

HIGHER NITEC IN BUSINESS INFORMATION SYSTEMS (3 YEARS)

CERTIFICATION

Credits required for certification:

Sector Foundation Modules	: 24
Cluster Core Modules	: 15
Specialisation Modules	: 30
Life Skills Modules	: 10
Cross Disciplinary Core Modules	: 9
Electives	: 8
Total	: 96

COURSE STRUCTURE

Module Title	Credits
SECTOR FOUNDATION MODULES	
Networking Fundamentals	3
Applied Data Fundamentals	3
Operating System Essentials	3
Digital Media Technologies	3
Programming 1	3
Generative AI Essentials	3
AI-Assisted Web Development	3
Cybersecurity Fundamentals	3
CLUSTER CORE MODULES	
Computer Maintenance	3
Networking Technology	3
System Administration	3
System Hardening & Infrastructure Services	3
Virtualisation Management	3
SPECIALISATION MODULES	
Business Analytics	3
Business Intelligence	3
Database Essentials	3
Application Development	3
Enterprise Systems Administration	3
Enterprise Systems Process	3
Internship Programme 1	4
Internship Programme 2	8
ELECTIVES (GENERAL) AND LIFE SKILLS MODULES	
For details, click here	

Note: The offer of electives is subject to the training schedule of respective ITE Colleges. Students are advised to check with their Class Advisors on the availability of the elective modules they intend to pursue.

MODULE OBJECTIVES

Sector Foundation Modules

Networking Fundamentals

On completion of the module, students should be able to set up, configure, set up and troubleshoot wired and wireless network system for small office environment. They should be able to provide network support and configure network devices.

Applied Data Fundamentals

On completion of the module, students should be able to import data from external sources, perform basic data manipulation and present simple visualisation of the data.

Operating System Essentials

On completion of the module, students should be able to install and configure operating system (OS) and application software on end user computing devices. In addition, they should also be able to perform OS maintenance and troubleshooting.

Digital Media Technologies

On completion of the module, students should be able to apply their knowledge and skills in processing appropriate digital media formats for various platforms delivery.

Programming 1

On completion of the module, students should be able to apply computational thinking for business applications. They will learn to break down complex problems into manageable tasks, apply pseudocode to design algorithms, and implement these solutions through programming.

Generative AI Essentials

On completion of the module, students will gain knowledge in Generative AI applications for design and content creation.

AI-Assisted Web Development

On completion of the module, students should be able to develop web pages using HTML and CSS.

Cybersecurity Fundamentals

On completion of the module, students should be able to apply foundation knowledge and skills in basic cybersecurity controls, detect threats and vulnerabilities, implement security measures aligned with the key security information principles to protect system and device.

Cluster Core Modules

Computer Maintenance

On completion of the module, students should be able to perform installation and configuration of hardware components and peripherals of end user computing devices. In addition, they should also be able to perform end user computing devices maintenance and troubleshooting of hardware problems.

Networking Technology

On completion of the module, students should be able to apply the fundamentals of computer networking in relation to the OSI model. They should also be able to configure and set up wired and wireless local area network (LAN) including network segmentation. Students will also be able to perform network documentation and monitor network performance.

System Administration

On completion of the module, students should be able to set up server operating systems and perform system administration tasks such as user management, resource management and performance monitoring. Students should also be able to configure file server services and implement basic system security.

System Hardening & Infrastructure Services

On completion of the module, students should be able to perform server security hardening and manage infrastructure services. Students should also be able to automate server administration and implement high-availability systems.

Virtualisation Management

On completion of the module, students should be able to set up a virtualisation server and environment, perform backup and recovery of VMs for fault tolerance, and carry out basic troubleshooting with hypervisors and VMs. They will also be able to monitor resource utilisation on the hypervisor, perform VM migration, troubleshoot performance and connectivity issues, secure the virtualised infrastructure.

Specialisation Modules

Business Analytics

On the completion of the module, students should be able to gather requirements, prepare and process data to generate reports that uncover patterns and insights to support business operations.

Business Intelligence

On the completion of the module, students should be able to collect, analyse and visualise data, creating meaningful dashboards that supports data-driven business decision making.

Database Essentials

On completion of this module, students should be able to perform data manipulation and manage database server, as well as create databases and extract information for business report generation.

Application Development

On completion of this module, students should be able to create secured software applications that connect to database.

Enterprise Systems Administration

On completion of the module, students should be able to install and configure Enterprise Resource Planning systems. In addition, they should be able to administer user accounts and customise user interfaces.

Enterprise Systems Process

On completion of the module, students should be able to set up and configure data migration for Enterprise Resource Planning systems. In addition, they should be able to set up and implement security policies, business processes, as well as support in business reporting function.

Internship Programme 1

On completion of the modules, students should be able to integrate and apply a cluster of key technical, social and methodological competencies related to their field of study.

Internship Programme 2

On completion of the modules, students should be able to integrate and apply a cluster of key technical, social and methodological competencies related to their field of study.

Electives (General) and Life Skills Modules

For details, click [here](#).