PROGRAMME SPECIFICATION (Taught Postgraduate)	

1	**Awarding Institution**	Newcastle University
2	**Teaching Institution**	Newcastle University
3	**Final Award**	MSc
4	**Programme Title**	Business Analytics Business Analytics (with Study Abroad) Business Analytics (Dual Award)
5	**Programme Code**	5492F 5492N 5492I
6	**Programme Accreditation**	N/A
7	**QAA Subject Benchmark(s)**	Masters Awards in Business Management
8	**FHEQ Level**	Level 7
9	**Last updated**	May 2024

10 Programme Aims

The MSc in Business Analytics aims to produce graduates who understand both the fundamentals of data analytics and can apply them in a wide range of business domains and applications. The course is a conversion master, aimed at graduates of any degree, including those who have a background either in business, statistics or computer science, but are interested in a business analytics.

The programme aims are:

1 To produce professionals with comprehensive understanding of business analytics

2 To develop a practical understanding for the realisation of benefits of business analytics in modern organisations

3 To provide a systematic understanding of skills required to tackle practical and business analytics challenges in a range of business domains and applications

4 To develop skills in critical assessment, collection, management, analysis and visualisation of data in the context of business analytics

5 To develop advanced research skills to identify emerging business analytics problems and opportunities, devise appropriate methodologies to tackle these problems and develop and implement effective solutions

6 To produce professionals who can be self-directed and able to act autonomously, but who are also able to operate effectively in a variety of team roles

7 To produce professionals who have the ability to communicate effectively.

8 To encourage creativity and help develop enterprise skills, in order to facilitate decision making in complex and unpredictable situations

9 Provide the opportunity to experience new areas of study outside of their usual programme of study at Newcastle University.

11 Learning Outcomes

The programme outcomes have references to the benchmark statements for Masters Awards in Business and Management and provides students with opportunities to demonstrate disciplinary competency by developing their knowledge and understanding of the key principles and theories in their subject area and combines theory with the application of skills required to generate solutions within their discipline.

Knowledge and Understanding

On completing the programme students should have:

A1 An in-depth understanding of the fundamental knowledge required to tackle business analytics problems

A2 A comprehensive knowledge of the commonly used business analytics methods in business and their application to practice

A3 A deep understanding of contemporary issues related to the adoption and implementation of business analytics in organisations.

A4 Up-to-date knowledge of internal and external business analytics project management

A5 Advanced knowledge and understanding of how to apply business analytics in specialist business areas

A6 A deep understanding of the implications of applying business analytics in research projects

A7 The ability to identify ethical issues and make recommendations for appropriate courses of action in the context of business analytics

A8 The ability to define the key components of digital business environments in different societal contexts and give examples of how environmental components differ across those contexts

A9 Demonstrate the ability to adapt to different learning environments and cultures

Teaching and Learning Methods

Fundamental and specialist knowledge are imparted through direct student contact (lectures, tutorials and supervisions), supplemented by seminars and business analytics practical sessions that may take the form of group discussions, problem solving and assessed coursework, and project/research work. Student understanding and learning is enhanced by the use of business analytics exercises and problem-solving tasks, as well as teamwork and practical work and undertaking of a group project. Independent learning is encouraged through the provision of reading lists, the critical analysis of research papers, and ready access to online information resources. Adequate time is provided in all modules for private study for independent learning. (A1-A8)

Assessment Strategy

A variety of techniques are employed to assess knowledge and understanding (A1–A8) including a large proportion of continuously-assessed material: written reports on practical work and problem-solving exercises; presentations; project proposals; and project theses. Some modules include self- and peer-assessed material and problem-based questions. Fundamental knowledge is assessed primarily through the students' abilities to apply the

knowledge to relevant problems are assessed through the use of practical exercises and tutorials, group work, problem-solving exercises and reports. The above can be undertaken independently or as part of a group.

Intellectual Skills

On completing the programme students should be able to:

B1 Apply knowledge of business analytics techniques to a range of business domains and applications

B2 Propose, carry out and write up an extended research project related to business analytics involving where appropriate a literature review, problem specification, design, implementation, and analysis

B3 Have expertise in the use and applicability of business analytics tools and techniques

Teaching and Learning Methods

Subject-specific and professional skills are imparted by a combination of lectures, practical sessions, case studies and an in-depth research project tailored to individual interests. Small group teaching is used to focus on specific research topics in detail, to carry out problem solving exercises and critical analysis of the business analytics in the context of different business domains and applications (B1-B3).

Assessment Strategy

Subject-specific and professional skills related to business analytics (B1-B3) are continuously assessed through material that includes written essays, practical write-ups, literature reviews, a group project, oral presentations, and a research thesis. The assessment methods aim to evaluate the students' understanding and ability to apply business analytics in different business and management domains.

Practical Skills

On completing the programme students should be able to:

C1 Apply appropriate statistical and data management techniques in order to tackle business analytics challenges in a number of different business and management domains.

C2 Solve business analytics development problems and communicate effectively the findings and recommendations.

C3 Collect, manage, analyse and visualise data in appropriate and ethical manner as part of a business analytics project

C4 Demonstrate appropriate business analytics solutions applied depending on the nature of the business challenged faced.

Teaching and Learning Methods

Critical evaluation of current research is developed through literature searching, through coursework exercises and in the business analytics research project in particular. The ability to solve analytics problems is acquired through practical sessions and self-directed learning. Tutorials and group discussion are used to help students reflect on theory and practice and explore different options to tackling analytical problems. Problem solving exercises and case studies are used to improve student skills in the application of appropriate solutions of business analytics in different domains and applications. (C1-C4).

Assessment Strategy

Cognitive skills (C1-C4) are primarily assessed continuously in the form of individual essays from practical studies, tutorial exercises and a group project report. Data collection, management, analysis and visualisation and interpretation are a strong component of many modules and are also practiced through the use of continuously-assessed problem-solving exercises.

Transferable/Key Skills

On completing the programme students should be able to:

D1 Use appropriate verbal communication to convey business analytics challenges, findings and recommendations tailored in content style and presentation to the needs of their intended audience

D2 Use data and literary resources

D3 Work as part of a team contributing to effectively and appropriately to the team based activity.

D4 Use creative skills

D5 Adapt and operate in a different learning and cultural environment

Teaching and Learning Methods

Oral presentation skills are exercised by group discussions in small group teaching sessions, by communication during group exercises, and by the preparation of oral presentations on specific research topics. Written communication skills are developed during independent study, the preparation of coursework, business analytics reports and the completion of the business analytics research project proposal and the project thesis. Formal lectures and practical sessions address the use of data and literary resources and research techniques. These are reinforced through the use of practice exercises. The group project and student-led tutorials are used to develop team skills. (D1-D5).

Assessment Strategy

Written communication skills are assessed by essay and report preparation, the research thesis. Oral communication skills are assessed in oral presentations. The ability to use computer-based resources is assessed through the preparation of business analytics reports and through self-assessment. Team work is formally evaluated using small group-based problem-solving and business analytics projects. Independent work is assessed in essays, reports and research projects. Creativity is assessed through problem-solving exercises as part of business analytics projects. (D1-D6).

12 Programme Curriculum, Structure and Features

Basic structure of the programme

This is a one-year, full-time, intensive modular programme. The programme consists of two parts: a **taught component** that runs during the first and second semesters and a **research project** that runs during the third semester, for which a thesis is submitted. The taught component of the course accounts for 120 credits, while the dissertation module accounts for the remaining 60 credits.

The programme is structured around four interconnected building blocks:

- Semester 1: Development of knowledge, skills and competencies in data science, namely statistics and programming for business analytics
- Semester 1: A critical managerial perspective of business analytics projects and their management
- Semester 2: Application and critical evaluation of analytics in different business domains (e.g. marketing, information systems, operations) or with an option to take 20 credits in banking
- Semester 3: In-depth application of business analytics in the context of an individual research or consultancy project.

Key features of the programme (including what makes the programme distinctive)

The Business Analytics programme aims to prepare graduates who have the necessary analytical skills to tackle projects in a range of business domains and applications. The programme provides an opportunity to develop business analytics and project management competencies that students can then apply to different areas of business and management. This balanced perspective aims to enhance employability prospects by not focusing solely on developing technical knowledge and skills, but also by ensuring that these can applied effectively. Exposing students to different areas and business challenges, students will develop a critical appreciation of the value of "data" and relevant digital technologies, when it comes to business decision making. The key features of the programme include (a) development of business analytics skills and competencies that are applied in different domains (b) exposure to a wide set of analytical tools and critical perspectives in business decision making (c) opportunity to work and manage real-life business analytic projects and (d) experiential learning that is based on application and engagement with practice

Optional international experience – following successful completion of taught elements

Following the completion of all taught elements of the programme, registrants will have the option to undertake one additional semester of study with an existing NUBS partner institution. The exchange period will begin in late September/early October (depending on the destination institution) following the submission of the dissertation. Students participating in an exchange will be instructed to select partner modules which will add value to their NUBS degree, focussing on subjects that will enhance their graduate employability prospects.

Dual Award

12-18 months of study at a partner institution to pursue a second complimentary degree programme. The additional period of study will begin in later September/early October (depending on the destination institution) following submission of the dissertation.

Programme regulations (link to on-line version)

5492 Programme Regulations 25-26

13 Support for Student Learning

Generic information regarding University provision is available here.

14 Methods for evaluating and improving the quality and standards of teaching and learning

Generic information regarding University provision is available here.

Accreditation reports
None

Additional mechanisms
None

15 Regulation of assessment

Generic information regarding University provision is available here.

In addition, information relating to the programme is provided in:

The University Prospectus: http://www.ncl.ac.uk/undergraduate/degrees/#subject

Degree Programme and University Regulations:
http://www.ncl.ac.uk/undergraduate/degrees/#subject

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

Annex

		Intended Learning Outcomes			
Module	**Type**	**A**	**B**	**C**	**D**
MAS8504 Graduate foundations of Statistics and Data Science (Theory and Methods)	Compulsory	1 2	3	2	1 2
MAS8505 Graduate foundations of Statistics and Data Science (Applications)	Compulsory	1 2	3	1	1 2
NBS8011 Dissertation	Compulsory	1 6 7	1 2 3	1 2 3 4	1 2 3 4
NBS8062 Research Methods	Compulsory	6 7			1 2
NBS8234 Project Management	Compulsory	4	1 3	1 4	1 2
NBS8604 Marketing Analytics	Optional	1 2 5 8	1 3	1 2 3 4	1 2
NBS8665 Artificial Intelligence in Business	Compulsory	1 2 5 8	1 3	1 2 3 4	1 2
ISO8005 Web and Social Media Analytics	Compulsory	1 2 3 5	1 3	1 2 3	1 2 4
NBS8641 Data Analytics for Business Insights	Compulsory	1 2 3 7	3	1 2 3 4	1 2
NBS8642 Business Analytics Group Project	Compulsory	1 2 3 4 7	1 2 3	1 2 3 4	1 2 3 4
NBS8643 Operations Analytics	Optional	1 2 5 8	1 3	1 2 3 4	1 2
NBS8201 Financial Risk Management	Optional	2,3,5,7	3	1	1
NBS8203 Retail and Investment Banking	Optional	5,7	3	1	1