**Information System & Network Security**

**Course Code:** ISNS 6202

**Total Credit:**  14 Credits

**Total hours:** 140 hours

**Course status:** Specialty core course

**Course aim:** This course aims at enabling students understand the concepts and identify some of the factors driving the need for network security; identify and classify particular examples of attacks; define the terms vulnerability, threat and attack and identify physical points of vulnerability in simple networks.

**Course Expected Learning Outcomes**

At the end of this course, students will acquire knowledge, skills and competencies that will enable them to:

* Identify the major types of threats to information security and the associated attacks.
* Develop strategies to protect organization information assets from common attacks.
* Recognize how security policies, standards and practices are developed.

**Course Content:** To achieve the above-mentioned outcomes, the course contents include;

Basics of Information System, The changing nature of Information System,

Threats of Information System, Threats and attacks, Classification of Threats and attacks,

Protecting Information System Security,

Security in Wireless Computing, Credit Card frauds in mobile and wireless Computing, Security Policies and Measures in Mobile Computing,

Information Security Management, Security Policy, Standards, Responsibility for Information Security Management, Information Security Processes and Best practices,

E-Commerce Security,

Building Blocks of Information Security, Basic principal of Information Systems Security, Information Security risk analysis, Term and Definitions for Risk Analysis of Information Security, Risk Management and Risk Analysis, Data Privacy Fundamentals,

Attacks - Services – Mechanisms- Model of Network security.-OSI architecture.

**Teaching and Learning activities**: Teacher-centred lectures, Seminar, Tutorials, Assignments, Independent studies and Practicals.

**Assessment Methods**: The course will involve

1. Formative assessment which constitute 40% involving the following activities; attempt customized questions; written assignments; read and review current research findings in the area, develop and/or assess prototypes; report writing on different assignments/practicals and presentations.
2. Summative assessment which constitute 60% involving university examination

**Reading List:**

1. Merkow, M. S., & Breithaupt, J. (2014). *Information security: Principles and practices*. Pearson Education.
2. Maiwald, E. (2004). *Fundamentals of network security*. New York, NY: McGraw-Hill Technology Education.
3. Stallings, W., & Chandavarkar, B. R. (2014). *Network security essentials: applications and standards*. Boston: Pearson.
4. Bragg, R., Phodes-Ousley, M., & Strassberg, K. (2004). *Network security: the complete reference*. Emeryville, CA: McGraw-Hill/Osborne.