**General Enquiries**
Tel: 0300 300 0090
Email: enquiries@stockport.tscg.ac.uk Website:
stockport.tscg.ac.uk

# HND Digital Technologies for England (Artificial Intelligence and Solutions) (HTQ)

| | |
|---|---|
| Location | Stockport College |
| Course Type | University Level |
| Department | Computing |
| Start Date | Monday 14th September 2026 |
| Duration | Full-time, Years |
| Time | - |
| Fee | £ 8000.00 |
| Course Code | SFP-HI5H-1100 |

## Course Overview

This Level 5 Higher Technical Qualification (HTQ) provides an opportunity to specialise and develop the competencies to pursue further study or a career in this field of digital technology. You will explore the theoretical foundation of AI, the types and areas of application and analyse the approaches, techniques and tools to deploy Intelligent Systems. You will be equipped to evaluate technical and ethical challenges and opportunities of Intelligent Systems and be able to modify and AI-based system to improve how it exhibits intelligence in response to real world problems. This specialist pathway is aligned to the Software Tester and Software Developer occupational standards, as defined by the Institute for Apprenticeships and Technical Education.

Whilst studying, students may apply for student membership of the British Computer Society and gain associate membership on graduation. The Institute of Science and Technology recognises the qualification for professional membership.

## Course Requirements

Whilst applications are considered on an individual basis, they are usually based on a requirement to have 64 UCAS points from either:

A level 3 vocational qualification, GCE A levels or an Access to Higher Education Diploma

GCSE English Language and Maths at grade C/4 or above.

Mature students with relevant experience and/or professional qualifications are welcome to apply, and may be invited to interview.

## What You Will Learn

In the first year you will study The Fundamentals of AI and Intelligent Systems unit, which is aligned to the Microsoft Azure AI Fundamentals certification. This will involve the discussion of the theoretical foundation of AI, its impact on users and organisations and analysis of the approaches, techniques and tools to deploy Intelligent Systems. You will b able to modify an AI-based system and evaluate the technical and ethical challenges and opportunities of Intelligent Systems.

The course comprises a broad range of subjects, for example: Cyber security, the exploration of the nature of cybercrime, investigation of security threats and hazards and response methods are studied. You will be introduced to core concepts of programming, algorithms and the characteristics of programming paradigms. Big data and visualisation for decision making will be examined, along with the investigation of statistical and graphical techniques, tools and industry software solutions. You will examine cloud computing applications, architecture and platforms, compare cloud service providers' approaches and be able to design a deployment model to be hosted in the cloud.

You will appreciate the importance of business intelligence in terms of optimising decision making and performance and develop an awareness of the technologies and methodologies employed. The methodology, terminology and benefits of IoT in the design and development of software applications will be explored, enabling you to develop and evaluate an IoT application. Emerging technologies will be researched, reviewed and evaluated and you will develop the knowledge and skills needed to use risk-based testing (RBT), deployed to organise software testing.

## Assessment

Students are continuously assessed using a variety of methods including reports, presentations, practical workshops, portfolios and evidence.

## Progression

On completion, you may progress a Level 6 top up degree including those that we offer, validated by Sheffield Hallam University:

BSc (Hons) Computing (Software Engineering) top up
BSc (Hons) Computing (Cyber Security) top up
BSc (Hons) Artificial Intelligence

## Career Options

On completion, you may consider roles such as:

Data Analyst
Software tester
Software developer
Cyber security specialist
Network engineer

## Mandatory Units

At level 4 you study:

- Professional Practice in the Digital Economy
- Innovation and Digital Transformation
- Cyber Security
- Programming
- Big Data and Visualisation
- Cloud Fundamentals
- Software Development Lifecycles
- Fundamentals of Artificial Intelligence and Intelligent Systems

At level 5:

- Business Intelligence
- Internet of Things
- Emerging technologies
- Risk Analysis and Systems testing
- Application Development
- Application Program Interfaces
- Digital Sustainability
- Pitching and Negotiating Skills

## Hours Per Week

12 hours per week

## How Long To Complete

2 years

## Contact Details

For further information please email HEenquiries@tcg.ac.uk

## Disclaimer

Although every care has been taken to ensure that the information contained within this document is accurate, there may be changes to this programme and provision. We will endeavour to keep prospective and current students updated where appropriate and when the information becomes available.