HANDONG UNITWIN FELLOWSHIP

SYLLABUS

Lecturer's Information	
Name	Ninyikiriza Deborah Lynn
University	Kumi University

Course Information			
Course Name	IT Risk Management and Control	Prerequisite Course	
Course Date	2024-08-26 ~ 2024-12-07	Course Language	English
Keyword	Risk Management, IT Controls, Cybersecurity, Compliance and Governance, Frameworks and Standards, Business Continuity and Disaster Recovery, Access Management		

Course Description (100 ~200 words)	This course explores a comprehensive understanding of IT risk management principles and practices, methodologies, and controls. It further covers the identification, assessment, mitigation and management of IT risks in information technology environments along with the implementation of effective control measures to protect organizational assets. It focuses on the development and implementation of effective IT risk management strategies that align with organizational goals and regulatory requirements. Students will learn to evaluate various types of IT risks like strategic, operational, and compliance risks, plus cybersecurity threats. They will also learn key frameworks and standards, such as NIST Cybersecurity Framework, COBIT, and ITIL and, ISO/IEC 27001, used to establish and maintain strong IT controls. The course will also examine the significance of business continuity planning and disaster recovery in reducing the impact of potential issues and the role of IT governance in ensuring that risk management practices are integrated into the overall management of IT resources. Students will gain skills needed to design, implement, and manage IT controls that protect critical assets, ensure data integrity, and support the operations of an organization through real-world examples, case studies, and practical exercises to challenge the complexities of IT risk in the digital environment.
Course Goals and Objectives (Approximately 100 words)	Goals; -To equip Students with Comprehensive Knowledge of IT Risk Management and develop Practical Skills in Implementing IT Controls. -Foster an Understanding of Regulatory Compliance and IT Governance thus preparing Students for Real-World Risk management Challenges. To promote Critical Thinking and Decision-Making in Risk Management. objectives; -To understand the fundamental concepts of IT risk management. -To identify and assess various types of IT risks. -To develop and implement risk management strategies. -To learn about IT control frameworks and standards. -To apply risk management practices to real-world scenarios
Textbook	**(The format : Title, Author/Editor, Publisher, Year of Publication)** - Cybersecurity Risk Management: Mastering the Fundamentals Using the NIST Cybersecurity Framework, Cynthia Brumfield, Wiley, 2022 - Cybersecurity Incident Response: How to Contain, Eradicate, and Recover from Incidents, Eric C. Thompson, Wiley, 2023 - IT Risk Management: How Best to Protect Your IT Infrastructure, Tobias Ackermann, Springer Vieweg, 2021 - Enterprise Risk Management: A Common Framework for the Entire Organization, Philip E. J. Green, Butterworth-Heinemann, 2022 - Practical Cyber Risk Management: The Management Guide for Defensible Decisions, Ariel Evans, Routledge, 2022 - Risk Management in Cybersecurity: A Business-Driven Approach, Tim Virtue, Justin Murphy, CRC Press, 2020
References	- The Art of Cyber Risk Management: Essentials for a Changing Threat Landscape, Wheeler, E, Apress, (2023). - The NIST Cybersecurity Framework: Implementation and Assessment, Hernandez, S, CRC Press, (2022) - Building a Future-Proof Cloud Infrastructure: A Blueprint for IT Leaders, Silvano Gai, Addison-Wesley Professional, 2021 - Risk Management in Cybersecurity: A Business-Driven Approach, Tim Virtue, Justin Murphy, 2020
Course Requirements and Grades	This is a basic course lectured to information technology and computer science students and therefore requires Basic Knowledge of Information Technology. Grading; Coursework and Assignments 30% Final Exam 70%

Weekly Schedule		
Week	Main Topics	Keywords
1	Introduction to IT Risk Management	IT, Risk, Risk Management Lifecycle, Cybersecurity, Vulnerability etc
2	IT Risk Management Frameworks and Standards	Risk Management Frameworks, ISO/IEC 27001, NIST, COBIT, ITIL etc
3	Identifying IT Risks	Cybersecurity, Operational, Compliance, Risk Assessment Tools etc
4	Risk Assessment and Analysis	Risk Analysis, Assessment, Qualitative Risk Assessment, Quantitative Risk Assessment,Threat Modeling, Risk Matrix etc
5	Risk Evaluation and Prioritization	Risk Criteria,Risk Prioritization,Risk Appetite, Risk Evaluation,Tolerance, Impact Assessment,Risk Acceptance, etc
6	Risk Mitigation Strategies	Avoidance, Reduction, Transfer, Acceptance, Risk Mitigation Plans,Controls etc
7	IT Control Frameworks	ITIL, SOX, COBIT, Effective Controls, ISO/IEC 27001, Control Implementation etc
8	Access and Identity Management	Authorization, Access Management, Authentication, SSO, MFA, RBAC, ABAC etc
9	Incident Management and Response	Incident, Security Incident, Incident Response Plan (IRP), Incident Response Team (IRT), Detection and Analysis etc
10	Business Continuity and Disaster Recovery	Business Continuity Planning (BCP),Disaster Recovery Planning (DRP), Testing,Maintaining etc
11	Compliance and Regulatory Issues	Regulatory Requirements, GDPR, HIPAA, SOX, Compliance Strategies, Best Practices etc
12	Security Governance and Management	Governance, Governance Structures, Policies, Governance Frameworks etc
13	Emerging Risks and Technologies	Cloud Computing Risks, Emerging Technologies, AI, IoT, etc
14	Risk Management in Project Management	IT Projects,Risk Identification, Integration, IT Project Management, Project Risk Management ,. Risk Mitigation, Risk Communication, etc
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