

# Digital and Technology Solutions Specialist

**Masters Degree Apprenticeship** 



### **Contents**

- 3 Award-winning Degree Apprenticeships
- 4 About the course
- 6 Success stories
- 8 Creating a supportive environment
- 10 Delivery and structure
- 12 Subject specialism unit overviews
- 14 Application information

## Award-winning Degree **Apprenticeships**

Manchester Metropolitan University is one of the most popular universities in the UK, currently educating over 39,000\* students. The University takes its responsibility for creating work-ready graduates very seriously and maintains close industry and business links.

Our Degree Apprenticeships are practicefocused. They equip our apprentices with the skills to ensure they are ready to take on the industrial challenges of tomorrow and make their mark. We develop our courses in partnership with employers, to meet the needs of industry and individuals.

As pioneers of degree apprenticeships, we have become industry leaders, allowing us to build unrivalled partnerships with some of the UK's largest employers and innovative small and medium-sized enterprises (SMEs).



<sup>\*</sup>HESA data 2020/21, includes students on distance learning and accredited courses at partner institutions



**Top university** in the UK for degree apprenticeships

RateMyApprenticeship Awards 2019, 2020, 2021, 2022

.....



merit or distinction at EPA in 2022



apprentices recognised at regional and national awards

Winner University of the Year at the Multicultural **Apprenticeship Awards 2022** 

.......

**Employer** partners

Rated \star 'Outstanding'

. . . . . . . . . . . . . . . .

by Ofsted 2018 and 2022 .....

**Training Provider** of the Year **North West Apprenticeship** Awards 2023

# About the **course**

This masters-level programme blends together the skills and knowledge of a technical specialism with a digital leadership and transformation skills focus.

Developed with leading national employers, the Digital and Technology Solutions Masters Degree Apprenticeship is a proud recipient of the Tech Industry Gold accreditation.

It is ideal for experienced digital or technical professionals looking to take the next step in their career, dealing with strategic challenges as an industry leader. Apprentices take three core units and then choose a specialist area of study from: Software Engineer, IT Strategy, Cyber Security, IT Strategy and IT Project Management

#### The course

The course is designed to enhance apprentices' understanding by teaching specialist knowledge and building the capabilities required to apply it in the dynamic digital workplace of today. Apprentices will develop the advanced technical and management skills needed to succeed as a leader in IT.

The core curriculum focuses on the essential technical and business concepts required for strategic management. Apprentices then develop their technical capability in a specialism that aligns with their job role.

#### The qualification

Upon successful completion of the course, participants will achieve a MSc Digital and Technology Solutions degree, in addition to a Level 7 degree apprenticeship in digital and technology solutions.



#### Expertise

The Digital and Technology Solutions Masters Degree Apprenticeship utilises expertise from across the University – combining the knowledge and skills of academics from the Department of Computing and Mathematics, with those from the University's internationally accredited Business School. Apprentices will benefit from researchinformed teaching and an excellent working and learning environment.

## Core skills, knowledge and behaviours

Our Digital and Technology Solutions apprentices are confident, competent and capable individuals able to apply leadership and change management skills to operate in a range of digital and technology related specialist roles. The course is based upon a core set of knowledge, skills and behaviours that will be supplemented by one specialism (outlined on page 10).

#### Core technical skills

Apprentices will develop a variety of core technical skills, including:

- Identify, document, review and design complex IT-enabled business processes that define a set of activities that will accomplish specific organisational goals, and provide a systematic approach to improving those processes.
- Deliver workplace transformations through planning and implementing technologybased business change programmes.
- Be competent at negotiating and closing techniques in a range of interactions and engagements, both with senior internal and external stakeholders.

- - Develop own leadership style and professional values that contribute to building high performing teams.
  - Apply broader technical knowledge combined with an understanding of the business context, and how it is changing, to deliver the company's business strategy.
  - Create and implement innovative technological strategies to support the development of new products, processes and services that align with the company's business strategy.

#### Core technical knowledge

Apprentices will develop a range of core technical knowledge, including:

- The principles of business transformation and how organisations integrate different management functions in the context of technological change.
- The role of leadership in contemporary technology-based organisations.
- How to monitor technology-related market trends, research and collect competitive intelligence.
- Technology road-mapping concepts and methods and how to apply them.



- The role of learning and talent management in successful business operations.
- Inspire and motivate others to deliver excellent technical solutions and outcomes.
- Be results and outcome-driven to achieve high key performance outcomes for digital and technology solutions objectives.
- Develop and support others in developing an appropriate balance of leadership and technical skills.
- Create strong positive relationships with team members to produce high performing technical teams.

#### **Core Behaviours**

Apprentices will establish a range of core behaviours, including the ability to:

- Inspire and motivate others to deliver excellent technical solutions and outcomes.
- Establish high levels of performance in digital and technology solutions activities.
- Promote a high level of co-operation between own work group and other groups to establish a technology change led culture.
- Develop and support others in developing an appropriate balance of leadership and technical skills.
- Create strong positive relationships with team members to produce high performing technical teams.

## Success stories

I was drawn to the masters apprenticeship primarily because it includes provision from my employer for off-the-job time associated with the course, and also because the apprenticeship levy covers the cost of the course.



The course links back very well to my current role within Manchester City Council, and it's great that I can directly relate and apply what I'm learning into the workplace.

My apprenticeship focuses all learning around real-world situations and assesses us based on how we are able to apply our learning to the workplace. As a student, this is a great way to consolidate everything we're being taught and it's a great opportunity to develop our workforce. This ultimately helps the organisation perform at a higher level and provide better value for money to our service users.

Speaking as both an apprentice, and the manager of an apprentice, I would highly recommend degree apprenticeships to others. They present an opportunity that benefits both the individual, and the employer.

Ruben Thakuria Digital and Technology Solutions Masters Degree Apprentice Manchester City Council Following the Digital and Technology Skills Level 6 Degree Apprenticeship, I was supported by my team to progress onto the Digital and Technology Solutions Level 7 Degree Apprenticeship.

As a direct result of the apprenticeship and the new knowledge and skills I've developed, I've been able to take on more responsibility at work. I think this is in large part due to the ethos of apprenticeships: you never stop looking for opportunities to learn.



I am fortunate enough to work for an organisation that recognises the value of apprenticeships and, not only that, but celebrates them in an annual awards ceremony. I was very proud to have recently been awarded Apprentice Ambassador of the Year. This was due to my work in promoting and supporting apprenticeships internally and externally.

Nancy Taylor-Hughes Digital and Technology Solutions Masters Degree Apprentice Alumna Lloyds Banking Group

## Creating a supportive environment

In order to create an environment where apprentices will be able to achieve successful outcomes, both academically and within their organisations, the University has put in place a wide range of support.

#### **Apprentices**

#### **Dedicated skills coach**

A dedicated skills coach will conduct quarterly reviews with the apprentice and employer, advise on University regulations and procedures, and provide pastoral support.

#### Personal learning plan

Where additional learning support requirements are identified, they will be met through a Personal Learning Plan.

#### **University services**

Full access to University services – including disability services, wellbeing, the library, IT services and sports facilities.

#### **Online study environment**

Study materials can be accessed 24/7 via our online study environment, Moodle. Our course is designed to support learners who live and work outside of the north-west. Moodle enables apprentices to access reading lists, download journal articles, contribute to online discussion groups, email tutors, listen to podcasts and submit assignments.

#### **Cutting-edge facilities**

Our Business School is triple accredited by EQUIS, AACSB and AMBA, placing us among the best business schools in the world. The awarding of these accreditations is testament to our high standards of excellence in teaching and research.

We have state-of-the-art networked laboratories housing dual booting PCs and Apple Macs. All machines provide industrystandard software, professional operating systems and have additional specialist, discipline-specific software and hardware. Some of these are tailored for particular specialisms, such as our Networking labs, Games Lab and Computer Animation Lab.

Apprentices also have access to specialist equipment, for example iOS or Android phones and tablets, and games consoles.

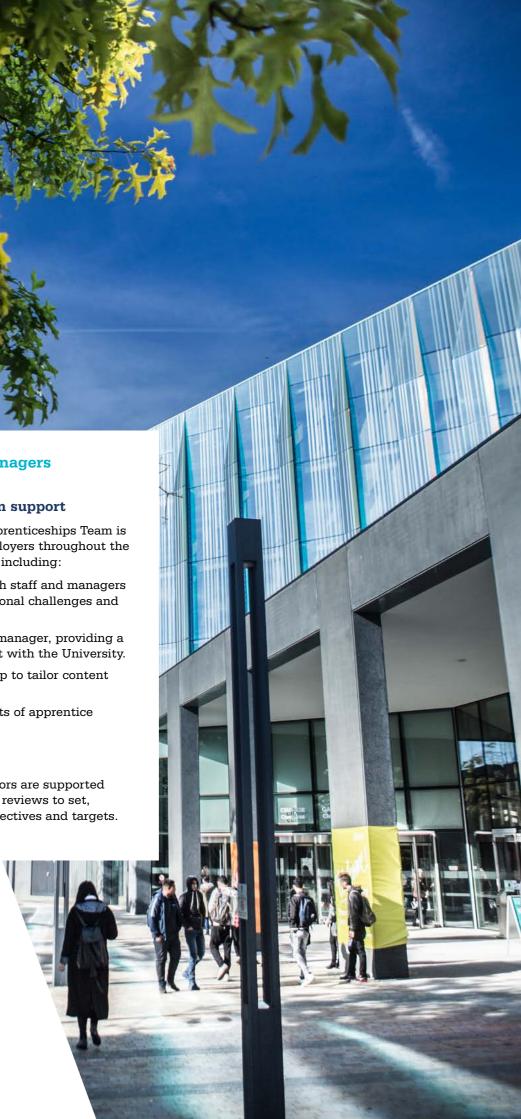
#### **University** library

The main University Library is located on the All Saints Campus and is open 24/7 during the academic year.

The Library provides access to a wide range of books, texts, journals, and business information and statistics. It also runs a number of workshops for mature students on study and research skills.

Many of the Library's resources are available online. For example, apprentices can search the library catalogue, renew and reserve books, and download journal articles and research information.





# **Delivery** and **structure**

Our engaging Digital and Technology Solutions Specialist Masters Degree Apprenticeship programme is designed to build leadership capability and specialist technical knowledge and includes an in-depth work based project.

Our course has been created in collaboration with a group of employers and industry representatives, and is aligned to the Digital and Technology Solutions Specialist apprenticeship standard. This provides the foundation for people to build strategic competencies and technical leadership capabilities. On completion of the course, apprentices will be able to direct digital technology provision, by studying organisational goals, strategies and practices. The standard makes provision for developing professionals within a number of roles and project areas, allowing participants to choose an option that most closely complements their workplace responsibilities and career trajectory.

#### **Delivery**

Apprentices study a mix of core and specialist units with approximately 33 university attendance days over the two year programme, taught in three-day blocks, every three to four weeks, with additional online learning and support. Delivery uses a combination of lectures, workshops, seminars, laboratory sessions and business coaching.

Teaching is delivered on-site at Manchester Met's £75 million Business School and stateof-the-art School of Computing, Mathematics and Digital Technology. Set in the heart of Manchester, the University provides efficient transport links across England.

#### **Subject specialisms**

The programme has a number of specialisms, allowing apprentices to choose an option that most closely complements their role and career trajectory. All specialisms are underpinned by fundamental technical and business concepts, vital for operating in the strategic space of digital and technology management.

Core modules for all specialisms include:

- Digital Leadership and Transformation
- Information Systems
- Reflective Practice in Digital Leadership
- Professional Development
- Synoptic Project

#### Assessment

The assessment for each unit is designed to enable apprentices to apply their academic study to their own organisation and role. The structure of the final synoptic project varies by specialism. All projects will be work-based, with apprentices encouraged to produce an outcome which is relevant to their particular organisation and job role. I'm now working with a wide range of people from the UK and abroad. I feel that my value in the company, and my personal development, have increased exponentially.

#### Choosing a training provider

I was excited when I first heard about the new postgraduate degree in Digital and Technology Solutions as it strongly relates to the job that I'm currently doing. For me, it was important to choose the right training provider where I could get the best possible learning experience. I chose Manchester Met for its reputation and superior teaching support for learners.

#### **Teaching and support**

The teaching style really suits me because of how dynamic and engaging it is. The case studies and group activities are an excellent complement to the lectures. The support I have received has been very good and consistent between modules. My lecturers and assessor have been very responsive.



#### **Progressing my career**

A few months after I started my apprenticeship, my role changed to 'Head of Digital Transformation'. This is a significant progression in my career as I had the opportunity to contribute to our organisation's digital transformation strategy. I'm now working with a wide range of people from the UK and abroad. I feel that my value in the company, and my personal development, have increased exponentially.

I am having such a great experience at Manchester Met that I have enrolled two members of my team to do the same course, at degree level, and they are loving it.

Paulo Antonelli Digital and Technology Solutions Masters Degree Apprentice Pearson PLC

## Subject specialism unit overviews

The availability of the following specialisms will be subject to sufficient employer demand.

#### **Cyber security specialist**

This course provides the skills to design, implement and manage computer-based systems security, using software and networking technologies. It covers key elements of forensic computing and the legal and ethical issues involved in digital investigation.

- Cyber Security Principles and Practices (30 credits)
- Advanced Network Security (30 credits)

#### Data analytics specialist

This course investigates business data requirements, and applies data selection, curation, quality assurance, investigation and engineering techniques. Apprentices will undertake data processing to produce data sets for study and will perform investigations using techniques including machine learning to reveal new business opportunities.

- Computational Statistics, Visualisation and Forecasting (30 credits)
- Data Analytics (30 credits)

#### IT strategy specialist

This specialism explores the potential of technology-based change initiatives to transform an organisation's operating model. The course will embed an understanding of relevant strategy processes, which enhance effective IT strategy development and focus on scoping, planning, stakeholder management and change implementation.

- Data Management (20 credits)
- IT Consultancy (20 credits)
- Managing Enterprise Systems (20 credits)

#### IT project management specialist

This course will examine the most widely utilised approaches to IT project management, including Waterfall and Agile. It will explore the role of a project manager, focus on developing effective and lasting stakeholder relationships, and examine the importance of understanding the influences on project success, from both inside and outside an organisation.

- Environments and Approaches (30 credits)
- Methodologies and Techniques (30 credits)

#### Software engineering specialist

This unit examines the design and development of bespoke secure and scalable software solutions and services for distributed web, mobile and fixed PC and mainframe platforms throughout the development lifecycle.

- Software Engineering Principles and Practices (15 credits)
- Software Testing and Maintenance (15 credits)
- Cloud Computing (15 credits)
- Service Oriented Software Engineering (15 credits)



# **Application** information

This course is designed with professionals in mind, and this is reflected in our entry requirements. All applicants need to be employed with a supporting organisation in order to be eligible.

We welcome applicants who meet the following criteria:

## Entry requirements by subject specialism

#### Software engineer and cyber security

Applicants require at least a second-class honours degree in a computing-related subject. In some circumstances, applicants with a good sub-degree qualification in computing and very substantial work experience in computing or a closely-related area will be accepted.

#### **Data analytics**

Applicants require at least a second-class honours degree in a STEM or numerate subject. In some circumstances, applicants with a good sub-degree qualification and very substantial work experience in computing or a closely related area will be accepted.

#### IT project management and IT strategy

These pathways are open to graduates with at least a second-class honours degree in any subject. In some circumstances, applicants with a good sub-degree qualification and substantial relevant work experience will also be accepted.

#### Applicants without a degree

Those without a degree may be eligible for the course if they have a minimum of three years experience in a relevant industry and the relevant prerequisite knowledge for the specialism. This will be dealt with on a caseby-case basis and is at the discretion of the Course Director.

### Level 2 English and maths requirements

Applicants must be able to evidence Level 2 English and Maths, prior to starting the course. This could be Functional Skills Level 2 or GCSEs grades 9 - 4/A\* - C.

#### How to apply

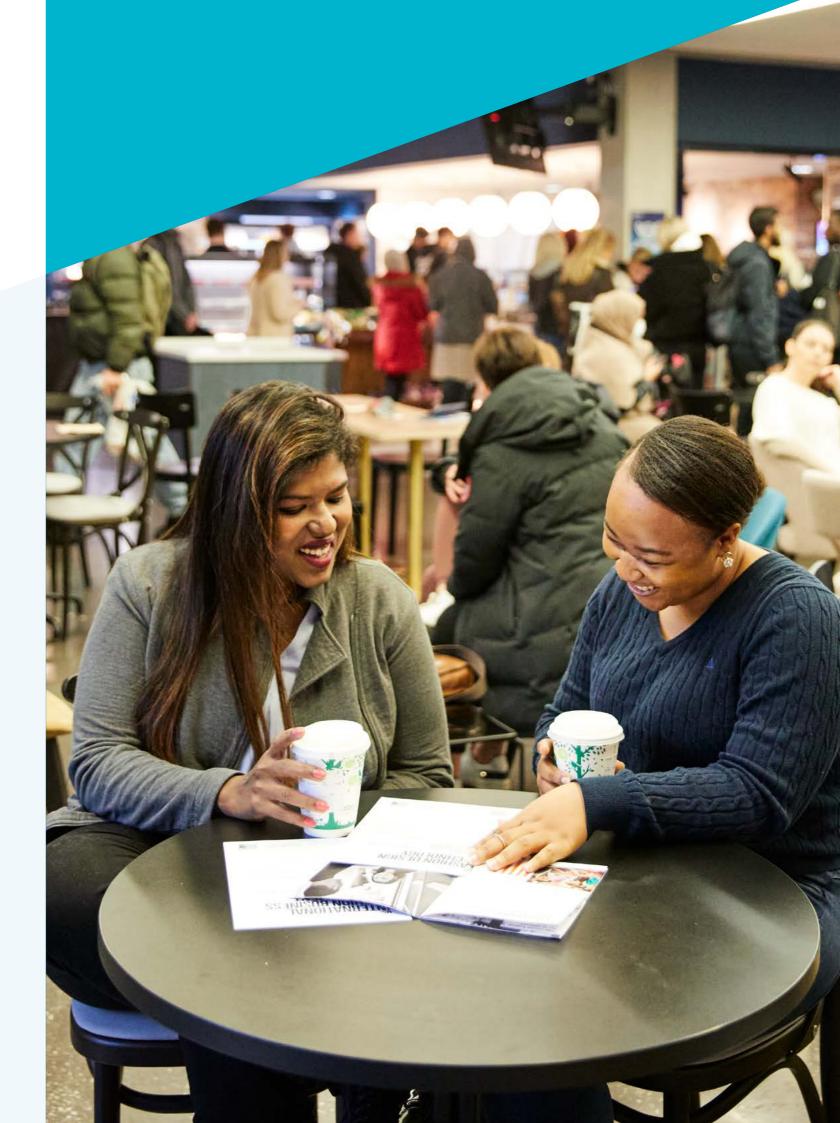
Once an employer has confirmed that they will support their apprentice(s) on the course, we will issue an application pack to interested applicants which includes the necessary forms and guidance. The application form enables us to build up a picture of the candidate, their experience and the knowledge and skill areas they are looking to develop.

We recommend that a CV is included, with a complete work history, as part of the application and that the personal statement is used to highlight management strengths and work achievements.

#### **Employer next steps**

If you would like to discuss how this course could work for your organisation, or if you have any further questions, please contact our dedicated Apprenticeships Team.

E: apprenticeships-employer@mmu.ac.uk T: 0161 247 3720



#### Get in touch

Our growing portfolio of undergraduate and postgraduate apprenticeships include programmes in the following areas:

- digital and technology
- digital marketing, creative design and UX
- health and social care
- leadership, management and HR
- retail

If you think one of our programmes could work for your organisation, please get in touch. We will be happy to provide further information and guide you through the next steps.

#### Contact us:

Apprenticeships team E: apprenticeships-employer@mmu.ac.uk T: 0161 247 3720 W: mmu.ac.uk/apprenticeships

#### **Manuapprentice**

- **f** <u>MMUApprenticeships</u>
- in Degree Apprenticeships at Manchester Metropolitan University
- Degree Apprenticeships at Manchester Met
- 🔘 <u>manmetuni</u>

We are committed to ensuring that all of our materials are accessible. This brochure is available in a range of formats, such as large print, on request via marketing@mmu.ac.uk



