



Programme Specification (PG)

Awarding body / institution:	Queen Mary University of London
Teaching institution:	Queen Mary University of London
Name of final award and title:	MSc Blockchain Management and Applications
Name of interim award(s):	Postgraduate Certificate (PgCert), Postgraduate Diploma (PgDip)
Duration of study / period of registration:	1 year
Queen Mary programme code(s):	
QAA Benchmark Group:	Business and Management
FHEQ Level of Award:	Level 7
Programme accredited by:	N/A
Date Programme Specification approved:	
Responsible School / Institute:	School of Business and Management

Schools / Institutes which will also be involved in teaching part of the programme:

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Collaborative institution(s) / organisation(s) involved in delivering the programme:

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Programme outline

The penetration of artificial intelligence and information technologies into business solutions accelerates business innovation processes. Blockchain technology has twisted the role and place of a socio-economic interaction. All these systematic changes require that final users of new business solutions are aware of the full potential and the application of blockchain technology in the rapidly changing business environment. The proposed MSc in Blockchain Management and Applications reflects these fundamental changes and provides students with comprehensive knowledge of how digital technologies affect and will further influence the socio-economic interaction.

The programme provides students with the deep knowledge and insight into the use and application of blockchain technology for new business processes and strategies. Thanks to the holistic learning approach underlying the design of this programme, students will develop an understanding of the flexibility with which blockchain technology can be used and applied in the evolving business environment and the economic system. An important aspect of this utility that the programme will bring out through several of its modules will be blockchain's potential to enhance trust in businesses and wider society, reflecting an authoritative scholarly literature on the decisive contribution of trust to social and economic welfare.

The structure of the programme allows students to gain a deep interdisciplinary knowledge in management, entrepreneurship, economics and information technology with the particular emphasis on blockchain technology and its use and application. A

number of elective modules then allows students to specialise in the specific areas such as quantitative methods, business analytics, international business digitalisation and economic development. The learning outcomes of the programme meet the academic and professional requirements imposed on employees by global and international companies. The graduate will also be equipped with the theoretical and practical knowledge that allows them to start their own businesses.

Aims of the programme

This programme aims to:

- 1) offer an access to a graduate degree for students with different academic backgrounds that include social sciences and humanities but not exclusively in order to meet a diversity of student aspirations;
- 2) provide a highly professional degree that offers students the advanced knowledge in the field of blockchain technology and its use in the real economic and business environment;
- 3) develop critical thinking and analytical skills to evaluate, assess and apply the latest development of blockchain technology into the business solutions and processes;
- 4) develop interdisciplinary skills in the area of economics, management, IT and international business;
- 5) enhance professional skills of how to transfer knowledge into the specific business processes in the evolving ecosystems;
- 6) motivate students to continue their personal development of transferable skills;
- 7) to enhance students employability skills.

What will you be expected to achieve?

Students who successfully complete the programme will be able to:

- 1) independently identify, formulate and solve problems;
- 2) effectively communicate with IT developers and the final users of business solutions;
- 3) understand the concept of cybersecurity and business ethics in the era of business digitalisation;
- 4) conduct independent analytical research;
- 5) enhance skills to present essential scientific and technical analytical research;
- 6) advance qualitative and quantitative communication skills;
- 7) develop programming skills;

Academic Content:

A 1	Critically understand involving a multitude of different disciplines;
A 2	Enhance skills to present essential scientific and technical analytical research;
A 3	Conduct independent research;
A 4	Advance qualitative and quantitative communication skills.

Disciplinary Skills - able to:

B 1	Analyze the strengths and weaknesses of digital technologies as a whole with an emphasis on blockchain applications and applied science data skills
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B 2	Apply the principles of blockchain to real-life cases
B 3	Execute basic blockchain programming in Python
B 4	Evaluate societal and business issues that may be suitable for blockchain and other digital solutions
B 5	Critique the development of blockchain technologies
B 6	Discuss the future of digital technologies, especially blockchain from a variety of perspectives, such as regulatory, legal, and ethical
B 7	Critically understand and apply blockchain technologies in a multitude of different disciplines
B 8	Effectively communicate with IT developers and the final users of business solutions

Attributes:	
C 1	Be able to independently learn new programming techniques as needed
C 2	Be able to create Python programmes that solve practical problems
C 3	Be able to keep pace with the developments in blockchain technology
C 4	Be able to work in a team
C 5	Be able to identify how technological advances can address the evolving ecosystems

How will you learn?

Teaching is by research-oriented staff (complemented where appropriate by visiting lecturers with professional expertise), who will combine professional knowledge of their subject with a critical attitude to its delivery. Students therefore work in a challenging, supportive environment.

Teaching:

Each module has an outline description, giving the aims, expected learning outcomes, assessment methods, outline syllabus and indication of primary reading. This information is available online on the School's Postgraduate webpage.

Students typically have 3 contact hours per week in each module. Within these three hours, each module has its own pattern of lectures, seminars/classes and other activities. Lectures emphasise dissemination of information, explaining the key ideas and determining the sequence and pace of learning. Seminars/classes make for a more active learning experience by facilitating student interaction in discussion, exercises, problem sets, case studies and presentations (as appropriate).

To achieve the learning outcomes of the programme the following pedagogical forms of teaching are to be deployed: constructivist, collaborative, integrative, reflective and inquiry based learning. These forms are to be deployed through a large scale of different teaching and learning activities that include the standard lectures that will be accompanied by the small group seminars, one-to-one tutorials, expert lectures, PC lab, group-work, independent studies, research projects, team group learning.

The learning outcomes - academic content A1-A4 - will be achieved through lectures, tutorials and research projects.

The learning outcomes - disciplinary skills B1- B8 - will be achieved through a series of lectures, case studies, tutorials, PC lab sessions, private studies, group exercises.

The learning outcomes- attributes C1-C5 - will be achieved through lectures, guest lectures, tutorials, research projects, one to one tutorials.

The variety of the proposed learning approaches that will be underpinned by the elements of the fundamental pedagogical forms as we have already emphasised that is: constructivist, collaborative, integrative, reflective and inquiry based learning, will enhance the quality of student experience in this particular highly professional degree. It is necessary to underscore the fact that the knowledge construction and interdisciplinary skills are achieved through the designed structure of the programme that uses three teaching terms.

How will you be assessed?

The learning outcomes that include academic content and disciplinary skills are assessed in each module through the following assessments: coursework, essays, projects, presentations and unseen exams. But there is considerable variation across modules, and some are wholly examined by coursework. The assessment methods are carefully designed for each module and there is the required variations of the used assessment methods to fully capture the essence of the specific modules and the specific learning outcomes. It is important that timely and detailed feedback provided to students is an integral part of the assessment process. Clear guidance on coursework requirements is given emphasizing approaches to coursework of various types and the avoidance of plagiarism. Standard College procedures are followed in the setting and marking of examinations and in the determination of overall results.

How is the programme structured?

Please specify the structure of the programme diets for all variants of the programme (e.g. full-time, part-time - if applicable). The description should be sufficiently detailed to fully define the structure of the diet.

In the week before Semester A teaching begins, the Director of Postgraduate Taught Programmes leads a two day induction session for the cohort entering that year. This covers Compulsive and Elective Modules in each Programme; Choice of Electives; the Documentation Students must Complete; Exams; Coursework and Assessment; the Student Handbook; Security and Safety; Library Resources; IT Resources; SSLC; Careers Advice; Help with English; and Campus Tours.

The programme is full-time delivered across 3 semesters in 1 academic year, with 4 modules per term.

Semester 1: Theoretical and Technical Foundations

Compulsory:

- Introduction to Blockchain and Digital Economy
- Introduction to coding with Python
- Quantitative research methods
- Blockchain Applications and Social Justice

Semester 2: Democracy and Society

Compulsory:

- Cryptocurrency and blockchain programming
- Data Science: Methods and Applications

Two electives from:

- International business in digital age
- Complex networks and innovation
- Experiments for business and analytics
- Applied empirical methods
- Economics for development
- Entrepreneurship for Digital Technologies

Semester 3: Empirical Applications and Topics (after exams, in block format, between mid-June to July)

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Compulsory:

- Business ethics in digital economy
- Blockchain, Innovation and Transparency
- Blockchain regulation and the law
- Blockchain for social impact: democracy and governance

Academic Year of Study

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Introduction to Blockchain and Digital Economy	BUSM189	15	7	Compulsory	1	Semester 1
Introduction to Coding with Python	BUSM190	15	7	Compulsory	1	Semester 1
Quantitative research methods	BUSM014	15	7	Compulsory	1	Semester 1
Blockchain Applications and Social Justice	BUSM191	15	7	Compulsory	1	Semester 1
Cryptocurrency and Blockchain Programming	BUSM192	15	7	Compulsory	1	Semester 2
Data science: Methods and Applications	BUSM193	15	7	Compulsory	1	Semester 2
International Business in Digital Age	BUSM181	15	7	Elective	1	Semester 2
Complex Networks and Innovation	BUSM132	15	7	Elective	1	Semester 2
Experiments for Business and Analytics	BUSM160	15	7	Elective	1	Semester 2
Applied Empirical Methods	BUSM112	15	7	Elective	1	Semester 2
Economics for Development	BUSM073	15	7	Elective	1	Semester 2
Entrepreneurship for Digital Technologies	BUSM202	15	7	Elective	1	Semester 2
Business Ethics in Digital Economy	BUSM194	15	7	Compulsory	1	Semester 3
Blockchain, Innovation and Transparency	BUSM195	15	7	Compulsory	1	Semester 3
Blockchain Regulation and the Law	BUSM196	15	7	Compulsory	1	Semester 3

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Blockchain for Social Impact: Democracy and Governance	BUSM197	15	7	Compulsory	1	Semester 3
Introduction to Mathematics and Statistics for Business	BUSMXXX	0	7	Compulsory	1	Semester 1

What are the entry requirements?

The programme is designed for students with a bachelor's degree (2:1 or above) in the social sciences but it is also open to students with good quantitative skills including engineering, mathematics, etc. Standard English requirements apply. IELTS Academic: 7.0 overall including 6.0 in Writing, and 5.5 in Reading, Listening and Speaking or equivalent exam.

How will the quality of the programme be managed and enhanced? How do we listen to and act on your feedback?

The Student academic performance and the academic quality of the programme are to be closely monitored, managed and enhanced through the following mechanisms:

The Programme Director works closely with the Deputy Dean of Education, the Head of Department and the School of Business and Management Teaching and Learning Committee. As a result, any issues are identified earlier for remedy. For example, issues may be cited by students or the external examiner and meetings held monthly.

In addition, the Programme Director works closely with the School's Student Engagement Team to update students on important aspects concerning quality.

The School of Business and Management has a dedicated member of academic staff to scrutinise the latest and past NSS scores, in addition to module evaluations.

The school regularly sends staff members to attend CABS conferences (Chartered Association of Business School). These conferences bring together colleagues from business schools across the UK and foster an exchange between them on how to manage business schools effectively and how to best teach students about business. These interactions ensure that our students are taught using the most recent methods.

The Staff-Student Liaison Committee (SSLC) provides a formal means of communication and discussion between schools/institutes and its students. The committee consists of student representatives from each year in the school/institute together with appropriate representation from staff within the school/institute. It is designed to respond to the needs of students, as well as act as a forum for discussing programme and module developments. Formally, the SSLC meets twice a semester, with a student representative from each programme. Informally, each student in the programme has access to the Programme Director, who reports to the Director of Postgraduate Taught Programmes.

Each school operates a Learning and Teaching Committee, or equivalent, which advises the School's Associate Dean for Education on all matters relating to the delivery of taught programmes at school level including monitoring the application of relevant QM policies and reviewing all proposals for module and programme approval and amendment before submission to Taught Programmes Board. Student views are incorporated in the committee's work in a number of ways, such as through student membership, or consideration of student surveys.

Curriculum development and delivery are overseen by the Programme Director through the relevant School Teaching Review Group which reports to the School's Teaching and Learning Committee. The School's Teaching Review Groups oversee teaching methods in each module, taking into account student evaluations and comments, means and distributions of examination marks, and external examiner reports. Development of individual teaching is guided through peer review, participation in staff

development courses, the appraisal system and teaching evaluation. Account is also taken of views put forward by Department Meetings and the Student-Staff Liaison Committee as well as external sources (external examiners, and views filtered through the College's International Office).

All schools operate an Annual Programme Review (APR) of their taught undergraduate and postgraduate provision. APR is a continuous process of reflection and action planning which is owned by those responsible for programme delivery. Students' views are considered in this process through analysis of the NSS and module evaluations.

In addition, the director of the programme collaborates with technological companies and industry experts to reflect on the content of degree (1x a year - director of the programme). External examiners provide feedback on the content of the programme and academic performance.

What academic support is available?

The School of Business and Management aims to provide a high quality teaching and learning environment. Teaching will be by research-oriented staff complemented where appropriate by Teaching Fellows, who will combine specialist knowledge of their subject with a critical attitude to its delivery. Students will, accordingly, be working in a challenging, supportive environment.

The induction week before the start of Semester A provides introductory talks on all the services and support mechanisms available within the school and college. The plasma screens within the school also update on timetabling, events and support services within the school. The virtual learning environment (QMplus) has information on the different modules and supervisory advice as well as personalised teaching timetables. Students are also advised on the support services available in the Language and Learning Unit. A module talk is held at the start of the module selection process to enable students make informed choices when selecting their electives.

Postgraduate Programme Director

The School has one academic Programme Director who is able to support students through their studies, if they encounter any difficulties of a personal nature which are having an impact on their studies they can meet with the Director for support.

Academic Advisors

Every student is allocated an Academic Advisor who they can approach should they have any queries or issues related to their academic studies or academic development. Students are expected to see their advisor at least once each semester.

Office Hours

All academics have dedicated office hours published on the website so students may visit them to discuss any aspect of their learning on specific modules.

Programme-specific rules and facts

N/A

How inclusive is the programme for all students, including those with disabilities?

Queen Mary has a central Disability and Dyslexia Service (DDS) that offers support for all students with disabilities, specific learning difficulties and mental health issues. The DDS supports all Queen Mary students: full-time, part-time, undergraduate, postgraduate, UK and international at all campuses and all sites.

Students can access advice, guidance and support in the following areas:

- Finding out if you have a specific learning difficulty like dyslexia

- Applying for funding through the Disabled Students' Allowance (DSA)
- Arranging DSA assessments of need
- Special arrangements in examinations
- Accessing loaned equipment (e.g. digital recorders)
- Specialist one-to-one "study skills" tuition
- Ensuring access to module materials in alternative formats (e.g. Braille)
- Providing educational support workers (e.g. note-takers, readers, library assistants)
- Mentoring support for students with mental health issues and conditions on the autistic spectrum.

All reading lists have been reviewed to coincide with the new blended learning environment in response to the pandemic and the necessity for electronic versions of module texts, with all staff encouraged to use the space for Talis / Reading Lists Online within the updated QMPlus module sites.

QMPlus modules sites have been significantly developed during 2020/21, to be re-purposed and further developed in 2021/22 and beyond, including significant video and audio materials on all modules for asynchronous learning, supplemented by video recordings of essential material also made available post-live sessions. This practice shall continue on return to in-person teaching via further development of QMPlus modules sites, linked to QReview, and with a move towards the standard use of SensusAccess before uploading QMPlus materials. Due allowance will be made for students to record seminars, if necessary, and seminar discussions and classroom arrangement will furthermore take into account any special arrangements. Students requiring additional time for completion of assessments i.e. in-class tests and presentations as recommended by DDS will have the adjustments made by the module administrator. In addition, marking of assessments will take into consideration any neurodiversity i.e. not penalising sentence structure or grammar.

Links with employers, placement opportunities and transferable skills

Graduates from this programme will have developed a range of cognitive and practical skills together which will be applicable to be different context beyond academia.

The School works closely with the Careers Service to locate possible work placements/ internships and to prepare students for the recruitment process (e.g assistance in creating effective CVs to reach potential employers, interview skills).

The qualities and skills a graduate from this programme might be expected to have include a range of cognitive and intellectual skills together with techniques specific to business and management, and relevant personal and interpersonal skills. These include:

- The ability to think critically and creatively: organise thoughts, analyse, synthesise and critically appraise. This includes the capability to identify assumptions, evaluate statements in terms of evidence, detect false logic or reasoning, identify implicit values, define terms adequately and generalise appropriately
- The ability to conduct research into business and management issues either individually or as a part of a team through research design, data collection, analysis, synthesis and reporting
- Effective performance within team environments and the ability to recognise and utilise individuals' contributions in group processes and to negotiate and persuade or influence others; team selection, delegation, development and management
- Ability to recognise and address ethical dilemmas and corporate social responsibility issues, applying ethical and organisational values to situations and choices.

Programme Specification Approval

Person completing Programme Specification:

Person responsible for management of programme:

Date Programme Specification produced / amended by
School / Institute Education Committee:

Programme Title: MSc Blockchain Management and Applications

**Date Programme Specification approved by Taught
Programmes Board:**

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