Digital Technologies – Artificial Intelligence HNC	
Department	Digital and Creative Technologies
Awarding Body	PEARSON
Additional Accreditations	N/A
Full-time Duration	One Years (with option to extend to HND in year 2)
Part-time Duration	This course is not available on a part time basis
Full-time Annual Fee	£6,360
Part-time Annual Fee	N/A
Entry Requirements	UCAS Tariff: 96 points A Level: CCC Extended Diploma: MMM Students not meeting exact requirements can be assessed on a case-by-case basis, particularly where industry experience is evident.
Study Location	University and Professional Development Centre, 73 Western Way, Bury St Edmunds UK
Subject to Validation	No
Additional Potential Costs	Costs may include books if you wish to have your own copies averaging around £100 - £200 per year as well as visits to exhibitions/events; paper-based materials; and printing (although most work is submitted electronically).
Narrative	Artificial Intelligence (AI) is at the forefront of digital transformation, shaping industries and redefining how we work, communicate, and solve complex problems. The BTEC Higher National in Digital Technologies (AI Solutions and Applications) is designed for individuals who want to develop technical expertise in AI-driven solutions, preparing them for roles in software development, machine learning, data analytics, and intelligent system design. This qualification offers a practical, industry-aligned curriculum that combines core AI principles with hands-on applications in intelligent systems, deep learning, and automation. By studying with us, you will gain the critical thinking and problem-solving skills required to succeed in an AI-driven job market. Through practical assignments, real-world projects, and engagement with industry tools, you will explore theoretical foundations of AI, learn how to deploy intelligent systems, and understand the ethical and societal implications of AI in modern technology landscapes. Graduates of this programme will be well-prepared for progression into AI-related roles, further study at university level (such as BSc in Artificial Intelligence or Computer Science), or professional certifications in AI and data science. Take your place in the future of AI. Join a programme designed to equip you with the skills, knowledge, and confidence to innovate in the digital age.

Key Course Features	The course is delivered on campus/online and requires students to attend a two full days per week plus online learning for 3 hours per week. Delivery of the course is through a range of methods including lectures, seminars, case-studies, discussions, and workshops.
Career Prospects	The Pearson BTEC Level 4 Higher National Certificate is recognised by Higher Education providers as meeting admission requirements to many relevant Digital Technologies related courses, for example: • BSc (Hons) in Artificial Intelligence • BSc (Hons) in Business Analytics • BSc (Hons) in Computer Science • BSc (Hons) in Cyber Security • BSc (Hons) in Data Science and Analytics • BSc (Hons) in Network Engineering • BA (Hons) in Social Media Management • BSc (Hons) in Software Engineering Students should always check the entry requirements for degree programmes at specific Higher Education providers. After completing a Pearson BTEC Higher National Certificate or Diploma, students can also progress directly into employment. **Typical job roles and salaries:** • Cyber security specialist £53,000 – £62,000 • Software developer £26,000 - £70,000 • Data analyst £23,000 - £60,000 • Network technician £34,000 - £88,000 • Junior animator £21,000 - £36,000 • Software tester £31,000 - £51,000 • Business analyst £24,000 - £65,000
Module Summary	**Level 4 (Year 1)** Unit 1 – Professional Practice in the Digital Economy This unit examines the impact of the Fourth Industrial Revolution on work environments, emphasising the importance of professional development, transferable and communication skills, problem-solving, and collaboration to enhance workplace competence and career success in the digital age. Unit 2 – Innovation and Digital Transformation This unit explores how businesses leverage digital transformation—integrating digital technology across operations to enhance innovation, agility, leadership, and customer experience—enabling them to adapt to market changes and maximise ROI. Unit 3 – Cyber Security This unit equips students with knowledge of cyber threats, vulnerabilities, and defence strategies, focusing on cybercrime, information assurance, and strategic responses to enhance cyber resilience and protect ICT infrastructure. Unit 4 – Programming This unit introduces core programming concepts, algorithms, and paradigms, enabling students to design and implement algorithms using an Integrated Development Environment (IDE) while developing critical thinking, analysis, and problem-solving skills essential for academic and professional success.

Unit 5 – Big Data & Visualisation

This unit explores big data and visualisation for decision-making, teaching students to use industry tools to analyse and present data, address ethical challenges, and develop skills essential for roles in the digital sector.

Unit 7 – Cloud Fundamentals

This unit introduces the fundamentals of cloud computing, including its architecture, deployment models, and services, equipping students with critical skills for understanding, managing, and leveraging cloud technologies in academic and professional contexts.

Unit 11 – Software Development Lifecycles

This unit teaches students the software development lifecycle, focusing on different models and methodologies to enable them to implement and manage projects effectively, while developing critical skills for professional and academic success.

Unit 15 – Fundamentals of Artificial Intelligence (AI) & Intelligent Systems

This unit introduces the science and applications of Artificial Intelligence (AI) and Intelligent Systems, exploring machine learning, ethical challenges, and real-world problem-solving while equipping students with the skills to evaluate and deploy AI technologies.

Staff Team

Catherine Lock

Ben Lewis

Michael Kerry

Michael Harding

Lecturing staff have qualifications in, at undergraduate and post graduate level. The team have a wealth of experience in industry, research and higher education.

Assessment Methods

Projects, Report, Portfolio, Review, Reflection, Action Research.

Typical Module Diet

All modules are 15 credits unless stated

Level 4 HNC	Semester
Unit 1 – Professional Practice in the Digital Economy	One
Unit 2 – Innovation and Digital Transformation	One
Unit 3 – Cyber Security	One
Unit 4 – Programming	One
Unit 5 – Big Data & Visualisation	Two
Unit 7 – Cloud Fundamentals	Two
Unit 11 – Software Development Lifecycles	Two
Unit 15 – Fundamentals of Artificial Intelligence (AI) & Intelligent Systems	Two

Study Hours

Study Hours per 15 credit Module: 150 hours

	Lectures and Seminars: 45 hours per module Assessments: 30 hours Preparation and Independent study: 60 hours *Typically, four 15 credit modules will be studied per Semester. There are two Semesters a year.

This programme is regulated by the Office for Students under the Quality Assurance Agency framework for UK Higher Education. Where studying may incur additional incidental or optional costs these are listed on the relevant course page on our website. Our Terms and Conditions, Admissions Policy (including baseline English language requirements) can be accessed via the University Studies website at https://www.universitystudies.wsc.ac.uk/policies