Discuss Kick-Off Meeting 3. Create IT Audit Program - Part 2 4. Discuss Audit Process – Chapter 2 5. Work on Current Project and Hold Status Meeting with Instructor 6. Introduce Personal IT Audit Project Research 7. Close with Deliverables		25

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Week #	Date	Audit Step	Class Topics and Learning Objectives	Dates with Advisors	Grading Points
3	Jan 30 2020	A. Plan	<ol style="list-style-type: none"> <li>1. Meet with Advisors/ Mentors to hold Planning QR</li> <li>2. Develop Budget &amp; Schedule - Part 2</li> <li>3. Cover APQC 7</li> <li>4. Discuss Conflict Management</li> <li>5. Update IT Audit Program</li> <li>6. Highlight Auditing Data Centers</li> <li>7. Work on Personal IT Audit Project Research</li> <li>8. Close with I Like, I Wish, I Wonder &amp; Deliverables</li> </ol>	Meet with Advisors	25
4	Feb 6 2020	B. Perform	<ol style="list-style-type: none"> <li>1. Discuss NIST in Depth</li> <li>2. Cover Week 3 Feedback</li> <li>3. Obtain and Document Evidence</li> <li>4. Cover GLBA in Depth</li> <li>5. Hold Status Meeting with Instructor</li> <li>6. Work on Personal IT Audit Project</li> <li>7. Close with Deliverables</li> </ol>		35
5	Feb 13 2020	B. Perform	<ol style="list-style-type: none"> <li>1. Tour UH Data Center</li> <li>2. Discuss Cybersecurity Governance Risks, Controls</li> <li>3. Dealing with Hostile Key Stakeholders</li> <li>4. Cover GLBA Case Study</li> <li>5. Work on Personal IT Audit Project</li> <li>6. Close with Deliverables - I Like I Wish I Wonder</li> </ol>		25

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Week #	Date	Audit Step	Class Topics and Learning Objectives	Dates with Advisors	Grading Points
6	Feb 20 2020	B. Perform	<ol style="list-style-type: none"> <li>1. Hold Status Meeting with Instructor</li> <li>2. Review initial Workpaper results - what should you do to make it better?</li> <li>3. Discuss Personal IT Audit Project</li> <li>4. Work on IT Audit Project</li> <li>5. Close with Deliverables</li> </ol>		50
7	Feb 27 2020	B. Perform	<ol style="list-style-type: none"> <li>1. Present Personal IT Audit Research</li> <li>2. Cover Workpaper Repository and Workpaper Template</li> <li>3. Discuss purpose of review notes and validating findings - Budget class time - CIO Status</li> <li>4. Discuss Fieldwork Quality Review Meeting</li> <li>5. Work on IT Audit Project</li> <li>6. Close with I Like, I Wish, I Wonder and Deliverables</li> </ol>		110
8	Mar 5 2020	B. Perform	<ol style="list-style-type: none"> <li>1. Hold CIO Status Report</li> <li>2. Discuss Ethics and Dealing with Difficult Dilemmas in IT Audit</li> <li>3. Invite Advisors/ Mentors - What to send for Fieldwork QR</li> <li>4. Hold Status Meeting with Instructor</li> <li>5. Work on IT Audit Project</li> <li>6. Close with Deliverables</li> </ol>		85

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Week #	Date	Audit Step	Class Topics and Learning Objectives	Dates with Advisors	Grading Points
9	Mar 12 2020	B. Perform	<ol style="list-style-type: none"> <li>1. Meet with Advisor/ Mentor and hold Fieldwork QR</li> <li>2. Discuss Dilemma Exercise - Nordstrom</li> <li>3. Cover Critical Thinking - In Class Exercise</li> <li>4. Discuss Data Analytics for IT Audit</li> <li>5. Work on IT Audit Project</li> <li>6. Close with Deliverables - I Like I Wish I Wonder</li> </ol>	Meet with Advisors	50
	Mar 19 2020 Mar 26 2020		Spring Recess Kuhio Day		
10	Apr 2 2020	C. Present	<ol style="list-style-type: none"> <li>1. Discuss Recommendations - Purpose and how to estimate cost effectiveness</li> <li>2. Discuss Audit Data Analytics &amp; Visualization in Final Report</li> <li>3. Schedule Validation of Findings, Set Final Report Discussion, and Send Report to AC Members</li> <li>4. Establishing Trust and Confidence to allow for good communications and interviewing</li> <li>5. Work on IT Audit Project</li> <li>6. Close with I Like, I Wish, I Wonder and Deliverables</li> </ol>		25

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Week #	Date	Audit Step	Class Topics and Learning Objectives	Dates with Advisors	Grading Points
11	Apr 9 2020	C. Present	<ol style="list-style-type: none"> <li>1. Prepare for your Advisor's Quality Review Meeting</li> <li>2. Review PCAOB Inspection Comments 2017</li> <li>3. Discuss Root Cause Analysis</li> <li>4. Organize and Prepare to Preserve all Workpapers</li> <li>5. Hold Status Meeting with Instructor/ Work on IT Audit Project</li> <li>6. Close with Deliverables</li> </ol>		35
12	Apr 16 2020	C. Present	<ol style="list-style-type: none"> <li>1. Create Final IT Audit Report</li> <li>2. Prepare to Preserve Project Documents</li> <li>4. Schedule Key Stakeholder Validation of Findings Meetings</li> <li>5. Work on IT Audit Project</li> <li>6. Close with Deliverables - I Like I Wish I Wonder</li> </ol>	Meet with Advisors	25
13	Apr 23 2020	D. Preserve	<ol style="list-style-type: none"> <li>1. Validate Findings</li> <li>2. Hold Stand up Meetings on HART Audit</li> <li>3. Discuss Data Analytics Exercise 2</li> <li>4. Work on IT Audit Project</li> <li>5. Close with Deliverables</li> </ol>		25
14	Apr 30 2020	D. Preserve	<ol style="list-style-type: none"> <li>1. Develop your IT Audit Report - Make Your Story Memorable</li> <li>2. Work on Preserving the Audit</li> <li>3. Draft initial Audit Committee Presentation/ Finalize Audit Report with Stakeholders</li> <li>4. Hold Status Meeting with Instructor / Work on Project</li> <li>5. Close with Deliverables</li> </ol>		25



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Week #	Date	Audit Step	Class Topics and Learning Objectives	Dates with Advisors	Grading Points
16	May 7 2020	C. Present	<ol style="list-style-type: none"> <li>1. Perform final Project Quality Review</li> <li>2. Preserve the IT Audit Project -Lessons Learned</li> <li>3. Send out Final IT Audit Report to Audit Committee Members</li> <li>4. Practice Presenting Audit Committee Report</li> <li>5. Close with I Like, I Wish, I Wonder and Deliverables</li> </ol>		75
17	May 14 2020		<ol style="list-style-type: none"> <li>1. Give Final IT Audit Presentation</li> <li>2. Receive Audit Committee Feedback and Evaluation</li> <li>3. Debrief on Audit Committee Experience</li> <li>4. Network with Audit Committee Members</li> <li>5. Finals Week - Close with I Like, I Wish, I Wonder</li> </ol>		315
				Total Points	1000



American Productivity and Quality Center (APQC) Framework for Information Technology



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## Shidler College of Business Policies –

**Alternate Meeting Place:** In the event of any disturbance requiring the evacuation of Shidler College, you are to meet the instructor in the grassy area on the south (makai) side of George Hall. At that time, further instructions will be given (if an exam is in progress, you will be notified of an alternate room to complete the exam).

**Students with Disabilities:** Any student who has a documented disability and requires accommodations is strongly encouraged to contact me or the KOKUA Program located in Room 13 on the first floor of the Student Services Center (also contact Ann Ito, KOKUA Program Director at 956-7511).

**Academic Honesty:** Students are expected to behave with integrity in all academic endeavors. Cheating, plagiarism, as well as any other form of academic dishonesty, will not be tolerated. All incidents will be handled in accordance with the UH *Student Code of Conduct*. The UH Student Code of Conduct, is available at:  
[http://www.studentaffairs.manoa.hawaii.edu/policies/conduct\\_code/](http://www.studentaffairs.manoa.hawaii.edu/policies/conduct_code/).

Please become very familiar with the [University Student Conduct Code](#) so you can make conscience and informed choices about your behavior. Some relevant portions of the code are included below for your convenience.

Acts of dishonesty, types of behavior that conflict with the community standards that the UH values and expects of students, include but are not limited to the following:

- a. **cheating, plagiarism, and other forms of academic dishonesty,**
- b. **furnishing false information to any UH official, faculty member, or office,**
- c. **forgery, alteration, or misuse of any UH document, record, or form of identification.**

The term "cheating" includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (3) the acquisition, without permission, of tests or other academic material belonging to a member of the UH faculty, staff or student (4) engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.

The term "plagiarism" includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

In addition to the above, the instructor specifically prohibits the following behaviors, and includes them within the definition of academic dishonesty: (1) providing another student with any form of

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direct or indirect, unauthorized assistance on any assignment, quiz, test or exam; and (2) copying, or recording in any manner, test or exam questions or answers.

## **Please NOTE:**

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](#), they will receive a grade of “F” for the course and be referred for disciplinary action as provided for by the [University Student Conduct Code](#).

**Classroom Behavior:** Both students and faculty have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to behavioral standards may be subject to discipline. Faculty must treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which Students express opinions.

## **Required information to be posted in University of Hawaii Class Syllabus -**

**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/](http://studentaffairs.manoa.hawaii.edu/policies/conduct_code/)) for specific guidelines related to ethical behavior.

**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](mailto:kokua@hawaii.edu), or go to Room 013 in the Queen Lili'uokalani 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 Hawai'i has services available through UHM Counseling & Student

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Development Center (CSDC) located at the Queen Lili'uokalani 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#, Hawai'i 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/>