

HIGHER NITEC IN IMMERSIVE APPLICATIONS & GAME (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
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	
Software Development Practices	3
Programming 2	3
SPECIALISATION MODULES	
Gamification Concept	3
Game Programming	3
Game Asset Creation	3
Game Development	3
Game Level Production	3
INTERNSHIP PROGRAMME MODULES	
Internship Programme 1	4
SPECIALISATION MODULES	
Built Environment Visualisation	3
Immersive Applications	3
Geospatial Applications	3
Humanoid Programming	3
INTERNSHIP PROGRAMME MODULES	
Internship Programme 2	8

Module Title	Credits
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 modules, 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

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 2

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

Specialisation Modules

Gamification Concept

On completion of the module, students should be able to conduct research, design contents and apply gamification approach to create game design document.

Game Programming

On completion of the module, students should be able to apply programming concepts to implement game programs, perform game debugging and code optimisation using C# programming.

Game Asset Creation

On completion of the module, students should be able to conduct art direction research and prepare art asset requirements. They will also be able to produce and perform checks on final 2D and 3D artworks.

Game Development

On completion of the module, students should be able to integrate game scripts, perform rapid prototyping and present mini prototypes.

Game Level Production

On completion of the module, students should be able to create, edit and beautify game levels in accordance with the game theme and genre set. Students should also facilitate game play sessions and refine the game levels from the feedback received

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 to the industry and would have gained relevant work experience.

Specialisation Modules

Build Environment Visualisation

On completion of the module, students should be able to use reality capture tools and technologies to replicate physical worlds into virtual environments as required in the areas of digital assets creation.

Immersive Applications

On completion of the module, students should be able to immersive application by integrating user interface and audio in game engine for various immersive platform and mobile devices.

Geospatial Applications

On completion of the module, students should be able to apply Geospatial concepts for decision making and integrate geospatial data to game engine for development of location-based applications.

Humanoid Programming

On completion of the module, students should be able to program a variety of humanoid robot behaviours and perform basic hardware tests.

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 to the industry and would have gained relevant work experience.

Electives (General) and Life Skills Modules

For details, click [here](#).