HIGHER NITEC IN IT APPLICATIONS DEVELOPMENT (3 YEARS)

CERTIFICATION

Credits required for certification:

Sector Foundation Modules	:	24
Cluster Core Modules	:	6
Specialisation Modules	:	27
Internship Programme Modules	:	12
Life Skills Modules	:	10
Cross Disciplinary Core Modules	:	9
Electives	:	8
Total	:	96

COURSE STRUCTURE

Module Title	Credits
SECTOR FOUNDATION MODULES	
Networking Fundamentals	3
Fundamentals of Data	3
Operating System Essentials	3
Digital Media Technologies	3
Coding for AI	3
Introduction to UI/UX	3
Web Development Essentials	3
Cybersecurity Fundamentals	3
CLUSTER CORE MODULES	
Software Development Practices	3
Programming Essentials	3
SPECIALISATION MODULES	
User Experience Development	3
Front-end Web Development	3
Server-side Development	3
Web Content Management	3
Website Optimisation Fundamentals	3
INTERNSHIP PROGRAMME MODULES	
Internship Programme 1	4
SPECIALISATION MODULES	
Enterprise Web Development	3
Mobile Apps Development	3
Enterprise Solutions Development	3
Mobile Solutions Development	3
INTERNSHIP PROGRAMME MODULES	
Internship Programme 2	8
ELECTIVES (GENERAL) AND LIFE SKILLS MODULES	
For details, click here	

Last updated on 3 Dec 2024

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 devices such as switches and wireless access points.

Fundamentals of Data
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.

Coding for AI
On completion of the modules, students should be able to experience the concepts of AI through no to low coding methods. Students will create basic program logic and AI model through fun and engaging project.

Introduction to UI/UX
On completion of the module, students should be able to apply User Interface (UI) and User Experience (UX) development process to produce low-fidelity and high-fidelity wireframes and prototypes for websites and mobile apps.

Web Development Essentials
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 the knowledge and essentials skills in all security domains in the cyber world - information security, systems security, network security, mobile security, physical security, ethics and laws, related technologies, defence and mitigation techniques use in protecting.

Cluster Core Modules

Software Development Practices
On completion of the module, students should be able to apply their knowledge and skills in software development methods on recommended solutions.

Programming Essentials
On completion of the module, students should be able to apply fundamental programming concepts and computational thinking for basic programs.

Specialisation Modules

User Experience Development
On completion of the module, students should be able to design, develop and maintain; mobile and web interfaces. Students will also be able to create and edit graphics and develop user interfaces.

Front-end Web Development
On completion of the module, students should be able to apply the knowledge, techniques and skills to develop responsive web applications using front-end web development technologies.

Server-side Development
On completion of the module, students should be able to develop dynamic database-driven web applications using server-side scripting tools.

Web Content Management
On completion of the module, students should be able to create and deploy websites using a content management system. Students will also be able to setup payment tools through plugins.

Website Optimisation Fundamentals
Upon completion of this module, students should be able to use various tools to improve the performance of a website to drive traffic, increase conversions and grow revenue.

Internship Programme Modules

Internship Programme 1
On completion of the module, students should be able to apply and integrate the skills and knowledge that they have acquired at ITE College and develop competencies in other areas not covered in the curriculum, at the workplace.

Specialisation Modules

Enterprise Web Development
On completion of the module, students should be able to develop Enterprise Web applications using techniques to manage operations of an organisation.

Mobile Apps Development
On completion of the module, students should be able to design, develop and deploy native mobile applications for various platforms.

Enterprise Solutions Development
On completion of the module, students should be able to develop, test and deploy secure web services.

Mobile Solutions Development
On completion of the module, students should be able to apply the knowledge, techniques and skills required to integrate frameworks and database into mobile applications.

Internship Programme Modules

Internship Programme 2
On completion of the module, students should be able to apply and integrate the skills and knowledge that they have acquired at ITE College and develop competencies in other areas not covered in the curriculum, at the workplace.

Electives (General) and Life Skills Modules
For details, click here.