

# MSc in Logistics, Data Analytics and Supply Chain Management Programme Specification

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Academic Year: 2024/25

Degree Awarding Body: The University of Bradford

Target Degree Award: Master of Science (MSc) Logistics, Data Analytics and Supply Chain

Management [Framework for Higher Education Qualifications (FHEQ) Level 7]

Interim/exit awards: Postgraduate Diploma (PGD) [FHEQ Level 7]

Postgraduate Certificate (PGC) [FHEQ Level 7]

**Programme Admission:** September, January

Programme Modes of Study: 12 months full-time (September start)

15 months full-time (January start)24 months part-time (September start)27 months part-time (January start)

This programme is accredited by The Chartered Institute of Logistics and Transport (CILT) and The Chartered Institute of Procurement and Supply (CIPS). It is delivered within the "triple crown" AACSB, AMBA and EQUIS accredited University of Bradford School of Management.

Please note: This programme specification has been published in advance of the academic year to which it applies. The curriculum may change, subject to the University's programme monitoring and review processes. Every effort has been made to ensure that the information is accurate at the time of publication, but changes may occur given the interval between publishing and commencement of teaching. Any change which impacts the terms and conditions of an applicant's offer will be communicated to them. Upon commencement of the programme, students will receive further detail about their course and any minor changes will be discussed and/or communicated at this point.

#### Minor Modification Schedule

- 1. December 2020: Specification made accessible
- 2. April 2021: Specification reformatted and further accessibility improvements. Added accredited programme Study Abroad section
- 3. June 2021: Minor amends for 2021/22
- 4. April 2022: Minor change removal of 10 credit core module

November 2022: Minor amends for 2022/23 published

5. March 2023 - Options added

#### Introduction

The Master's in Logistics, Data Analytics and Supply Chain Management is designed with input from leading logistics and supply chain professionals to equip students with the necessary knowledge and appropriate data analytics techniques to operate as effective managers within this field who contribute to business and society. This programme is aligned with the expertise within the Business Analytics, Circular Economy and Entrepreneurship Department. This programme is designed to provide the student with a thorough multidisciplinary grounding of logistics, data analytics and supply chain management, underpinned by the main concepts and theories. This programme is supported by experienced academics renowned for their expertise in the field who will

provide significant insights into key areas of business analytics, supply chain and operations management.

This programme serves also as preparation for further study or an academic career in logistics, data analytics and supply chain management. The aim of this programme is to promote a critical understanding of emerging themes within the logistics and supply chain, equip students with data analytics techniques within this field and how companies can protect themselves against risk and uncertainty.

The application of theories and tools to real-world practical problems should enable students to use the information gained from logistics and company data sources in making optimal management decisions and choices. The programme has been designed with reference to relevant professional standard frameworks including the Chartered Institute of Logistics and Transport (CILT) and The Chartered Institute of Procurement and Supply (CIPS).

The programme cultivates the ethos of an engaging and inclusive learning community that is responsive to different learning styles and allows each student to develop to their full potential. Throughout the programme, there is strong emphasis on the practical application of specialist knowledge and data analytics skills. Such practical skills and critical faculties will enable the student to apply the knowledge and understanding gained at an early stage in their careers in order to make a meaningful contribution to the organisations they will work for.

In accordance with the University's mission 'Making Knowledge Work', the School of Management aims to provide programmes that educate the student as a manager and business specialist, and thus improve the quality of management as a profession. The aim is to produce fully rounded managers with an emphasis on logistics, data analytics and supply chain management by combining theory and practice with a detailed treatment of other subjects concerned with the management of organisations.

The programme contains an international dimension. On graduation from this programme, students will have developed a portfolio of work that demonstrates specialist knowledge in logistics, data analytics and supply chain management and employability and will thus be well-placed to access a range of career opportunities in either nationally or internationally. Therefore, graduates from this programme will be able to contribute to business and society as a whole whilst applying the highest professional standards and will be capable of identifying their own professional development requirements. Equipped with the skills, knowledge and critical faculties with a special focus on developing data analytics techniques required to operate and thrive in the contemporary business environment, these graduates will be ideally placed to pursue a management career in a wide range of business and commerce environments.

The Master's in Logistics, Data Analytics and Supply Chain Management is a specialist level career entry programme: type 1 under the Quality Assurance Agency for Higher Education's "Benchmarks for Master's Degrees in Business and Management"

#### **Programme Aims**

The programme is intended to:

- A1. Develop management professionals with sound data analytics methods to improve business decision-making underpinned by a theoretical understanding of organisational activities and the complexities that arise in the management of these as a consequence of the interrelationships that exist between them.
- A2. Develop competence in a range of analytical and personal skills necessary to enable the student to make an effective and immediate contribution to the performance of an organisation in a range of functional areas.
- A3. Develop a critical awareness of the current issues affecting the discipline and the knowledge, skills and expertise to assist organisations in achieving a sustainable business future.
- A4. Help those with knowledge and expertise in other disciplines to make the transition to the business and management world and assist them in developing their existing skills and knowledge within the business and management context.
- A5. Provide the knowledge and skills to assist the student to take an active role in their future development as professional managers in a dynamic and changing global environment and to contribute effectively to their chosen profession.

## Programme Learning Outcomes

To be eligible for the FHEQ Level 7 Postgraduate Certificate, students will be able to:

- 1. Explain and critically apply theories on emerging logistics, data analytics and supply chain management issues, supply chain analytics and technology management, freight transport, procurement and quality management systems.
- 2. Integrate theories on managing supply chain operations and organisations (stemming from logistics and supply chain management frameworks) within the changing context of global business management
- **3.** Understand how logistics, data analytics and supply chain management are interrelated to contemporary societal challenges.

## Additionally, to be eligible for the FHEQ Level 7 Postgraduate Diploma, students will be able to:

- 4. Differentiate between the different approaches to organisation, management, creating business knowledge and the allocation of resources that influence logistics, supply chain management strategies for a range of companies including multinational enterprises.
- 5. Evaluate the business efficiency and effectiveness of logistics, data analytics and supply chain issues that managers face in organisations notwithstanding the need to cope constructively with societal challenges and global uncertainty.

- **6.** Exhibit the capacity to think critically, creatively and comparatively about responsible management behaviours and sustainable organisational processes in relation to logistics and supply chain management.
- 7. Apply appropriate data analytics techniques and concepts towards the examination of empirical logistics and supply chain management issues leading to well-considered and plausible conclusions.
- **8.** Plan and execute a range of assignments, including essays, reports, presentations and reflective pieces, in which style, scope and depth are appropriate to task, purpose, and audience.

## Additionally, to be eligible for the FHEQ Level 7 Degree award of Master, students will be able to:

- **9.** Demonstrate initiative and independence in systematic academic inquiry, using relevant techniques and technologies to gather, evaluate and manage evidence, data and information from valid, appropriate sources.
- 10. Exhibit data analytics, research and enquiry skills using library-based and online data sets, corporate sources and reports and produce an original, substantial and complex project (with appropriate ethical approval) within a specified timeframe.
- 11. Exhibit concise, pertinent and well-structured written communications, using IT media and applications (as appropriate) to support the preparation and presentation of findings.
- 12. Recognise and be able to reflect critically one one's own positionality, values and epistemological orientation in one's own academic work.

## **Learning and Teaching Strategy**

Generally, this programme aims at integrating applied and theoretical knowledge with assessment processes that test both knowledge of the discipline and understanding of its application and limitations. The learning and teaching strategy put significant emphasis on the development of analytical, practical and interpersonal skills. Throughout the programme, students will be actively engaged in a diverse range of learning activities designed to develop your capacities for thoughtful analysis and reflective practice.

Learning strategies have been developed to be inclusive of those with particular needs, adopting small group seminars and electronic support mechanisms.

Teaching on the programme will take different formats and will be directed, supported and reinforced through a combination of formal lectures, staff/student led group tasks and discussions, simulations, personal research and guided self-study, tutorials, seminars and directed reading. Sessions may be delivered weekly or in blocks. Small Group sessions will use case studies and simulations with formative feedback given in class. Students will be guided to suitable primary and secondary data sources and be required to conduct statistical analyses (e.g. chi-square test, t-test, ANOVA, and regression analysis), research

and presentation exercises. These activities will all be further supported through face-to-face and online learning environment.

Methods of assessment are varied and linked to learning requirements. They may include essays, coursework assignments and case studies.

In addition to learning within modules, personal academic tutors will support individual academic development, by helping in analysing learning needs, developing appropriate learning strategies that enable students to reflect on their own progress. Building many and varied opportunities to engage with and learn from each other into the programme is integral to fostering an inclusive learning environment.

Further, there are many opportunities to take part in exciting extra-curricular activities. Students on the programme will be taken outside the University to visit companies' sites to understand how they operate in logistics and manage their supply chains to maximise supply chain surplus. This provides great opportunities for students to link theories and concepts learned during lectures with real-world operations. The Faculty's own Career Booster professional development programme will offer opportunities to advance intellectual and employability skills (e.g. critical thinking, communication, team work, problem solving). The School of Management is a very dynamic with a diverse and active Faculty and wider University. It arranges numerous events and opportunities each semester beyond the taught modules to engage with not only academic but also policy and practitioner events and issues. These include invited speakers, seminars, workshops, activities and conferences. University wide there is support available for students for academic skills, information literacy and programming language learning.

## **Assessment Strategy**

The assessment strategy for this programme is based on principles of constructive alignment, diversity and inclusion. It employs a well-developed range of formative and summative assessments tasks which are designed to help students to develop and demonstrate knowledge and understanding as well as a skill set in accordance with the learning outcomes for the programme overall and for specific modules. Our overall strategy aims to develop ability to succeed in a global context, and to assist individuals to take effective roles within them in a balanced and diverse range of assessment tasks.

The formative assessment strategy includes monitoring student's learning throughout each semester, using a range of class and seminar activities, personal tutors, project supervision and a variety of coursework, including essays, reflective notes, literature reviews, oral or audio-visual presentations, and group and individual tasks for which formative feedback is given.

The programme is summatively assessed by a mixture of assessed coursework, and applied coursework requiring the use of specialist computer software used on this programme as well as case studies, group projects and multimedia presentations.

Assessment is integrated with learning and teaching to support and demonstrate achievement of the learning outcomes for individual modules and the programme as a whole. Learning outcomes 1, 2 and 3 are focused on knowledge. They are assessed by a mixture of individual pieces of coursework and group work, including [multimedia] presentations. Learning outcomes 4, 5, 6, 7 and 8 are focused on subject specific skills aimed to equip the student with the practical ability to directly contribute to a logistics and supply chain management role. They are assessed by a mixture of individual pieces of coursework and group work, including [multimedia] presentations. Learning Outcomes 9, 10, 11 and 12 are focused on the transferable skills that are so important to employability, such as communication, practical creativity and self-awareness. They are assessed by a mixture of individual coursework, group coursework, individual and group presentations (including multi-media), and individual coursework.

#### **Programme Structure**

A programme of study at Master's level in the UK is worth 180 credits at FHEQ Level 7.

Table 1: Full-time Study, Academic Journey

September Start	Study Period	January Start
Semester 1 modules, coursework submissions and exams.	Autumn Semester 1	/
Semester 2 modules and coursework submissions. Dissertation supervisor allocated. Work begins on Dissertation.	Spring Semester 2	Semester 2 modules and coursework submissions.
Summer School module. Exams. Continuation of Dissertation.	Summer "Semester 3"	Summer School module. Exams. Dissertation supervisor allocated. Work begins on Dissertation.
Submit dissertation and aim to graduate in December	Autumn Semester 1	Semester 1 modules, coursework submissions and exams.
/	Spring Semester 2	Submit dissertation and aim to graduate in July

The model part-time student journey is based on a half-day attendance per week per module over 2 years, with the following planned sequence (depending on timetabling and subject to the University's programme approval, monitoring, and review procedures):

Table 2: Part-time Study September intake Journey

Programme Structure	Programme Structure	
Year 1, Semester 1	2 Core Modules	
Year 1, Semester 2/3	1 Core Module, 1 Option Module	
Year 2, Semester 1	2 Core Modules	
Year 2, Semester 2/3	1 Core Module, 1 Option Module	
Year 2, full year September to September	Dissertation	

Table 3: Part-time Study January intake Journey

Programme Structure	Programme Structure	
Year 1, Semester 2/3	1 Core Module, 1 Option Module	
Year 1, Semester 1	2 Core Modules	
Year 2, Semester 2/3	1 Core Module, 1 Option Module	
Year 2, full year March to March	Dissertation	

#### **Study Abroad**

This programme is not designed to include a study abroad component. However, students are welcome to explore available opportunities for a Study Abroad Semester that may be viable for them via our International Opportunities team.

This option can be available ONLY if the modules offered by the host institution allow the student to meet the learning outcomes of the Bradford Programme during Semester 1 OR Semester 2 AND if such study abroad will not affect the accreditation of the final award.

Any student wishing to study abroad for a semester should first contact the International Opportunities Team to explore the opportunities and funding in place and, secondly, the Faculty Exchange Coordinator to check if the available options and relevant modules are in line with the University requirements. Following these checks, the International Opportunities Team and the Faculty Exchange Coordinator will liaise with the relevant Programme Leader to validate the modules and the semester exchange.

The semester exchange requires students to study only modules suitable to the Bradford programme when abroad. Therefore, all modules selected for the exchange will have to be mapped to the Bradford programme learning outcomes and be approved by the Programme Leader and the Director of Studies in Bradford in advance of the exchange.

During the exchange, if the student needs to change the modules, this can only be done after approval of the Programme Leader and Director of Programmes.

If the student fails a module abroad, the student must immediately inform the International Opportunities Team and the Faculty Exchange Coordinator and explore the possibility of re-taking any exams at the host institution.

During the exchange, students will have support from the relevant University services. All credit successfully obtained whilst on study abroad semester will count towards the student's final degree. Our International Opportunities team can advise students about the available funding to support their study or work experience abroad.

The list of exchange partners and network of Universities available for Study Abroad Semester, as well as further information about international opportunities can be found online at <a href="https://www.bradford.ac.uk/exchanges/current-students">www.bradford.ac.uk/exchanges/current-students</a>

Please note: Some institutions are only available to undergraduate or postgraduate students. Any potential exchange is dependent on student eligibility, student finance, and the appropriate modules required to fulfil the requirements of the programme being available at either institution.

#### Curriculum

The Master's degree in Logistics, Data Analytics and Supply Chain Management is built on a foundation of general Logistics, Supply Chain Management and Business Data Analytic modules. This programme also provides the opportunity for granular personalised learning and specialism where students can take one option per semester.

Please note: The curriculum may change, subject to availability and the University's programme approval, monitoring and review processes.

## September to January (Semester 1)

In the autumn semester at Bradford, students will take 50 core credits: Emerging Issues in Logistics and Supply Chain Management, Business Data Analytics, and Operations Management. Students will additionally select one 10-credit optional module.

#### Semester 1 Modules (PGC/PGD)

Study Period	Code	Title	Credit	Level
1 Core	OIM7502-B	Business Data Analytics	20	FHEQ 7
1 Core	OIM7501-B	Emerging Issues in Logistics and Supply Chain Management	20	FHEQ 7
1 Core	OIM7503-A	Operations Management	10	FHEQ 7
1 Option	OIM7513-A	Blockchain in Business Digitalisation	10	FHEQ 7
1 Option	HRM7503-A	Developing Skills for Business Leadership	10	FHEQ 7
1 Option	OIM7515-A	Humanitarian Logistics	10	FHEQ 7

#### January to September (Semester 2)

In the spring semester at Bradford, students will take 50 core credits: Supply Chain Analytics and Technology Management, Procurement Fundamentals and Quality Systems, and Freight Transport. All students may attend the International Master's Summer School in April by selecting the SIB7507-Z module, potentially including those students who are otherwise studying Semester 2 abroad (see **Study Abroad** section for more details). Students will additionally select one 10-credit optional module or choose to register for the assessed version of the Summer School.

#### Semester 2 Modules (PGC/PGD)

Study Period	Code	Title	Credit	Level
2 Core	OIM7512-A	Freight Transport	10	FHEQ 7
2 Core	OIM7505-B	Procurement Fundamentals and Quality Systems	20	FHEQ 7
2 Core	OIM7504-B	Supply Chain Analytics and Technology Management	20	FHEQ 7
2 Option	SIB7505-A	Corporate Social Responsibility	10	FHEQ 7
2 Option	EAE7503-A	Technopreneurship and Innovation	10	FHEQ 7
2 Option	OIM7516-A	Digital Twin and Simulation	10	FHEQ 7
2 Option	SIB7506-A	International Master's Summer School	10	FHEQ 7
2 Option	SIB7507-Z	International Master's Summer School (attendance) i	0	FHEQ 7

i: Module runs after the end of Semester 2. Barred combination: select either module not both.

Students will be eligible to exit after a single semester with the award of Postgraduate Certificate if they have successfully completed 60 credits and achieved the award learning outcomes.

Students will be eligible to exit after two semesters with the award of Postgraduate Diploma if they have successfully completed at least 120 credits and achieved the award learning outcomes.

Programme progression regulations between the taught and dissertation stages apply to this programme. See the **Assessment Regulations** section for details.

#### Dissertation

The dissertation is a core capstone module assessing all learning outcomes. The dissertation involves carrying out an extended piece of written work involving an original and in-depth investigation of a programme-specific issue.

Full-time students who commence the programme in September will submit their dissertation in following September and students that commence the programme in January will submit the following academic year in March. Students that study part-time will typically commence and submit the Dissertation during the second year of study.

Study PatternCodeTitleCreditLevelBDA (submit September)MAL7501-EDissertation60FHEQ 7BDB (submit March)MAL7501-EDissertation60FHEQ 7

Table 4: Dissertation Stage (MSc)

Students will be eligible for the award of Degree of Master if they have successfully completed at least 180 credits and achieved the award learning outcomes.

#### **Assessment Regulations**

This Programme conforms to the standard University Postgraduate Assessment Regulations which are available at the link: <a href="https://www.bradford.ac.uk/regulations/">https://www.bradford.ac.uk/regulations/</a>

However, there is one waiver exception to these regulations that applies: On completion of the taught element of the programme and at the Interim Exam Board, a student who has 50 credits or more requiring supplementary assessment will not be permitted to proceed to the dissertation stage of the programme. The decision to allow progression will only be reconsidered at the Supplementary Exam Board.

## **Admission Requirements**

We take into consideration a number of factors when assessing your application. It's not just about your grades; we take the time to understand your personal circumstances and make decisions based on your potential to thrive at university and beyond.

Candidates for the MSc Logistics Data Analytics and Supply Chain Management will normally have a first undergraduate degree with honours (2:2 classification or above, or equivalent) in business and management, engineering or a related discipline from an approved higher education institution. Equivalent professional qualifications will also be eligible if supported with appropriate practical experience in this field.

As the programme is taught in English, all applicants are required to have GCSE Grade 4 (national grade C) or above in English Language, or equivalent. For international students, the standard English language requirements for the University are listed at <a href="https://www.bradford.ac.uk/international/entry-requirements/">https://www.bradford.ac.uk/international/entry-requirements/</a>

Exceptionally, holders of a first degree studied in English obtained within the last 2 years will be exempt from these English language requirements. Further guidance for international students can be found on the webpages at: https://www.bradford.ac.uk/international/country/

### Access and Recognition of Prior Learning

Applications are welcome from returners to study (those aged 26+ at the start of the programme), students with non-traditional qualifications, and/or students with significant relevant experience. If applicants have prior certificated learning or professional experience which may be equivalent to parts of this programme, the University has procedures to evaluate and recognise this learning in order to provide applicants with exemptions from specified modules or parts of the programme.

The University of Bradford has always welcomed applications from disabled students. To discuss adjustments or to find out more about support and access, you may wish to contact the Disability Service before you apply: <a href="https://www.bradford.ac.uk/disability/before">www.bradford.ac.uk/disability/before</a>

Please note: These requirements are correct for the contemporary recruitment cycle and may be different when you are reading this document. The current requirements are published at the course webpage: <a href="https://www.bradford.ac.uk/courses/pg/logistics-data-analytics-supply-chain-management/">https://www.bradford.ac.uk/courses/pg/logistics-data-analytics-supply-chain-management/</a>