

Republic of Yemen

Ministry of Higher Education & Scientific Research

Council of Academic Accreditation & Quality Assurance of Higher Education(CAQA)

21 September University for Medical and Applied Sciences



Faculty of Engineering and Computer
Department of Information Technology
Program of Information Technology
Course Specification of
Information Security and Audit
Course Code. (07.01. 718)

2024



T4: This Template is Developed and Approved by CAQA-Yemen, 2023

Prepared by:
Dr. Malek Algabri

Reviewed by:
Dr. ----

Head of the Department:

Quality Unit:

Dean

I. General Information:

1.	Course Title:	Information Security and Audit				
2.	Course Code:	07.01. 718				
3.	Credit Hours:	Credit Hours	Theory Contact Hours		Practical Contact Hours	
			Lecture	Tutorial/ Seminar	Lab	Clinical
		3	2	--	2	--
4.	Level/ Semester at which this Course is offered:	Level 4/ Semester 1				
5.	Pre –Requisite (if any):					
6.	Co –Requisite (if any):	non				
7.	Program (s) in which the Course is Offered:	Bachelor of Medical Information Technology				
8.	Language of Teaching the Course:	English				
9.	Location of Teaching the Course:	Faculty of Medical Technology				
10.	Prepared by:	Dr. Malek Algabri				
11	Date and Number of Approval by Council:					

II. Course Description:

This course focuses on understanding basic entrepreneurial concepts, the entrepreneurial mindset, and developing entrepreneurial skills through hands-on learning. The course emphasizes the entrepreneurial process and the application of this process to a broad range of business contexts. The course also addresses creativity, securing resources, team building, communication, and leadership.

III. Course Intended Learning Outcomes (CILOs) : Upon successful completion of the course, students will be able to:		Referenced PILOs		
A. Knowledge and Understanding:		I, P or M/A		
a1	Using a framework to identify and refine entrepreneurial ideas and understand how those ideas relate to core elements of a business.		A1	Demonstrate an understanding of appropriate models, theories, mathematical foundations, and techniques related to Health Information Technology discipline. .
a2	Identify and refine entrepreneurial ideas and apply them to core elements of a business.		A4	Demonstrate a sound understanding the computing concept related to analysis, design, implementation, and evaluation of Health information system.
			A3	
B. Intellectual Skills:				
b1	identify types of services provided by entrepreneurs and small businesses		B2	Analyze the impacts of computing on Health objectives and customer needs, and consider them during the analytical processing, selection, integration, configuration and administration of information systems
b2	develop an understanding of the entrepreneurial process and apply use of it to solve consumer, business, and social problems		B4	Evaluate IT based solution to meet a given set of Health requirements in the context of Health Information Technology discipline
			B3	
C. Professional and Practical Skills:				
c1	identify, develop, and evaluate entrepreneurial opportunities [Critical Thinking];		C1	Employ effectively the concepts, principles of computational tools, techniques used for the construction and documentation of Health Information of varying complexity.

c2	apply a business model and lean startup method to test market a best idea		C3	Use systematic approaches to select, develop, apply integrates, and administrate secure computing technologies to accomplish user and Health goals.
			C3	
D. Transferable Skills:				
d1	demonstrate effective communication and negotiation skills.		D2	Commit to professional ethics, responsibilities, and norms of professional IT practices
d2	demonstrate effective communication strategies used in business		D3	Communicate effectively in writing and orally in a variety of professional contexts.
			D3	
I= Introduced, P=Practiced or M/A= Mastered/Advanced				

(A) Alignment of Course Intended Learning Outcomes (Knowledge and Understanding) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
a1	Using a framework to identify and refine entrepreneurial ideas and understand how those ideas relate to core elements of a business.	<ul style="list-style-type: none"> ▪ Lectures, Interactive class ▪ discussions, Tutorials. 	<ul style="list-style-type: none"> ▪ Written exams, assignment ▪ work, quizzes, submission of ▪ reports
a2	Identify and refine entrepreneurial ideas and apply them to core elements of a business.		
a3		▪	▪
(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:			

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
b1	identify types of services provided by entrepreneurs and small businesses	<ul style="list-style-type: none"> ▪ Lectures, Tutorial, Interactive class ▪ discussions, and group work, ▪ presentation 	<ul style="list-style-type: none"> ▪ Written exams, Project, Case ▪ studies and assignment work.
b2	develop an understanding of the entrepreneurial process and apply use of it to solve consumer, business, and social problems		
	...	▪	▪
(C) Alignment of Course Intended Learning Outcomes (Professional and Practical Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
c1	identify, develop, and evaluate entrepreneurial opportunities [Critical Thinking];	<ul style="list-style-type: none"> ▪ Short lectures, case study, Laboratory ▪ experiments, Project, and group work, ▪ Field training, Drawing sessions 	<ul style="list-style-type: none"> ▪ Written exams, quizzes, Practical ▪ exam assignment and report ▪ submission
c2	apply a business model and lean startup method to test market a best idea		
	...	▪	▪
		▪	▪
(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
d1	demonstrate effective communication and negotiation skills.	<ul style="list-style-type: none"> ▪ Group work, Self-study, Interactive ▪ class discussions, Tutorials, Seminar/ ▪ project/presentation, Laboratory ▪ experiments, Project, and Art Gallery 	<ul style="list-style-type: none"> ▪ Project presentation, Laboratory ▪ exam, Report/Project
d2	demonstrate effective communication strategies used in business		
	...	▪	▪

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Audit	<ul style="list-style-type: none"> - Legacy 1 - Regulation, controls, and audits - Audit and digital transformation 	1	2	a1,a2
2	Information system	<ul style="list-style-type: none"> - Information - Information systems - IT impact on information systems 	1	2	a1,a2
3	Information system audit	<ul style="list-style-type: none"> - Challenges - Different types of audits - Digitalization 	1	2	a1,a2,b1
4	Legal risks	<ul style="list-style-type: none"> - Sui generis risks - Identification and prevention - International context and innovation 	1	2	a1,a2,b2,d1
5	Operational risks	<ul style="list-style-type: none"> - Processes - Data - Digital impact 	1	2	a1,a2,b1,b2,d1,d2
6	Mid team	<ul style="list-style-type: none"> - Mid team exam 	1	2	b1,b2,c1
7	IT processes	<ul style="list-style-type: none"> - Administrative processes - Service management - Project management 	1	2	b1,b2,c1
8	Human uncertainties	<ul style="list-style-type: none"> - Unintentional acts - Intentional acts - Security - Forensic 	1	2	b1,b2,c1,d1,d2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
9	IT risks	<ul style="list-style-type: none"> - Geographical coverage - Data mobility - Media mobility - Are it induced risks new? 	1	2	b1,b2,c1 ,d1,d2
10	Confidence	<ul style="list-style-type: none"> - Short-term confidence - Medium-term confidence - Long-term confidence 	1	2	b1,b2,c1 ,d1,d2
11	Risks management	<ul style="list-style-type: none"> - Enterprise risks - Operational risks - Technical risks 	1	2	a1,a2, b1,b2,c1 ,d1,d2
12	Information system audit strategy	<ul style="list-style-type: none"> - Back to basics on audit strategy - Digitalization and audit strategy - Information system risks due to its complexity 	1	2	a1,a2, b1,b2,c1 ,d1,d2
13	Performing audits	<ul style="list-style-type: none"> - Back to basics on audit planning - Information system audit planning - Achieving reasonable assurance 	1	2	a1,c1,c2 , b1,b2,c1 ,d1,d2
14	Sleeted topic Audit Planning and Preparation	<ul style="list-style-type: none"> - Sleeted topic Audit Planning and Preparation 	1	2	a1,c1,c2 , b1,b2,c1 ,d1,d2
15	Sleeted topic Audit Techniques and Collecting Evidence	<ul style="list-style-type: none"> - Sleeted topic Audit Techniques and Collecting Evidence 	1	2	a1,c1,c2 , b1,b2,c1 ,d1,d2
16	Final Theoretical Exam	<ul style="list-style-type: none"> - Final Exam 	1	2	a1,a2, a1,c1,c2 , b1,b2,c1

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
					,d1,d2
Number of Weeks /and Units Per Semester			16	32	

B. Practical Aspect (Lab/Clinical) (if any):

No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	1- Introduction - Introduction to Information System Audit - Understanding the Audit Report Format	1	2	a1,a2,b1
2	- Auditing Information System Policy - Auditing Information System Policy - Auditing controls related to Applications	1	2	a1,a2,b1,b2
3	3- Auditing controls related to Database - Introduction - Auditing controls related to Database - Auditing Database Ownership - Auditing Database Categorization - Auditing Operating Systems - Auditing Backup Location - Auditing PIM Software - Auditing Secured Configuration Documentation - Auditing Password Encryption - Auditing Encryption Algorithm - Auditing Backup Restoration Test	2	4	a1,a2,b1,b2,c1
4	4- Auditing controls related to Datacenter - Auditing controls related to Datacenter - Auditing SLA for Cloud Storage - Auditing Datacenter Audit & Compliance Reports	1	2	a1,a2,b1,b2,c1,c2
5	5- Auditing controls related to Network Devices - Auditing controls related to Network Devices - Auditing Network Devices Ownership - Auditing Network Devices Configuration Review	1	2	a1,a2,b1,b2,c1,c2
6	Auditing controls related to Endpoint Devices - Auditing controls related to Endpoint Devices - Auditing Device Ownership - Auditing Operating Systems - Auditing Anti-Virus Software	1	2	a1,a2,b1,b2,c1,c2

No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
7	Mid team exam	1	2	a1,a2,b1,b2,c1,c2
8	8 - Auditing controls related to Emails - Auditing controls related to Emails - Auditing Sender Policy Framework (SPF) - Auditing DMARC - Auditing Email Attachment Scanning - Auditing Email Restrictions	1	2	a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
9	9 - Auditing controls related to Outsourcing - Auditing controls related to Outsourcing Activities - Auditing SLA - Auditing audit and compliance reports of service providers	1	2	a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
10	10 - Auditing controls related to Desktops - Auditing controls related to Desktops - Auditing Operating Systems - Auditing OS Licensed Versions - Auditing Windows Activation - Auditing Password Settings for Windows login - Auditing Administration Rights - Auditing Time Synchronization - Auditing Change Date and Time Restrictions - Auditing Screen Savers - Auditing Patch Updation - Auditing Offer to Save Passwords - Auditing Updated Browsers - Auditing Installed Softwares - Auditing Application Installation Restrictions - Auditing USB Restrictions - Auditing Google Drive Restrictions - Auditing VBA/Macro Restrictions - Auditing Powershell Restrictions - Auditing Windows Run Restrictions - Auditing User Training	3	6	a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
11	Final team exam	1	2	a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
Number of Weeks /and Units Per Semester		14		

VII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	Assignment 1: Ideation Assignment	1-10	5	a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
2	Assignment 2: Ideation Presentation	2-12	5	a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
3	Assignment 3: Class Attendance and Participation	Every unit	5	a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
4	In-Class Assignments, Activities & Homework	2-12	5	a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
Total				

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	1-12	20		a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
2	Mid-Term Theoretical Exam	7-8	20		a1,a2,b1,b2,d1,d2
3	- Venture - Presentations - Final Venture Proposal	14	20		a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
4	Final Theoretical Exam	16	40		a1,a2, a1,c1,c2, b1,b2,c1,d1,d2
Total			100		

IX. Learning Resources:

- *Written in the following order:* Author, Year of publication, Title, Edition, Place of publication, Publisher.

1- Required Textbook(s) (maximum two):

- 1- Philippe Peret, Information System Audit: How to Control the Digital Disruption, Series: Security, Audit and Leadership Series , ISBN: 2022001328 ,CRC Press, Year: 2022
- 2- Rajkumar Banoth, Gugulothu Narsimha, Aruna Kranthi Godishala, A Comprehensive Guide to Information Security Management and Audit ,CRC Press, Year: 2022 ,ISBN: 1032344431

2- Essential References:

- 1- Robert E. Davis, Auditing Information and Cyber Security Governance: A Controls-Based Approach, Series: Internal Audit and IT Audit ,CRC Press, Year: 2021 ,ISBN: 0367568500
- 2- Gerardus Blokdyk, Information Security Audit A Complete Guide - 2020 Edition

3- Electronic Materials and Web Sites etc.:

Websites:

- 1- www.c3i.osd.mil/org/cio/i3/AWG_Digital_Library/index.htm
- 2- www.isaca.org
- 3- www.bsi.org
- 4- www.isaca.org/gir
- 5- www.isaca.org/cobit.htm

X. Course Policies: (Based on the Uniform Students' By law (2007))

1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating:



	<p>Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.</p>
6	<p>Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.</p>
7	<p>Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.</p>

Faculty of Medical Technology
Department of Medical Information Technology
Program of Medical Information Technology
Course Specification of
Information Security and Audit
Course Code. (07.01. 718)

I. Information about Faculty Member Responsible for the Course:							
Name of Faculty Member:		Office Hours					
Location & Telephone No.:	---						
E-mail:	--@--.	SAT	SUN	MON	TUE	WED	THU

202../202..

II. Course Identification and General Information:				
Course Title:	Information Security and Audit			
Course Code:	07.01. 718			
Credit Hours:	Credit Hours	Theory Contact Hours		Practical Contact Hours

			Lecture	Tutorial/S eminar	Lab	Clinical
		3	2	--	2	-
	Level/ Semester at which this Course is offered:	Level 4/ Semester 1				
	Pre –Requisite (if any):					
	Co –Requisite (if any):	non				
	Program (s) in which the Course is Offered:	Bachelor of Medical Information Technology				
	Language of Teaching the Course:	English				
	Location of Teaching the Course:	Faculty of Medical Technology				
	Prepared by:	Dr. Malek Algabri				
11	Date and Number of Approval by Council:					

III. Course Description:

This course focuses on understanding basic entrepreneurial concepts, the entrepreneurial mindset, and developing entrepreneurial skills through hands-on learning. The course emphasizes the entrepreneurial process and the application of this process to a broad range of business contexts. The course also addresses creativity, securing resources, team building, communication, and leadership.

IV. Course Intended Learning Outcomes (CILOs) :

Upon successful completion of the Course, student will be able to:

A. Knowledge and Understanding:

- | | |
|----|--|
| a1 | Using a framework to identify and refine entrepreneurial ideas and understand how those ideas relate to core elements of a business. |
|----|--|



a2	Identify and refine entrepreneurial ideas and apply them to core elements of a business.
	B. Intellectual Skills:
b1	identify types of services provided by entrepreneurs and small businesses
b2	develop an understanding of the entrepreneurial process and apply use of it to solve consumer, business, and social problems
	C. Professional and Practical Skills:
c1	identify, develop, and evaluate entrepreneurial opportunities [Critical Thinking];
c2	apply a business model and lean startup method to test market a best idea
	D. Transferable Skills:
d1	demonstrate effective communication and negotiation skills.
d2	demonstrate effective communication strategies used in business
I= Intr od uc ed, P= Pra cti ce d or M/ A= Ma ste red /A dv an	

ce
d

V. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	Audit	<ul style="list-style-type: none"> - Legacy 1 - Regulation, controls, and audits - Audit and digital transformation 	1	2
2	Information system	<ul style="list-style-type: none"> - Information - Information systems - IT impact on information systems 	1	2
3	Information system audit	<ul style="list-style-type: none"> - Challenges - Different types of audits - Digitalization 	1	2
4	Legal risks	<ul style="list-style-type: none"> - Sui generis risks - Identification and prevention - International context and innovation 	1	2
5	Operational risks	<ul style="list-style-type: none"> - Processes - Data - Digital impact 	1	2
6	Mid team	Mid team exam	1	2
7	IT processes	<ul style="list-style-type: none"> - Administrative processes - Service management - Project management 	1	2
8	Human uncertainties	<ul style="list-style-type: none"> - Unintentional acts - Intentional acts - Security - Forensic 	1	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
9	IT risks	<ul style="list-style-type: none"> - Geographical coverage - Data mobility - Media mobility - Are it induced risks new? 	1	2
10	Confidence	<ul style="list-style-type: none"> - Short-term confidence - Medium-term confidence Long-term confidence 	1	2
11	Risks management	<ul style="list-style-type: none"> - Enterprise risks - Operational risks - Technical risks 	1	2
12	Information system audit strategy	<ul style="list-style-type: none"> - Back to basics on audit strategy - Digitalization and audit strategy <p>Information system risks due to its complexity</p>	1	2
13	Performing audits	<ul style="list-style-type: none"> - Back to basics on audit planning <p>Information system audit planning Achieving reasonable assurance</p>	1	2
14	Sleeted topic Audit Planning and Preparation	Sleeted topic Audit Planning and Preparation	1	2
15	Sleeted topic Audit Techniques and Collecting Evidence	Sleeted topic Audit Techniques and Collecting Evidence	1	2
16	Final Theoretical Exam	Final Exam	1	2
Number of Weeks /and Units Per Semester			16	32
No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	Audit	<ul style="list-style-type: none"> - Legacy 1 - Regulation, controls, and audits 	1	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		- Audit and digital transformation		
2	Information system	- Information - Information systems - IT impact on information systems	1	2
3	Information system audit	- Challenges - Different types of audits - Digitalization	1	2
4	Legal risks	- Sui generis risks - Identification and prevention - International context and innovation	1	2
5	Operational risks	- Processes - Data - Digital impact	1	2
6	Mid team	- Mid team exam	1	2
7	IT processes	- Administrative processes - Service management - Project management	1	2
8	Human uncertainties	- Unintentional acts - Intentional acts - Security - Forensic	1	2
9	IT risks	- Geographical coverage - Data mobility - Media mobility - Are it induced risks new?	1	2
10	Confidence	- Short-term confidence - Medium-term confidence Long-term confidence	1	2
11	Risks management	- Enterprise risks	1	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		- Operational risks - Technical risks		
12	Information system audit strategy	- Back to basics on audit strategy - Digitalization and audit strategy - Information system risks due to its complexity	1	2
13	Performing audits	- Back to basics on audit planning - Information system audit planning Achieving reasonable assurance	1	2
14	Sleeted topic Audit Planning and Preparation	- Sleeted topic Audit Planning and Preparation	1	2
15	Sleeted topic Audit Techniques and Collecting Evidence	- Sleeted topic Audit Techniques and Collecting Evidence	1	2
16	Final Theoretical Exam	- Final Exam	1	2
Number of Weeks /and Units Per Semester			16	32

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
1	1- Introduction - Introduction to Information System Audit - Understanding the Audit Report Format	1	2
2	4- Auditing Information System Policy - Auditing Information System Policy - Auditing controls related to Applications	1	2
3	3- Auditing controls related to Database - Introduction - Auditing controls related to Database - Auditing Database Ownership - Auditing Database Categorization - Auditing Operating Systems - Auditing Backup Location	2	4

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
	<ul style="list-style-type: none"> - Auditing PIM Software - Auditing Secured Configuration Documentation - Auditing Password Encryption - Auditing Encryption Algorithm - Auditing Backup Restoration Test 		
4	<ul style="list-style-type: none"> 4- Auditing controls related to Datacenter - Auditing controls related to Datacenter - Auditing SLA for Cloud Storage - Auditing Datacenter Audit & Compliance Reports 	1	2
5	<ul style="list-style-type: none"> 5- Auditing controls related to Network Devices - Auditing controls related to Network Devices - Auditing Network Devices Ownership - Auditing Network Devices Configuration Review 	1	2
6	<ul style="list-style-type: none"> Auditing controls related to Endpoint Devices - Auditing controls related to Endpoint Devices - Auditing Device Ownership - Auditing Operating Systems - Auditing Anti-Virus Software 	1	2
7	Mid team exam	1	2
8	<ul style="list-style-type: none"> 8 - Auditing controls related to Emails - Auditing controls related to Emails - Auditing Sender Policy Framework (SPF) - Auditing DMARC - Auditing Email Attachment Scanning - Auditing Email Restrictions 	1	2
9	<ul style="list-style-type: none"> 9 - Auditing controls related to Outsourcing - Auditing controls related to Outsourcing Activities - Auditing SLA - Auditing audit and compliance reports of service providers 	1	2
10	<ul style="list-style-type: none"> 10 - Auditing controls related to Desktops - Auditing controls related to Desktops - Auditing Operating Systems - Auditing OS Licensed Versions - Auditing Windows Activation - Auditing Password Settings for Windows login - Auditing Administration Rights - Auditing Time Synchronization - Auditing Change Date and Time Restrictions - Auditing Screen Savers - Auditing Patch Updation 	3	6

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
	<ul style="list-style-type: none"> - Auditing Offer to Save Passwords - Auditing Updated Browsers - Auditing Installed Softwares - Auditing Application Installation Restrictions - Auditing USB Restrictions - Auditing Google Drive Restrictions - Auditing VBA/Macro Restrictions - Auditing Powershell Restrictions - Auditing Windows Run Restrictions - Auditing User Training 		
11	Final team exam	1	2
Number of Weeks /and Units Per Semester		14	

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
1	1- Introduction - Introduction to Information System Audit - Understanding the Audit Report Format	1	2
2	Auditing Information System Policy - Auditing Information System Policy - Auditing controls related to Applications	1	2
3	3- Auditing controls related to Database - Introduction - Auditing controls related to Database - Auditing Database Ownership - Auditing Database Categorization - Auditing Operating Systems - Auditing Backup Location - Auditing PIM Software - Auditing Secured Configuration Documentation - Auditing Password Encryption - Auditing Encryption Algorithm - Auditing Backup Restoration Test	2	4
4	4- Auditing controls related to Datacenter - Auditing controls related to Datacenter - Auditing SLA for Cloud Storage - Auditing Datacenter Audit & Compliance Reports	1	2
5	5- Auditing controls related to Network Devices - Auditing controls related to Network Devices - Auditing Network Devices Ownership - Auditing Network Devices Configuration Review	1	2

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
6	Auditing controls related to Endpoint Devices - Auditing controls related to Endpoint Devices - Auditing Device Ownership - Auditing Operating Systems - Auditing Anti-Virus Software	1	2
7	Mid team exam	1	2
8	8 - Auditing controls related to Emails - Auditing controls related to Emails - Auditing Sender Policy Framework (SPF) - Auditing DMARC - Auditing Email Attachment Scanning - Auditing Email Restrictions	1	2
9	9 - Auditing controls related to Outsourcing - Auditing controls related to Outsourcing Activities - Auditing SLA - Auditing audit and compliance reports of service providers	1	2
10	10 - Auditing controls related to Desktops - Auditing controls related to Desktops - Auditing Operating Systems - Auditing OS Licensed Versions - Auditing Windows Activation - Auditing Password Settings for Windows login - Auditing Administration Rights - Auditing Time Synchronization - Auditing Change Date and Time Restrictions - Auditing Screen Savers - Auditing Patch Updation - Auditing Offer to Save Passwords - Auditing Updated Browsers - Auditing Installed Softwares - Auditing Application Installation Restrictions - Auditing USB Restrictions - Auditing Google Drive Restrictions - Auditing VBA/Macro Restrictions - Auditing Powershell Restrictions - Auditing Windows Run Restrictions - Auditing User Training	3	6
11	Final team exam	1	2
Number of Weeks /and Units Per Semester		14	

VI. Teaching and Learning Strategies of the Course:

- Interactive lectures,
- Problem solving,
- Tutorials,
- Seminar/ Project/Presentation,
- Teamwork,
- Laboratory based session,
- Interactive Class Discussions,
- Directed Self- Study,
- Exercises and Home Works,
- Field Visits.

VII. Assessment Methods of the Course:

- Coursework Activities
- Written tests
- Written assessments such as multiple-choice questions and Quizzes
- Report/Project/ Practical Lab Sessions
- Home works and assignments.
- Presentations

VIII. Assignments:

No.	Assignments	Week Due	Mark
1	Assignment 1: Ideation Assignment	1-10	5
2	Assignment 2: Ideation Presentation	2-12	5
3	Assignment 3: Class Attendance and Participation	Every unit	5
4	In-Class Assignments, Activities & Homework	2-12	5
Total			

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Assignments	1-12	20	
2	Mid-Term Theoretical Exam	7-8	20	

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
3	- Venture - Presentations - Final Venture Proposal	14	20	
4	Final Theoretical Exam	16	40	
Total			100	

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Assignments	1-12	20	
2	Mid-Term Theoretical Exam	7-8	20	
3	- Venture - Presentations - Final Venture Proposal	14	20	
4	Final Theoretical Exam	16	40	
Total			100	

X. Learning Resources:

- *Written in the following order: Author, Year of publication, Title, Edition, Place of publication, Publisher.*

1- Required Textbook(s) (maximum two):

Philippe Peret, Information System Audit: How to Control the Digital Disruption, Series: Security, Audit and Leadership Series , ISBN: 2022001328 ,CRC Press, Year: 2022

Rajkumar Banoth, Gugulothu Narsimha, Aruna Kranthi Godishala, A Comprehensive Guide to Information Security Management and Audit ,CRC Press, Year: 2022 ,ISBN: 1032344431

2- Essential References:

Robert E. Davis, Auditing Information and Cyber Security Governance: A Controls-Based Approach, Series: Internal Audit and IT Audit ,CRC Press, Year: 2021 ,ISBN: 0367568500

Gerardus Blokdyk, Information Security Audit A Complete Guide - 2020 Edition

3- Electronic Materials and Web Sites etc.:

Websites:

www.c3i.osd.mil/org/cio/i3/AWG_Digital_Library/index.htm

www.isaca.org

www.bsi.org

www.isaca.org/gir

www.isaca.org/cobit.htm

XI. Course Policies: (Based on the Uniform Students' Bylaw (2007))

1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.