REGIS UNIVERSITY

COLLEGE OF COMPUTER & INFORMATION SCIENCES

Syllabus

Course Title: IT Audit and Risk Management
Course Number: CIT 466

Course Description:

Investigates the principles of information systems audit, IT audit tools, audit procedures to help in detection and prevention of security breaches and fraud. Examines the solutions that can be used to prevent information loss or costly business interruptions, the role of information technology governance in business organizations, reporting requirements, and industry standards for IT Governance.

Prerequisite Courses:

Prerequisite(s): CIT 331.

Course Overview

The goal of this course is to investigate the principles of information system audit and explains the role of information technology governance in business organizations. IT audit process, risk assessment and IT Governance, Frameworks, Standards, and Regulations are introduced and discussed. The students will learn the life cycle of auditing different IT systems including the operation system, database, computer network etc. The students will have the opportunity to conduct risk assessments, create audit program, test controls and analyze test results for concluding audit reports. The course will also explore how to use automated audit tool ACL for data analysis.

Key concepts to be covered in this course include:

- The IT audit process
- Risk assessment and IT Governance,
- The Audit life cycle
- IT Audit Standards and Regulations
- The use of audit tools for data analysis

Course Outcomes:

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

- Explain the role of IT Audit function within an organization

- Explain the IT audit process and the tasks within the IT audit area
- Explain the IT audit Techniques and steps of how to perform an IT audit
- Understand risk management process and control practices in an audit context
- Identify and analyze controls within the IT security framework
- Explore how to audit IT systems.
- Explain frameworks, standards and regulations.

Course Materials:

Required Texts:

Davis, C., Schiller, M., & Wheeler, K. (2011). *IT Auditing Using Controls to Protect Information Assets* (2nd ed.). New York, NY: McGraw-Hill. ISBN 0-07-174238-2, 978-0-07-174238-2.

American Psychological Association. (2010). *Publication Manual of the American Psychological Association (6th ed.).* Washington, DC: American Psychological Association. ISBN 1433805618, 978-1433805615. Companion website: http://www.apastyle.org.

Required Resources:

ACL - software

Pre-Assignment:

1. Introduction and Reading

Online Format: Sign on to D2L (Home Page) and become familiar with the course navigation of the Web Curriculum. Read chapter 1 from the textbook,

Classroom-based Format: Read chapter 1 from the textbook

2**.** Essay

From Bloomberg Businessweek 2014: " In the days prior to Thanksgiving 2013, someone installed malware in Target's (TGT) security and payments system designed to steal every credit card used at the company's 1,797 U.S. stores. At the critical moment—when the Christmas gifts had been scanned and bagged and the cashier asked for a swipe—the malware would step in, capture the shopper's credit card number, and store it on a Target server commandeered by the hackers."

Riley, Michael. "Missed Alarms and 40 Million Stolen Credit Card Numbers: How Target Blew It" Bloomberg Businessweek, March 17, 2014. Web. May 18, 2015

Hacking happens all the time and everywhere. Businesses lose billions of dollars due to hacking. Write a short essay, 2 to 3 double-spaced pages, which addresses the question:

How can an organization be prepared to address the hacking issue?

Keep in mind that you are writing a thesis-support essay that will be based on your own conviction. Begin with an introduction that states the issue/problem and your position on this issue, a body that supports and argues for your position, with appropriate citations as necessary, and a conclusion. Note: there is no single right answer to this question.

Pre-Assignment Due Dates:

Classroom-based Format: This assignment is due the first night of class.

Online Format: The instructor will specify the due date for this assignment.

Course Assignments and Activities:

	Topics	Readings	Activities Assignments and Associated Points
1	Internal Audit and IT Audit Function	Text : Chapter 1	Class Discussion: (12.5pts) Written Assignment: • Pre Assignment (50 pts) • Essay (100 pts) • ACL data analysis (50 pts)
2	IT Governance, Frameworks, Standards, and Regulations	Text: Chapters 16 & 17.	Class Discussion: (12.5 pts) Written Assignment: • Capacity Maturity Model (100 pts) • ACL data analysis (50 pts)
3	Risk Management and Audit Process	Text: Chapters 2 & 18	Class Discussion: (12.5 pts) Written Assignment: • Risk Assessment (100 pts) • ACL data analysis (50 pts)
4	Audit Entry-Level Controls and Applications	Text: Chapters 3 &13	Class Discussion: (12.5 pts) Written Assignment: • Audit program (100 pts) • ACL data analysis (50 pts)
5	Audit OS	Text: Chapters 6 & 7	Class Discussion: (12.5 pts) Written Assignment: • ACL data analysis (50 pts)
6	Audit DB, Data Centers and disaster recovery	Text : Chapters 4 & 9	Class Discussion: (12.5 pts) Written Assignment: • ACL data analysis (50 pts)
7	Audit Networks security	Text : Chapters 5, 8 & 12	Class Discussion: (12.5 pts)

8	Audit Projects	Text: Chapter 15	Class Discussion: (12.5 pts) Written Assignment: • Report drafting and issuance (150 pts)
			Maximum Points Possible: 1000

Course Policies and Procedures:

CC&IS Grading Scale

Letter Grade	Percentage	Grade Point
A	93 to 100	4.00
A–	90 to less than 93	3.67
B+	87 to less than 90	3.33
B	83 to less than 87	3.00
B–	80 to less than 83	2.67
C+	77 to less than 80	2.33
C	73 to less than 77	2.00
C–	70 to less than 73	1.67
D+	67 to less than 70	1.33
D	63 to less than 67	1.00
D-	60 to less than 63	.67
F	Less than 60	0

Additional information about grading can be found in the latest edition of the University Catalog, available at http://www.regis.edu/Academics/Course%20Catalog.aspx.

CC&IS Policies and Procedures

Each of the following CC&IS Policies & Procedures is incorporated here by reference. Students are expected to review this information each term, and agree to the policies and procedures as identified here and specified in the latest edition of the University Catalog, available at http://www.regis.edu/Academics/Course%20Catalog.aspx or at the link provided.

- The CC&IS Academic Integrity Policy.
- The Student Honor Code and Student Standards of Conduct.
- Incomplete Grade Policy, Pass / No Pass Grades, Grade Reports.
- The Information Privacy policy and FERPA. For more information regarding FERPA, visit the U.S. Department of Education.
- The HIPPA policies for protected health information. The complete Regis University HIPAA Privacy & Security policy can be found here: http://www.regis.edu/About-Regis-University/University-Offices-and-Services/Auxiliary-Business/HIPAA.aspx.

- The Human Subjects Institutional Review Board (IRB) procedures. More information about the IRB and its processes can be found here: http://regis.edu/Academics/Academic-Grants/Proposals/Regis-Information/IRB.aspx.

The CC&IS Policies & Procedures Syllabus Addendum summarizes additional important policies including, Diversity, Equal Access, Disability Services, and Attendance & Participation that apply to every course offered by the College of Computer & Information Sciences at Regis University. A copy of the CC&IS Policies & Procedures Syllabus Addendum can be found here: https://in2.regis.edu/sites/ccis/policies/Repository/CCIS%20Syllabus%20Addendum.docx.