

# **PROGRAMME SPECIFICATION**

Name, title and level of final qualification(s)	MSc Applied Al
	(Level 7)
Name and title of any exit qualification(s)	PG Dip/PG Cert
Is the programme offered with a Foundation Year (if applicable)?	Not applicable
Awarding Body	University of London
Teaching Institution(s)	Birkbeck, University of London
Home Department/other teaching departments	Birkbeck Business School (Home); Computing and Mathematical Sciences
Location of delivery	Central London
Language of delivery and assessment	English
Mode of study, length of study and normal start month	Full-time (1 year) Part-time (2 years) September
Professional, statutory or regulatory body	Not applicable
QAA subject benchmark group(s) Higher Education Credit Framework for England	Not applicable
Birkbeck Course Code	TMSAPPAI_C
HECoS Code	100359 (Artificial Intelligence) 100078 (Business and Management)
Start date of programme	Autumn 2025
Date of programme approval	June 2024
Date of last programme amendment approval	N/A
Valid for academic entry year	2025-26
Programme Director	Sandeep Kapur
Date of last revision to document	23/07/2024

#### **Admissions requirements**

This degree is designed for graduates who are new to Artificial Intelligence but due to the strong quantitative elements involved a second-class honours (minimum 2:2 or higher) in either business, finance, economics, management science, logistics, engineering, computing or mathematics is required.

Applicants from other degrees may be considered on a case-by-case basis provided they can show strong quantitative ability.

#### Course aims

Advances in Artificial Intelligence (AI) are creating opportunities for organisations across all sectors, but also creating risks and disruptions, so that leaders need to understand AI and its implications. Business models and the organisation of everyday work are changing. This programme is designed to provide students with a greater understanding of how AI is reshaping organisations and the world of work, and what organisations need to do to make a success of these changes. It will focus on how data analytics and innovative AI technologies such as generative AI and natural language processing can change the way that organisations work. Upon completion of this course, graduates will have the knowledge and skills that will enable them to work and lead effectively in organisations shaped by AI and create value using AI following graduation.

The specific aims of the course are:

- To meet the growing demand for professionals with expertise in both Al and Management
- To equip students with knowledge and skills of applying AI technologies such as machine learning, deep learning and natural language processing to create value in organisations
- To help students develop a deep understanding of Al concepts, techniques, and applications to optimise business process and enhance decision-making
- To enable students to explore emerging AI trends and technologies, and assess opportunities for various sectors
- To promote ethical considerations in AI development and use, enabling students to assess and advise organisations on the responsible and sustainable use of AI
- To prepare students for leadership roles in Al-driven organisations, where they can identify Al opportunities and drive business transformation

#### **Course structure**

Level	Module Code	Module Title	Credit	Comp Core/ Option	Likely teaching term(s)				
Full-time – 1 year									
Year 1									
7	BUMN176H7	Introduction to Analytics and Business	15	Compulsory	T1				
7	BUMN178H7	Big Data Management	15	Compulsory	T1				
7	SC07006H7	Managing Artificial Intelligence in Business	15	Compulsory	T1				
7	BUMN175H7	Artificial Intelligence, Automation and the Future of Work	15	Compulsory	T2				
7	MOMN011H7	Research Methods in Management	15	Compulsory	T2				
7	BUCI077H7	Applied Machine Learning	15	Compulsory	T2				
7	BUMN179H7	Data Visualization and Communication	15	Compulsory	Т3				

7	BUMN187H7	Project Management (Postgraduate)	15	Compulsory	T3				
7	BUMN184Z7	PG Dissertation Preparation	0	Compulsory					
7	BUMN061D7	MSc Dissertation	60	Core	T2-3				
Part-t	Part-time – 2 years								
Year 1									
7	BUMN176H7	Introduction to Analytics and Business	15	Compulsory	T1				
7	SC07006H7	Managing Artificial Intelligence in Business	15	Compulsory	T1				
7	BUMN175H7	Artificial Intelligence, Automation and the Future of Work	15	Compulsory	T2				
7	BUCI077H7	Applied Machine Learning	15	Compulsory	T2				
7	BUMN179H7	Data Visualization and Communication	15	Compulsory	T3				
Year 2	Year 2								
7	BUMN178H7	Big Data Management	15	Compulsory	T1				
7	MOMN011H7	Research Methods in Management	15	Compulsory	T2				
7	BUMN187H7	Project Management (Postgraduate)	15	Compulsory	T3				
7	BUMN184Z7	PG Dissertation Preparation	0	Compulsory	7				
7	BUMN061D7	MSc Dissertation	60	Core	T2-3				

Core: Module must be taken and passed by student

Compulsory: Module must be taken but can be considered for compensated credit (see CAS

regulations paragraph 24)

Option: Student can choose to take this module

## How you will learn

Formal lectures and seminars are the principal teaching methods that require students to undertake preparatory reading of recommended textbooks and journal articles on relevant aspects of applied artificial intelligence.

There are also lab-based sessions on modelling, data analytics, simulation and other AI exercises using freely available datasets and tools (e.g. Python, Excel, SPSS, Tableau) to enable students to enhance their knowledge, skills and understanding on artificial intelligence techniques.

#### How we will assess you

Formal assessment is a mix of individual coursework, group work and reports, presentations, examinations, and the final project report.

## Learning outcomes (what you can expect to achieve)

'Learning outcomes' indicate what you should be able to know or do at the end of your course. Providing them helps you to understand what your teachers will expect and also the learning requirements upon which you will be assessed.

At the end of this course, you should be able to:

- Develop an understanding of the core AI concepts, theories and methodologies relevant to business applications
- Develop in-depth knowledge and understanding of the role of AI in business processes to improve efficiency, decision-making, and innovation
- Utilise AI tools and techniques to develop strategic solutions to address business challenges
- Critically assess the performance and impact of Al applications in business
- Communicate AI concepts, process, results, and their business implications to both technical and business stakeholders
- Manage Al projects from planning, implementing to execution and assessment of outcomes
- Develop the required knowledge and skills to evaluate the relevance, reliability and validity of datasets
- Analyse the ethical, legal and regulatory implications of deploying AI technologies in business contexts
- Plan, manage, and carry out an independent research project.

# Careers and further study

You will find MSc Applied Artificial Intelligence graduates in the following kinds of roles:

- Al Business Consultant, who advise on introducing and integrating Al technologies to improve business operations and competitiveness
- Business Intelligence Analyst, who apply AI technologies to extract business intelligence and support decision-making
- Al Analyst in different industries: such as Financial Analyst, Healthcare Analyst, Supply Chain Analyst, Marketing Analyst and Customer Insights Analyst
- Project Manager, who plans, executes AI projects, and monitor the progress and success of projects

Birkbeck's MSc Applied Artificial Intelligence students will complete their studies with a set of valuable employability skills, including:

- The ability to work as part of a team
- Data analysis skills to collect, process and analyse data, and use AI techniques to extract business insights
- Research skills
- Communication skills in communicating complex data, models and insights with stakeholders
- Problem-solving skills
- The ability to present yourself and an argument

Birkbeck offers a range of careers support to its students. <u>You can find out more on the careers pages of our website.</u>

#### Academic regulations and course management

Birkbeck's academic regulations are contained in its <u>Common Award Scheme Regulations</u> and Policies published by year of application on the Birkbeck website.

You will have access to a course handbook on Moodle and this will outline how your course is managed, including who to contact if you have any questions about your module or course.

## **Support for your study**

Your learning at Birkbeck is supported by your teaching team and other resources and people in the College there to help you with your study. Birkbeck uses a virtual learning environment called Moodle and each course has a dedicated Moodle page and there are further Moodle sites for each of your modules. This will include your course handbook.

Birkbeck will introduce you to the Library and IT support, how to access materials online, including using Moodle, and provide you with an orientation which includes an online Moodle module to guide you through all of the support available. You will also be allocated a personal tutor and provided with information about learning support offered within your School and by the College.

<u>Please check our website for more information about student support services.</u> This covers the whole of your time as a student with us including learning support and support for your wellbeing.

# Quality and standards at Birkbeck

Birkbeck's courses are subject to our quality assurance procedures. This means that new courses must follow our design principles and meet the requirements of our academic regulations. Each new course or module is subject to a course approval process where the proposal is scrutinised by subject specialists, quality professionals and external representatives to ensure that it will offer an excellent student experience and meet the expectation of regulatory and other professional bodies.

You will be invited to participate in an online survey for each module you take. We take these surveys seriously and they are considered by the course team to develop both modules and the overall courses. Please take the time to complete any surveys you are sent as a student.

We conduct an annual process of reviewing our portfolio of courses which analyses student achievement, equality data and includes an action plan for each department to identify ongoing enhancements to our education, including changes made as a result of student feedback.

Our periodic review process is a regular check (usually every four years) on the courses by department with a specialist team including students.

Each course will have an external examiner associated with it who produces an annual report and any recommendations. Students can read the most recent external examiner reports on the course Moodle pages. Our courses are all subject to Birkbeck Baseline Standards for our Moodle module information. This supports the accessibility of our education including expectations of what information is provided online for students.

The information in this programme specification has been approved by the College's Academic Board and every effort has been made to ensure the accuracy of the information it contains.

Programme specifications are reviewed periodically. If any changes are made to courses, including core and/or compulsory modules, the relevant department is required to provide a revised programme specification. Students will be notified of any changes via Moodle.

Further information about specifications and an archive of programme specifications for the College's courses is available online.

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