Dr. Samar El Sayad (Course Leader)
Dr. Zayyad Abdul-Baki

Course Specification 2020 -2021

Department of
Accounting
SINCE 2000

Course Title:	**DIGITAL AUDITING**
Course Code:	**ACC445**
Program:	**BACHELOR OF SCIENCE IN ACCOUNTING**
Department:	**ACCOUNTING**
College:	**COLLEGE OF BUSINESS ADMINISTRATION**
Institution:	**PRINCE SULTAN UNIVERSITY**

National Accreditation

International Accreditation

Table of Contents

A. Course Identification

1. Credit hours:	3

2. Course type

a.	University ☐	College ☐	Department **X**	Others ☐
b.	Required **X**	Elective ☐		

3. Level/year at which this course is offered:	Year 4 (Semester 2)

4. Pre-requisites for this course (if any)**:**
- **COMPUTER APPLICATIONS FOR BUSINESS (CS 202)**
- **AUDITING & ASSURANCE (ACC348)**

5. Co-requisites for this course (if any)**: None**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	X	70%
2	**Blended**		
3	**E-learning**	X	30%
4	**Distance learning**		
5	**Other**		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	39
2	**Laboratory/Studio**	-
3	**Tutorial**	-
4	**Others** (Major Exam, presentation, etc.)	6
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course examines audit function in a computerized environment. It focuses on the guidelines for performing IT audit and building automated audit function. Topics include the automation of audit function and how robotics process automation can be used in an audit. The course also covers the risks associated with the dynamic area of IT auditing, auditing IT governance controls, security concerns, and Computer-Assisted Audit Tools and Techniques (CAATTs).

2. Course Main Objective

The main of purpose of this course is to develop thorough understanding of how modern audits are conducted in today's IT-driven business environment. Students will gain valuable insights about the latest IT aspects of auditing with up-to-date coverage of today's techniques and tools for risk assessment, fraud detection, and internal control assessment. Also, the course enables students to gain AICPA Robotic Process Automation Fundamentals for Accounting and Finance Professionals Certificate.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding:**	
1.1	Understand the IT environment and the role of the auditor.	PLO 1.1
1.2	Identify the key principles related to auditing information technology processes and related controls.	PLO 1.1
2	**Skills:**	
2.1	Appraise an understanding of the IT audit process i.e., risk assessment, planning, standards, guidelines and best practices.	PLO 2.1
2.2	Ability to automate the audit function.	PLO 2.1
3	**Values:**	
3.1	Apprehend the relevant professional ethics and legal issues when dealing with IT Audit.	PLO 3.1
3.2	Demonstrate effective written communication skills	PLO 5.2

C. Course Content

No	List of Topics	Contact hours
1	**Auditing in a Digital Environment** • An Introduction to IT Auditing • Data Ecosystem and its Impact on Auditing • An Introduction to Audit Automation • Impact of Artificial Intelligence and Machine Learning on Auditing	3
2	**Audit Automation** • Process Mining • Visualization Techniques for Auditing • Fraud Detection through Analytics • Digital Audit Capabilities	3
3	**Robotic Process Automation (RPA)** • What RPA is • RPA applications • Risks and challenges to implementing RPA. • How RPA might affect an audit • Future of RPA.	9
4	**IT Governance Controls & Auditing** • Governance of IT • Corporate IT Function • Outsourcing Vs. In-house the IT Function	3
5	**Operating Systems & Networks Auditing** • Operating Systems Auditing • Networks Auditing • Electronic Data Interchange & its Impact on Auditing	4
6	**Database Systems Auditing** • An Introduction to Databases • Types & Key Elements • Auditing Data Management Systems	4

7	**Auditing the Systems Development Life Cycle** • Systems Development Life Cycle (SDLC) • Phases of SDLC • SDLC & its Impact on Auditing	3
8	**Computer-Assisted Audit Tools & Techniques (CAATTs)** • IT Application Controls • Testing IT Application Controls • CAATTs for Controls Testing	3
9	**ERP system and its Implications on Auditing** • An Overview of ERP Systems • Features and Structure of ERP Systems • Risks of Implementing ERP Systems • ERP & its Impact on Auditing	4
10	**Business Ethics in a Digital World**	1
12	**Revision**	2
	Total	39

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge**		
1.1	Understand the IT environment and the role of the auditor.	A combination of lectures, discussion and case studies	Examinations
1.2	Identify the key principles related to auditing information technology processes and related controls. . . .	A combination of lectures, discussion and case studies	Examinations, Assignments
2.0	**Skills**		
2.1	Appraise an understanding of the IT audit process i.e., risk assessment, planning, standards, guidelines and best practices	A combination of lectures and case studies	Examinations, Assignments
2.2	Ability to automate the audit function.	A combination of lectures and case studies	Examinations, Assignments
3.0	**Competence**		
3.1	Apprehend the relevant professional ethics and legal issues when dealing with IT Audit.	Lectures	Examinations
3.2	Demonstrate effective written communication skills	In-class activities, discussion	Assignment

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	**Assignments**	Continuous	5 %
2	**Major Exam I**	7	20%
3	**Major Exam II**	12	20%
4	**AICPA Robotic Process Automation Fundamentals for Accounting and Finance Professionals Certificate**	14	15%
5	**Final Exam**	16	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

Instructors allocate six office hours per week for students' consultation (4 office hours and 2 academic advising hours). In addition, students are welcomed anytime by appointment if they cannot come during the office hours.

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Information Technology Auditing, 4th edition, by James A. Hall
Essential References Materials	AICPA Robotic Process Automation Fundamentals for Accounting and Finance Professionals Certificate Material
Electronic Materials	Moodle (LMS), E-learning resources from AICPA
Other Learning Materials	Artificial Intelligence for Audit, Forensic Accounting, and Valuation: A Strategic Perspective, 1st Edition, by Al Naqvi

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	● Classroom with 25 seating capacity
Technology Resources (AV, data show, Smart Board, software, etc.)	● Smartboard (Overhead projector and Screen) ● Whiteboard

	● LMS, Google Meet ● Microsoft Office ● ERP system. ● Internet Connection
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Laptop

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Course leader Program leaders	**Direct assessment** – Classroom observation **Indirect assessment** - Course Evaluation Survey
Extent of achievement of course learning outcomes	Faculty	**Direct assessment** – Academic assessment (AOL) Rubrics assessment **Indirect assessment** Course Evaluation Survey
Quality of learning resources	Student	**Indirect assessment** Course Evaluation Survey
Action Plan continuity (Closing the loop)	AOL Committee and course leaders	AOL Report

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Department of Accounting Council
Reference No.	Term 202, Meeting No. 6
Date	May 6, 2021