

HIGHER NITEC IN IT APPLICATIONS DEVELOPMENT (3 YEARS)

CERTIFICATION

Credits required for certification:

Foundation Modules	: 24
Core Modules	: 25
Specialisation Modules	: 20
Life Skills Modules	: 10
Cross Disciplinary Core Modules	: 9
Electives	: 8
Total	: 96

COURSE STRUCTURE

Module Title	Credits
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
CORE MODULES	
Software Development Practices	3
Programming Essentials	3
User Experience Development	3
Front-end Web Development	3
Server-side Development	3
Web Content Management	3
Website Optimisation Fundamentals	3
Industry Attachment 1	4
SPECIALISATION MODULES	
Enterprise Web Development	3
Mobile Apps Development	3
Enterprise Solutions Development	3
Mobile Solutions Development	3
Industry Attachment 2	8
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

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.

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.

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.

Industry Attachment 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.

Industry Attachment 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.

Life Skills Modules

For details, click [here](#).