NSA - NETWORK AND SYSTEM ADMIN

NSA 100 Create web applications (4-0-4)
Develops the skills and knowledge required to create web applications according to technical requirements. Upon completion of this unit, learners will be able to use appropriate tools to create web applications and to create dynamic behavior on web sites.

NSA 101 Install, configure and test a small local area network (4-0-4)
This unit introduces designing and managing enterprise computer networks. It encompasses safe working practices, the concept of design and management of a networked infrastructure.

NSA 102 Develop skills for work organization and management (2-0-3)
Develop the skills and knowledge required to understand the dynamic of an organization, deliver the solutions that matches the clients' expectations at the same time abiding by socio-economic and political constraints. It applies to individuals who seek to work for an organization that has chain of command and is business with the clients who are not necessarily from the same socio-culture.

NSA 103 Comply with copyrights, ethics, privacy and standards in an ICT environment (1-1-2)
Develop the skills and knowledge required to maintain professional and ethical conduct, as well as to ensure the confidentiality of personal information of stakeholders and exhibiting the professionalism whilst dealing with them. It applies to individuals who to gather information to determine the organization's code of ethics, and protect and maintain privacy policies and system security.

NSA 104 Administer network server (2-2-4)
This module aims to provide the learners with the knowledge and skills to administer a network server. Learners will gain an understanding of server hardware architecture, enabling them to implement server roles tailored to organizational needs and the ability to compare and classify disaster recovery requirements. They will acquire skills to implement storage solutions, apply security measures to safeguard networked servers, and troubleshoot server issues.

NSA 106 Create simple software programs and develop problem solving skills (2-2-4)
This module aims to provide learners with the knowledge and skills required to acquire problem-solving abilities, design algorithms, and create simple software programs using a programming language.Topics include, but are not limited to, IPO, flowchart, pseudocode, algorithm, conditional execution, loops, programming language syntax, semantics, and runtime environment.

NSA 108 Manage network routing and switching (2-2-4)
This unit aims to provide learners with the knowledge and skills needed to set up, manage, and resolve issues in an enterprise network. This includes the configuration of network devices such as switches and routers, connecting to Wide Area Networks, and deploying enterprise-level network solutions.
Prerequisites: NSA 101

NSA 110 Classify Computer Hardware, Network Devices and Protocols (2-2-4)
This unit aims to provide learners with the knowledge and skills required to classify and examine the components, devices, and protocols that underpin modern computer networks. Topics include but are not limited to computer hardware, enterprise network devices, network protocols and architecture.

NSA 111 Administer Network Services (2-2-4)
This unit aims to provide learners with the knowledge and practical skills required to effectively implement, maintain, and secure network services in diverse computing environments. The unit focuses on developing a comprehensive understanding and implementation practice of network services, including DNS, DHCP, and NAT, to support the seamless operation of network infrastructures. Learners will be able to set up, troubleshoot, secure, and optimize these services to a given specification.

NSA 130 Experience the Nature of the Workplace (0-4-4)
This module aims to equip learners with knowledge and skills in IT systems management, fostering their ability to adapt seamlessly to workplace structures, cultures, and dynamics. Learners will gain expertise in LAN interconnectivity using routers, and skills for classifying hardware design issues within computer architectures and creating comprehensive disaster recovery plans for real-life scenarios. Learners will be given the opportunity to interact effectively with other professionals, and clients in a real-world workplace environment.

NSA 201 Configure enterprise virtual computing environments (2-2-4)
This unit aims to provide learners with the knowledge and skills to effectively interpret and apply virtualization techniques in server administration, install and configure virtualization host software in enterprise environments, understand virtual network and storage components, and evaluate and implement security techniques to safeguard virtualized infrastructures.

NSA 202 Develop fundamental concepts of cloud services and infrastructure (2-2-4)
This unit aims to provide learners with the knowledge and skills to understand and apply fundamental concepts of cloud services and infrastructure, with a focus on Azure technologies, covering cloud computing models, Azure account setup, compute services, storage and database services, and basic user security.

NSA 203 Manage network security (2-2-4)
This unit aims to provide learners with the knowledge and skills to understand fundamental network security concepts, identify common threats, implement basic countermeasures, and perform essential network security maintenance tasks.

NSA 204 Manage Linux servers (2-2-4)
This module aims to provide the learner with specialized knowledge and practical skills focused on the effective installation, configuration, and administration of Linux systems. It covers key Linux server components, including directories, files, user accounts, group accounts, network interfaces and bash scripting. Learners will acquire skills to proficiently navigate and manage Linux environments and will be equipped with the expertise needed to tackle real-world challenges in Linux server administration.

NSA 205 Administer wireless networks (2-2-4)
This unit aims to provide learners with the knowledge and skills to effectively administer wireless networks, encompassing the setup, security, and troubleshooting of WLAN systems, tailored for vocational application in real-world settings.

NSA 207 Manage VLANs and WANs (2-2-4)

This unit aims to provide learners with the knowledge and skills to effectively manage and administer Virtual Local Area Networks (VLANs) and Wide Area Networks (WANs). The curriculum is designed to deepen understanding of VLAN and WAN technologies, focusing on practical aspects such as design, implementation, configuration, and troubleshooting. Learners will develop hands-on experience in setting up and managing VLANs, ensuring seamless WAN connectivity, and employing advanced network security strategies. Through a blend of theoretical learning and practical exercises, this unit prepares stud

NSA 210 Provide Client Support in an Information and Communications Technology (ICT) Environment (3-0-3)

This unit aims to provide learners with the knowledge and skills required to liaise with and support clients to manage and resolve problems in an Information and Communications Technology (ICT) environment.

NSA 211 Administer Domain Services (2-2-4)

This unit aims to provide learners with the knowledge and practical skills necessary to effectively administer, maintain, and troubleshoot domain services in enterprise environments. Through this module, learners will develop a deep understanding of domain services and their critical role in network administration. They will gain the expertise required to oversee user accounts, groups, and resources, to facilitate a secure and efficient network infrastructure.

NSA 212 Process Threat Data (2-2-4)

This unit aims to provide learners with the knowledge and skills required to effectively analyze, interpret, and respond to threat data within network and systems environments. This unit aims to develop a comprehensive understanding of the latest threat landscapes, the tools and techniques for threat data analysis, and the best practices for implementing security measures to mitigate risks.

NSA 213 Investigate Emerging Networking Challenges (2-2-4)

This unit aims to provide learners with an understanding of the latest advancements and challenges in the field of network technology, focusing on the skills necessary to examine, adapt to, and address these emerging challenges effectively. This unit aims to develop critical thinking and problem-solving skills in the context of evolving network infrastructures and technologies.

NSA 230 Undertake on-job experience (0-4-4)

This unit aims to equip learners with the knowledge and skills necessary to apply, integrate, and enhance their technical abilities in a professional setting. It serves as a bridge between theoretical understanding and practical application, fostering the development of proficient ICT professionals capable of meeting industry demands. Students will gain insights into workplace dynamics, professional responsibilities, and practical aspects of ICT domains, preparing them for careers in network administration, security management, client support, and other related fields.

NSA 231 Undertake On Job Training and Support (0-4-4)

This unit aims to equip learners with practical skills for real-world IT workplaces, focusing on managing and supporting IT infrastructure components like cloud services, networking, systems administration, and cybersecurity. Through theoretical instruction and hands-on practice, students are prepared to tackle modern IT challenges, implement advanced solutions, and adapt to industry changes, enhancing their readiness for successful IT careers by providing a comprehensive understanding and application of IT practices in professional settings.

NSA 232 Practice Networks Administration (0-3-3)

This unit immerses students in practical experiences within work placements, shadowing experienced network administrators and gaining direct access to real equipment. Through observing professionals in authentic scenarios, students apply theoretical knowledge to real-world situations, bridging the gap between theory and application. This module aims to develop proficiency in configuring, troubleshooting, and optimizing computer networks. Integrating shadowing, prepares students for network administration challenges, fostering crucial practical skills for effective network management and mainte

NSA 233 Practice Systems Administration (0-3-3)

This unit aims to provide knowledge and practical skills for the proficient administration of complex information systems. Focusing on diverse communication systems, it develops expertise in configuring, securing, and optimizing entire systems. The aim is an in-depth understanding of system architecture, troubleshooting, and robust security measures. Integrating theory with hands-on skills prepares learners for dynamic roles in systems administration, ensuring seamless, secure, and efficient data communication across interconnected systems.