

# **Programme Specification**

# Supply Chain Management and Logistics (2020-21)

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

Awarding Institution University of Southampton
Teaching Institution University of Southampton

Mode of Study Full-time
Duration in years 1

Final award Master of Science (MSc)

Name of Award Supply Chain Management and Logistics

Interim Exit awards Postgraduate Certificate
Postgraduate Diploma

FHEQ level of final award L

UCAS code

Programme Code 5505

QAA Subject Benchmark or

other external reference

Programme Lead Pathway Lead Level 7

Master's Degrees In Business And Management 2007

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# **Programme Overview**

### Brief outline of the programme

This programme aims to train future managers and researchers from a diversity of backgrounds with an academically challenging exposure to state-of-the-art mathematical methods of supply chain and logistics management. The range of subjects reflect the expertise and areas of research of the academic staff, and covers (but is not limited to) operations management, optimisation, simulation, risk management, and data mining methods.

The programme is part of the Centre for Operational Research, Management Sciences and Information Systems (CORMSIS), which is a world-leading Operational Research/Management Science group. It has consistently among the top 50 in the world for Statistics and Operations Research (QS World Rankings 2019 and 2020). Furthermore, the programme has the special feature of two types of project. The external project is competitive and may be undertaken in a wide variety of organisations, offering excellent career-building experiences. The internal project offers the opportunity to work closely with the top academics in the area.

The programme is accredited by the Association to Advance Collegiate Schools of Business (AACSB), which is an internationally recognised award of excellence in business education.

Your contact hours will vary depending on your module/option choices. Full information about contact hours is provided in individual module profiles.

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### Learning and teaching

A mixture of methods is used, including lectures, seminars, tutorials, group work, computer labs, and supervised research.

#### Assessment

Your understanding of the subject matter and your ability to utilise it will be tested through multiple methods of assessment including coursework, examinations, and dissertation.

# Special Features of the programme

In addition to the scheduled compulsory and optional modules of the programme, students benefit from access to industrial managers' insight and support via CORMSIS (the University's Centre for Operational Research, Management Science, and Information Systems). This includes attendance of practitioner talks organised at the University and the opportunity to attend relevant job fairs in analytics. Details of these specific additional features of the programme vary from year on year.

An exciting feature of this programme is that students on this programme have the opportunity to compete for writing their dissertation in the context of a project with an external organisation such as a company or public sector organisation. The competition is based on the average marks obtained in all the modules taken in the first semester as well as the performance in interviews with sponsor organisations.

These projects will be undertaken during the summer months after completion of the taught component. The set of available projects is typically announced during the second semester, eligible students will be invited to shortlist their preferred projects. After a successful interview with a sponsor organisation, a student will have then the opportunity to undertake research around a specific problem encountered in this organisation in close collaboration with this organisation and under supervision of an academic of the University, and subsequently write the dissertation on this research project and its outcome.

All students will have the opportunity to apply for research-led projects proposed by top academics in the area, propose their own research topic and work on their chosen topic under the direction of an academic supervisor, or organise their own placement in consultation with the University.

**Please note:** As a research-led University, we undertake a continuous review of our programmes to ensure quality enhancement and to manage our resources. As a result, this programme may be revised during a student's period of registration; however, any revision will be balanced against the requirement that the student should receive the educational service expected. Please read our <u>Disclaimer</u> to see why, when and how changes may be made to a student's programme.

Programmes and major changes to programmes are approved through the University's <u>programme validation process</u> which is described in the University's <u>Quality handbook</u>.

## **Educational Aims of the Programme**

The aims of the programme are to:

- Equip you in the quantitative and qualitative methods of supply chain management and logistics, enabling you to utilise the methods in practice and to contribute to future developments in the area;
- Provide you with the skills required for both designing and operating supply chains and logistics systems;
- Present you the opportunity to develop specialist knowledge and understanding in a chosen area of the supply chain management and logistics, while giving you a broader view of the subject matter with an interdisciplinary / multidisciplinary perspective;
- Support you to develop analytical and critical thinking, and fuse your qualitative and quantitative perspectives of supply chains and logistics systems;
- Enable you to undertake a substantial research project during your year of study, giving you the opportunity to learn as you apply.

# **Programme Learning Outcomes**

### **Knowledge and Understanding**

On successful completion of this programme you will have knowledge and understanding of:

- A1. How to design and operate efficient, sustainable, and environment-friendly supply chains and logistics systems.
- A2. The current and possible future trends and issues in supply chain management and logistics.
- A3. The international standards related to the best contemporary practice of supply chain and logistics management.
- A4. Modelling and solving computational models of supply chains and logistics systems.
- A5. The application areas, benefits, and shortcomings of quantitative methods.
- A6. In-depth knowledge of a particular research topic within the subject area.

### **Teaching and Learning Methods**

You will gain understanding and knowledge of Supply Chain Management and Logistics through a mixture of methods, including lectures, seminars, tutorials, group work, computer labs, and supervised research.

#### **Assessment Methods**

Your understanding of the subject matter and your ability to utilise it will be tested through multiple methods of assessment including examinations, coursework, and dissertation.

### Subject Specific Intellectual and Research Skills

On successful completion of this programme you will be able to:

- B1. Perform in-depth analyses of supply chains and logistics systems, identifying general and case specific key performance indicators;
- B2. Critically analyse, interpret, organise, and present logistics data;
- B3. Apply sophisticated quantitative and qualitative techniques to solve logistics problems by selecting appropriate methods of modelling and modifying the models as required;
- B4. Derive managerial insights through the results of analyses and communicate them to a non-technical audience.

### **Teaching and Learning Methods**

Teaching and Learning Methods to be utilised are lectures, seminars, tutorials, group work, computer Labs, and supervised research.

#### **Assessment Methods**

Assessment methods to be employed are examinations, coursework, and dissertation.

### Transferable and Generic Skills

On successful completion of this programme you will be able to:

- C1. Recognise, define, analyse and solve problems;
- C2. Effectively use Information and Communications Technology;
- C3. Demonstrate decision making, initiative taking, self-motivation and direction, personal responsibility;
- C4. Demonstrate awareness of your present knowledge limitations, and readiness to gain new knowledge through further study and teamwork in your professional field;
- C5. Safely and effectively plan, manage and execute projects in a timely manner.

#### **Teaching and Learning Methods**

Teaching and Learning Methods to be utilised are lectures, seminars, tutorials, group work, computer labs, and supervised research.

#### **Assessment Methods**

Assessment methods to be employed are examinations, coursework, and dissertation.

You should be aware that as the PG Certificate or PG Diploma is based on the attainment of credit rather than on passing specific modules you will be able to demonstrate the specific learning outcomes relating to the modules which you have passed.

# **Programme Structure**

The programme structure table is below:

Information about pre and co-requisites is included in individual module profiles.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

## **Pathway**

Part I

**Typical Course Content** 

The course is centred on how to make decisions about the organisation and management of the movement, transformation, and storage of flows of goods, people, data, and money as to meet certain performance criteria across a supply chain. Each module focuses on specific areas of required knowledge or skills related to this, including e.g. on the role and relationship management between various divisions in firm or with suppliers and customers, or on the mathematical modelling of strategic choice or the optimisation of

operational day-to-day decisions, or on computer-related knowledge and skills for converting data into useful information for decision support.

Within the programme students can exercise module choice, including opportunities to take Curriculum Innovation modules. Student can thus tailor the programme towards their own specific areas of interest within the supply chain management and logistics area.

Information about pre and co-requisites is included in individual module profiles.

### Programme Details

The understanding of relevant scientific principles, modelling techniques, human-related elements, or computer software is gained by their application in various illustrative examples and case studies drawn from the research expertise of the lecturers and selected textbook material.

Student's active participation in class discussion, group work, tutorials and computer labs during the year is an essential element of the learning experience.

Being able to communicate, work together with various people, and time-manage your work are essential elements in most future professional career paths; hence the attention to group work and writing group coursework reports in many of the modules in this programme.

The majority of compulsory modules on the programme complement the coursework assessment strategy with an end of semester exam so that individual critical understanding and application of the learned material can be tested. In accordance to the specific aims and objectives, the exam carries more weight in some of the modules.

The dissertation and related project will enable students to gain an in-depth understanding in a chosen area and hone their research and general transferable skills. Students who do not wish to undertake their project with an industrial partner may choose to base their dissertation on their own research topic under supervision of an academic supervisor.

You are expected to study the programme over one year full-time. The taught component consists of 30 study weeks divided into two semesters. The required workload of the taught component is 60 ECTS (120 CATS), which should be evenly distributed between the two semesters. In the first semester, you will select either two modules with 3.75 ECTS (7.5 CATS) or a single module with 7.5 ECTS (15 CATS) among the optional modules listed.

In the second semesters, you will select either four modules with 3.75 ECTS (7.5 CATS) or a single module with 7.5 ECTS (15 CATS) and two modules with 3.75 ECTS (7.5 CATS) among the option modules listed. Upon completing the taught component of the programme, you will undertake a three month period of supervised research for a Master's dissertation, which accounts for another 30 ECTS (60 CATS). The structure of the programme is set out below.

Part I Compulsory (must take) Semester 1

Code	Module Title	ECTS	Туре
MANG6313	Computational Methods for Logistics	3.75	Compulsory
MANG6046	Optimisation and Decision Modelling	7.5	Compulsory
MANG6315	Principles of Supply Chain	3.75	Compulsory
	Management		
MANG6003	Quantitative Methods	7.5	Compulsory

### Part I Compulsory (must take) Semester 2

Code	Module Title	ECTS	Туре
MANG6314	Integrated Logistics	7.5	Compulsory
MANG6316	Purchasing and Supply Management	7.5	Compulsory

MANG6095 Dissertation supervision starts in Semester 2 and should be submitted in September.

Code	Module Title	ECTS	Type
MANG6095	Dissertation	30	Core

#### Part I Optional Semester 1

Choose 15 CATS/7.5 ECTS Options in Semester 1.

All option modules are offered subject to availability and timetabling constraints.

Code	Module Title	ECTS	Туре
MANG6049	Problem Structuring	3.75	Optional
MANG6122	Simulation	7.5	Optional
MANG6068	The Management of Corporate Security	3.75	Optional

### Part I Optional Semester 2

Choose 30 CATS/15 ECTS in Semester 2.

All option modules are offered subject to availability and timetabling constraints.

Code	Module Title	ECTS	Туре
MANG6054	Credit Scoring and Data Mining	3.75	Optional
MATH6011	Forecasting	3.75	Optional
MANG6100	Game Theory for Business	3.75	Optional
MATH6005	Introduction to Python	3.75	Optional
MANG6143	Project Risk Management	7.5	Optional
MANG6134	Risk Taking and Decision Making	7.5	Optional

# **Progression Requirements**

The programme follows the University's regulations for <u>Progression</u>, <u>Determination and Classification of Results: Undergraduate and Integrated Masters Programmes</u> or <u>Progression</u>, <u>Determination and Classification of Results: Postgraduate Master's Programmes</u>. Any exemptions or variations to the University regulations, approved by AQSC are located in <u>section VI of the University Calendar</u>.

### Support for student learning

There are facilities and services to support your learning some of which are accessible to students across the University and some of which will be geared more particularly to students in your particular Faculty or discipline area.

### The University provides:

- library resources, including e-books, on-line journals and databases, which are comprehensive and up-todate; together with assistance from Library staff to enable you to make the best use of these resources
- high speed access to online electronic learning resources on the Internet from dedicated PC Workstations
  onsite and from your own devices; laptops, smartphones and tablet PCs via the Eduroam wireless network.
  There is a wide range of application software available from the Student Public Workstations.
- computer accounts which will connect you to a number of learning technologies for example, the Blackboard virtual learning environment (which facilitates online learning and access to specific learning resources)
- standard ICT tools such as Email, secure filestore and calendars.
- access to key information through the MySouthampton Student Mobile Portal which delivers timetables, Module information, Locations, Tutor details, Library account, bus timetables etc. while you are on the move.
- IT support through a comprehensive website, telephone and online ticketed support and a dedicated helpdesk in the Hartley Library.
- Enabling Services offering support services and resources via a triage model to access crisis management, mental health support and counselling. Support includes daily Drop In at Highfield campus at 13.00 15.00 (Monday, Wednesday and Friday out of term-time) or via on-line chat on weekdays from 14.00 16.00. Arrangements can also be made for meetings via Skype.
- assessment and support (including specialist IT support) facilities if you have a disability, long term health problem or Specific Learning Difficulty (e.g. dyslexia)
- the Student Services Centre (SSC) to assist you with a range of general enquiries including financial matters, accommodation, exams, graduation, student visas, ID cards

- Career and Employability services, advising on job search, applications, interviews, paid work, volunteering and internship opportunities and getting the most out of your extra-curricular activities alongside your degree programme when writing your CV.
- Other support that includes health services (GPs), chaplaincy (for all faiths) and 'out of hours' support for students in Halls and in the local community (18.00-08.00).
- A Centre for Language Study, providing assistance in the development of English language and study skills for non-native speakers.

#### The Students' Union provides

- an academic student representation system, consisting of Course Representatives, Academic Presidents, Faculty Officers and the Vice-President Education; SUSU provides training and support for all these representatives, whose role is to represent students' views to the University.
- opportunities for extracurricular activities and volunteering
- an Advice Centre offering free and confidential advice including support if you need to make an academic appeal
- Support for student peer-to-peer groups, such as Nightline.

# Methods for evaluating the quality of teaching and learning

You will have the opportunity to have your say on the quality of the programme in the following ways:

- Completing student evaluation questionnaires for each module of the programme.
- Acting as a student representative on various committees, e.g. Staff/Student Liaison Committees, School Programmes Committee OR providing comments to your student representative to feedback on your behalf.
- Serving as a student representative on Faculty Scrutiny Groups for programme validation.
- Taking part in programme validation meetings by joining a panel of students to meet with the Faculty Scrutiny Group.

Further details on the University's quality assurance processes are given in the *Quality handbook*.

## **Career Opportunities**

Successful completion of the programme should enable students to find relevant careers in both the private and public sectors in areas including manufacturing, retail, international and national transportation across all modes (road, train, air, water), third party logistics, and services. There are also opportunities to join consultancy firms and software producers in areas such as distribution network planning, vehicle route planning, public transport, warehouse management, location decision support, enterprise resource planning, production scheduling, healthcare logistics, and workforce planning.

Typical entry roles include supply chain analyst, logistics planner, project manager, events planning, production planner, supplier relationship management, inventory and warehouse management, vehicle fleet management, customer service support, and reverse logistics.

## External Examiner(s) for the programme

Name: Dr Kristina Marintseva - Coventry University

Students must not contact External Examiner(s) directly, and external examiners have been advised to refer any such communications back to the University. Students should raise any general queries about the assessment and examination process for the programme with their Course Representative, for consideration through Staff: Student Liaison Committee in the first instance, and Student representatives on Staff: Student Liaison Committees will have the opportunity to consider external examiners' reports as part of the University's quality assurance process.

External examiners do not have a direct role in determining results for individual students, and students wishing

to discuss their own performance in assessment should contact their Personal Academic Tutor in the first instance.

**Please note:** This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided. More detailed information can be found in the programme handbook.

# **Appendix 1:**

Students are responsible for meeting the cost of essential textbooks, and of producing such essays, assignments, laboratory reports and dissertations as are required to fulfil the academic requirements for each programme of study. In addition to this, students registered for this programme also have to pay for:

#### **Additional Costs**

Type	Details
Approved Calculators	Candidates may use calculators in the examination room only as specified by
	the University and as permitted by the rubric of individual examination
	papers. The University approved models are Casio FX-570 and Casio FX-85GT
	Plus. These may be purchased from any source and no longer need to carry
	the University logo.
Computer discs or USB	You may find it useful to purchase some USB memory sticks or other devices
drives	to store your personal files. However these standalone devices may fail and
	therefore you should always take backups. As a student enrolled at the
	University you will be able to safe your own computer files on an account so
	that you can access them from multiple University computers. This is also
	considered a safe way of keeping backups of all your files.
Hardware	You will be able to use University computers at various locations including the
	Library to write reports or interact with software programmes as necessary. It
	may be very useful for you to use your own laptop device for certain tasks if
	you want to work at your own preferred locations such as your home, but be
	aware that in case this device gets damaged you may lose valuable files -
	therefore it is important to always safe your work on your University student
	account as a backup in addition to saving any work on separate hardware
	devices in case you don't have immediate access to your University account.
	Reporting failure of your own laptop is not a valid excuse to being late with
	e.g. a coursework submission!
Optional Visits (e.g.	As part of the programme we may organise optional visits to job fairs,
museums, galleries)	companies, etc. You will normally be expected to cover the cost of travel and
51	admission, unless otherwise specified.
Placements (including	In the context of conducting a dissertation with an industrial project, you may
Study Abroad Programmes)	need to work during the summer months on the premises of a company
	within or outside of the UK. How expenses for traveling and accommodation
	are covered is dependent on the particular case but usually the majority of
	these costs can be reimbursed. Specific sessions in the second semester will
Disting and Distance in a	cover these and other elements of industrial project placements.
Printing and Photocopying	In most cases, written coursework such as essays; projects; dissertations are
Costs	submitted online and by hard copy. The costs of printing a hard copy for
	submission of such coursework will be the responsibility of the student.
	The cost of photocopying will also be the responsibility of the student.
	https://www.southampton.ac.uk/isolutions/students/printing
Software Licenses	Some modules may involve lab sessions or coursework where you practise
Software Licenses	certain specialised software products. The University will enable you to have
	access to such software without the need for you to pay for a software license.
Stationery	You will be expected to provide your own day-to-day stationary items, e.g.
Stationery	pens, pencils, notebooks, etc). Any specialist stationery items will be specified
	under the Additional Costs tab of the relevant module profile.
Textbooks	Where a module specifies core texts these should generally be available on
	the reserve list in the library. However due to demand, students may prefer to
	buy their own copies. These can be purchased from any source.
	,,,,,,,
	Some modules suggest reading texts as optional background reading. The
	library may hold copies of such texts, or alternatively you may wish to
	purchase your own copies. Although not essential reading, you may benefit
	from the additional reading materials for the module.

In some cases you'll be able to choose modules (which may have different costs associated with that module) which will change the overall cost of a programme to you. Details of such costs will be listed in the Module Profile. Please also ensure you read the section on additional costs in the University's Fees, Charges and Expenses Regulations in the University Calendar available at <a href="https://www.calendar.soton.ac.uk">www.calendar.soton.ac.uk</a>.