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MSc Business Analytics: Operational Research and Risk Analysis

Coronavirus information for applicants and offer-holders

We understand that prospective students and offer-holders may have concerns about the ongoing coronavirus outbreak. The University is following the advice from Universities UK, Public Health England and the Foreign and Commonwealth Office.

Read our latest coronavirus information (/coronavirus-applicants-update/)

MSc Business Analytics: Operational Research and Risk Analysis / Course details

Year of entry: 2020

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Course description

Learn the fundamental theories, approaches and analytical toolkit of data analytics, decision sciences, applied operational research and statistics.

- Gain a solid theoretical foundation and quantitative skills, alongside practical problem-solving techniques

- Apply your knowledge to real-life scenarios using case studies, individual and team consulting-based assignments, presentations and software tools

- Use SAS Enterprise packages as part of the `Data Analytics for Business Decision Making' unit. SAS sponsor a coursework prize for this project

- Choose from a broad range of options to meet your interests or career aspirations

- Prepare for a career in consultancy, finance, retail, manufacturing, government analytics units, defence, IT systems, outsourcing and telecoms.

Special features

We run a core unit on Data Analytics which will introduce students to SAS Enterprise Guide and Miner. A coursework prize for this project will be sponsored by SAS.

Recent highlights included a case study run by Deloitte, a presentation from SAS on the Future of Analytics and ongoing dissertation projects with Unilever, CGA, Barclays and Convergys.

The course is closely linked with the Decision and Cognitive Sciences Research Centre (https://www.alliancembs.manchester.ac.uk/research/decision-science/index.html) , meaning that you benefit from teaching that incorporates the latest research. You may also find opportunities to collaborate with ongoing research projects and attend research seminars organised by the Research Centre.

Coursework and assessment

Assessment varies depending on course units taken. It may include a combination of individual course work, group project assessment and presentations, assignments, in-class tests and examination. The dissertation normally ranges between 12,000 and 25,000 words.

Course unit details

During the course you will be taking 180 credits in all. The eight taught modules during semester one and two total 120 credits and consists of both compulsory and optional taught units which can be viewed in the list below.

The core courses unit introduce you to mathematical principles and practical tools for Optimization, Decision Making, Data Analytics, Statistical Analysis, Simulation and Risk Analysis. Specific software packages include SAS, SPSS, Excel, Excel Solver, SIMUL8, iThink, Risk Solver, IDS, and Python.

Over the summer period, you will carry out your Research Dissertation, worth 60 credits. Examples of recent dissertation project topics include:

>   Predictive analytics in direct marketing

>   Systematic risk modelling and analysis for enterprise risk management

>   Predicting the stock price using social media sentiment analysis

>   Understanding the effects of social influence in decision making

>   Data analytics in sports

Course unit list

The course unit details given below are subject to change, and are the latest example of the curriculum available on this course of study.

Title	Code	Credit rating	Mandatory/optional
Risk, Performance and Decision Analysis (BMAN60092#course-unit-details)	BMAN60092	15	Mandatory
Mathematical Programming and Optimisation (BMAN60101#course-unit-details)	BMAN60101	15	Mandatory

Title	Code	Credit rating	Mandatory/optional
Data Analytics for Business Decision Making (BMAN60422#course-unit-details)	BMAN60422	15	Mandatory
Applied Statistics and Business Forecasting (BMAN71791#course-unit-details)	BMAN71791	15	Mandatory
Simulation & Risk Analysis (BMAN73942#course-unit-details)	BMAN73942	15	Mandatory
Global Operations Management (BMAN70081#course-unit-details)	BMAN70081	15	Optional
Strategic Supply Chain Management (BMAN70111#course-unit-details)	BMAN70111	15	Optional
Global Supply Chain Management: Theories and Practice (BMAN70292#course-unit-details)	BMAN70292	15	Optional
Strategic Project Organising (BMAN70391#course-unit-details)	BMAN70391	15	Optional
Knowledge Management and Digital Strategy (BMAN71652#course-unit-details)	BMAN71652	15	Optional
Decision Behaviour, Analysis and Support (BMAN73271#course-unit-details)	BMAN73271	15	Optional
Supply Chain Logistics Management (BMAN73672#course-unit-details)	BMAN73672	15	Optional
Programming in Python for Business Analytics (BMAN73701#course-unit-details)	BMAN73701	15	Optional

Scholarships and bursaries

Read about available scholarships and funding (https://www.alliancembs.manchester.ac.uk/study/masters/scholarships-and-funding/) .

Disability support

Practical support and advice for current students and applicants is available from the Disability Advisory and Support Service. Email: dass@manchester.ac.uk (mailto:dass@manchester.ac.uk)

Contact us

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Contact details (/connect/contact-us/)

Legal notices and proceedings

(/coronavirus/legal/)

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