SCHOOL OF INFOCOMS
DEPARTMENT OF INFORMATION SCIENCE, HEALTH RECORDS AND SYSTEMS

COURSE OUTLINE

COURSE CODE: INF 325 **COURSE TITLE: CLOUD COMPUTING AND EMERGING TECHNOLOGIES UNITS**: 3
YEAR: 2025 **SEMESTER:** 2 **ACADEMIC YEAR:** 2024/2025
Day: …… **Time:** ……**Venue:** ……
Lecturer's Name: Stephen Ajwang **Phone No.:** 0726859926 **Email:** soloo@rongovarsity.ac.ke

Purpose of the Course	
Expected Learning Outcomes of the Course	By the end of the course, the learner should be able to: • Understand concepts and technologies of cloud computing. • Understand how cloud computing changes the ICT landscape. • Understand technologies used in cloud computing, such as microservices and configuration management. • Have a general understanding of architectures and the lifecycle of a cloud computing deployment. • Have hands-on experience with a cloud platform
Course Description	

Course Content/ Topics

WEEK	Topic
1	Introduction to Cloud Computing Cloud Platforms and Services
2	Cloud Architecture and Design
3	Cloud Security and Compliance
4	Cloud Operations and Management
5	**CAT 1**
6	Networking in Cloud Environments
7	Cloud Migration and Integration
8	Advanced Cloud Concepts
9	**CAT 2**
10	Practical Labs and Projects
11	
12	Emerging Trends and Future Directions
13	
14	**University Regular examination**

15	**University Regular examination**
Mode of Delivery	Lectures, Lab practicals and assignments
Instruction Materials and /or Equipment	▪ Textbooks, Journals, Internet Sources. ▪ Computers
Course Assessment	TYPE WEIGHT Assignments/CATs 40 % Exam 60 % Total 100 %
Core Reading Materials for the Course	a) Erl T., Mahmood, Z., Amoroso, R.P. (2013). Cloud Computing: Concepts, Technology & Architecture. Prentice Hall b) Kavis, M.J. (2014). Architecting the Cloud: Design Decisions for Cloud Computing Service Models (SaaS, PaaS, and IaaS). Wiley c) Baron, J., Hisham Baz, H. et al. (2018). AWS Certified Solutions Architect Official Study Guide: Associate Exam. Wiley d) Srinivasan, V. (2018). Google Cloud Platform for Architects: Design and manage powerful cloud solutions. Packt Publishing e) Modi, P. (2017). Azure for Architects: Create secure, scalable, high-availability applications on the cloud. Packt Publishing f) Kleppmann, M. (2017). Designing Data-Intensive Applications: The Big Ideas Behind Reliable, Scalable, and Maintainable Systems. O'Reilly Media g) Mantle, J.M., & Lichty, R. (2019). The Cloud Adoption Playbook: Proven Strategies for Transforming Your Organization with the Cloud. Apress h) Klein, B.H. (2020) Pro Cloud Admin: A Guide to Professional Cloud Administration. Apress i) Garrison, J., & Nova, K. (2017) Cloud Native DevOps with Kubernetes: Building, Deploying, and Scaling Modern Applications in the Cloud. O'Reilly Media
Recommended Reference Materials	j) Zomaya. AY. (2011). Cloud Computing: Principles, Systems and Applications. Springer

Lecturer's Signature……**Date**……..

Head of Dept signature……..**Date**…….……

Name of Head of Department……..

Received by the Class:

Name of Class Representative……..…… **Registration No**. ……

Signature of Class Representative……. Date…….

Kindly note that, as established in the University's Common Rules and Regulations for University Examinations, the scheduling and administration of Continuous Assessment Tests shall normally be spaced as follows:
(a) 1st CAT – 4th to 6th week of a Semester
(b) 2nd CAT – 8th to 10th week of a Semester