PROGRAMME SPECIFICATION

KEY FACTS

Programme name	**Business Analytics**
Award	MSc
School	Bayes Business School
Department or equivalent	Specialist Master Programme
Programme code	BUMSBAN01 / PSBUAN
Type of study	Full Time
Total UK credits	180
Total ECTS	90

PROGRAMME SUMMARY

The MSc in Business Analytics combines academic rigour with authentic practical experience to provide relevant education to support the career progression for those of you that aim to generate and capture greater competitiveness in data-driven businesses. Essential analytical skills and business knowledge are sought to facilitate improving the operational efficiency, business performance and strategic management of an organisation. The Programme aims to bridge the gap between the computing function and business leaders in order to achieve effectiveness.

Before arriving at Bayes you will complete three online modules to prepare you for the year ahead: Introduction to Python, Introduction to R and Plagiarism Awareness. These modules are designed to ensure that you have the requisite technical knowledge to make the most of your MSc in Business Analytics.

Eight core modules are delivered over the first two terms that consistently rely on computing skills that are developed in an incremental manner via experiential learning. The third term consists of four elective modules chosen from a broad range of modules available within the Bayes Business School postgraduate portfolio. In addition, a compulsory Applied Research Project concludes the educational offer of the MSc in Business Analytics, where you have the opportunity to convey your accumulated knowledge.

As you progress through the MSc you will also be introduced to a range of professional skills which are designed to prepare you for your future career. Alongside key

quantitative skills, business knowledge and commercial awareness you will also develop your communications, analysis and leadership skills. We also encourage you to make the most of the specialist careers provision available at Bayes Business School to help you prepare for future employment.

Aims

The main purpose of the programme is to develop a comprehensive set of skills and encourage positive attributes that are essential to becoming a successful business analyst. Therefore, the degree is committed not only to creating specialist skills, but also to developing the so-called ``soft skills" aimed to influence people and organisations. Besides achieving effective and persuasive communication, the module leaders draw attention over ethics-related issues, which is another key ingredient to responsible leadership.

Postgraduate Certificate
Following the award of a Postgraduate Certificate in Business Analytics you will be able to examine the theories related to all aspects of Business Analytics and apply your learning in the appropriate context. You will possess the skills and knowledge required to develop a career in the Business Analytics arena, will have mastered essential skills and knowledge and also developed an appreciation of what it takes to engage with Business Analytics in context. The assessments you undertake to achieve this qualification will focus on the skills, knowledge and attributes that you will need to facilitate your career development and will support you in developing your practical abilities. The postgraduate certificate will enable you to gain confidence in your skills and your future role.

Postgraduate Diploma
Following the award of a Postgraduate Diploma Business Analytics in addition to the above you will gain a more advanced knowledge and in-depth understanding of these subject areas, from a variety of different perspectives and in order for you to broaden your expertise and skills. You will have developed a sophisticated appreciation of current theories and practice in Business Analytics together with the ability to evaluate a range of different approaches to them.

MSc
Following successful completion of the MSc in Business Analytics you will have the ability to assess and evaluate all aspects of Business Analytics and apply your learning in the appropriate context. You will also have demonstrated the capacity to undertake business research from an analytical perspective and present an individually researched Project applicable to the Business Analytics subject area.

WHAT WILL I BE EXPECTED TO ACHIEVE?

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

Knowledge and understanding:

- Extract information from the data and assess its value in order to create competitive advance.
- Make an active contribution to creating ground-breaking strategies by analysing an existing business, and illustrating the development of new business opportunities.
- Interrogate and synthesise data sets using analytical skills developed throughout your degree.

Skills:

- Evaluate and solve complex problems within an organisation's strategic perspective, making use of your analytical skills.
- Interpret business needs and translate them into an opportunity that you can communicate effectively to ultimate decision-makers.
- Present and explain data via effective and persuasive communication.
- Take a strategic approach to your work, applying a commercial focus to the theory of business analytics. .

Values and attitudes:

- Behave with assurance, confidence and self-awareness in applying the skills and knowledge learned over time.
- Demonstrate critical awareness of the key methodologies put in practice in organisations.
- Reflect on professional integrity and show sensitivity towards ethical considerations.

HOW WILL I LEARN?

The MSc in Business Analytics reflects the pedagogic philosophy of Bayes Business School: to deliver an advanced, technically challenging education, preparing business professionals and leaders to operate at decision-making levels. Teaching and learning are delivered and achieved through a range of methods including lectures, case studies, group work presentations, seminars and consultancy projects for organisations. You also make extensive use of Moodle our Virtual Learning Environment (VLE), which is used to support all teaching and learning on the MSc programme.

The MSc in Business Analytics is designed and structured to allow for intellectual progression through the core and option modules. Modules taught in Term 2 normally build on the knowledge and skills acquired in Term 1. Term three allows for further progression by choosing specialist elective modules and an Applied Research Project, where the students are expected to apply knowledge and skills acquired earlier in the

programme.

The Bayes MSc in Business Analytics is worth 180 credits at HE Level 7. One credit is worth 10 teaching and learning hours. Therefore the overall teaching and learning hours required for successful completion of the programme is approximately 1800 hours. This is made up of contact time (e.g. time spent in class) and non-contact time outside of class.

Non-contact hours are for self-directed, independent study and account for the **minimum** amount of time you should spend studying independently. For example, carrying out subject research, practising and reflecting on techniques learned in class, reading widely around the subject to develop a deeper understanding, carrying out activities using the VLE, attending induction and career development workshops, working in groups to complete assignments and presentations, and completing individual assignments and other homework.

Overall teaching and learning hours: approx 1800 hours
Contact hours: approx 306 hours

WHAT TYPES OF ASSESSMENT AND FEEDBACK CAN I EXPECT?

Assessment and Assessment Criteria

This MSc is assessed by coursework and also includes some unseen examinations. Standard MSc grade related criteria applies.

Student presentations to lecturers, visitors from the City and other members of the class are used to give invaluable practice in using, applying and expressing complex subject matter clearly and concisely to a business-focus audience. Group work consolidates the acquired knowledge and builds interpersonal and communication skills, which are essential for your future career. Test and other written examinations are additional assessments of knowledge that complement the in-class presentations and group work.

Assessment Criteria are descriptions, based on the intended learning outcomes, of the skills, knowledge or attitudes that you need to demonstrate in order to complete an assessment successfully, providing a mechanism by which the quality of an assessment can be measured. Grade- Related Criteria are descriptions of the level of skills, knowledge or attributes that you need to demonstrate in order achieve a certain grade or mark in an assessment, providing a mechanism by which the quality of an assessment can be measured and placed within the overall set of marks. Assessment Criteria and Grade-Related Criteria will be made available to you to support you in completing assessments. These may be provided in programme handbooks, module specifications, on the virtual learning environment or attached to a specific assessment task.

Feedback on assessment

Feedback is provided in line with our Assessment and Feedback Policy and becomes available in a variety of ways throughout your course, both formally and informally, in

order to support your learning.

You are normally provided with coursework feedback within three weeks of the submission deadline or assessment date. This would normally include a provisional grade or mark and the timescale for feedback on Applied Research Projects may be longer. Examination grades are provided once they have been agreed by an Assessment Board. More details about the feedback you may expect from individual modules and assessments are provided by the module lecturers.

The full policy can be found at:
https://www.city.ac.uk/__data/assets/pdf_file/0008/68921/assessment_and_feedback_policy.pdf

Assessment Regulations

In order to pass your MSc, you should complete successfully or be exempted from the relevant modules and assessments and will therefore acquire the required number of credits. The programme is weighted according to the number of credits awarded for each module. Pass / Fail modules are excluded from this calculation. The pass mark for each module is 50% and there are no minimum qualifying marks for individual components.

If you fail an assessment component or a module, the following will apply:

1. Re-Sit:

You will normally be offered one re-sit attempt.

If you are successful in the re-sit, you will be awarded the credit for that module. The mark for each assessment component that is subject to a re-sit will be capped at the pass mark for the module. This capped mark will be used in the calculation of the final module mark together with the original marks for the component(s) that you passed at first attempt.

2. Compensation:

Compensation can only be awarded by the Final Assessment Board and must be applied within the following limits and conditions:

Where you fail up to a total of 20 credits (15 for a postgraduate certificate), you may be eligible for compensation if:

- Compensation is permitted for the module involved (see the “What will I Study” section of the programme specification), and
- It can be demonstrated that you have satisfied all the Learning Outcomes of the modules in the Programme, and
- A minimum overall mark of no more than 10% below the module pass mark has

been achieved in the module to be compensated, and

- An aggregate mark of 50% has been achieved overall.

If you receive a compensated pass in a module you will be awarded the credit for that module. The original component marks will be retained in the record of marks and your original mark shall be used for the purpose of your award calculation.

If, at the point where you have results for all taught modules:

- You have no more than 20 credits outstanding (15 for a PG Certificate), and
- The grade for this module(s) is 40% or above, and
- Your overall degree average is at least 50%, and
- If the module(s) is eligible for compensation.

Then you will **not** be required to undertake the re-sit for that module, as this will be eligible for compensation.

Please note:

- **If you fail more than 20 credits (excluding project modules), then you must retake all outstanding assessments with no exceptions.**

If you do not meet the pass the requirements for a module and do not complete your resit by the date specified you do not progress and the Assessment Board requires that you be withdrawn from the Course.

If you fail to meet the requirements for the Course, the Assessment Board considers whether you are eligible for an Exit Award as per the table below.

If you would like to know more about the way in which assessment works at City, please see the full version of the Assessment Regulations at:
http://www.city.ac.uk/__data/assets/word_doc/0003/69249/s19.doc

WHAT AWARD CAN I GET?

Master's Degree:

	HE Level	Credits	Weighting (%)
Taught	7	180	100%

Class	% required
With Distinction	70
With Merit	65
Without classification	50

Postgraduate Diploma:

	HE	Credits	Weighting

Class	% required

	Level		(%)
Taught	7	120	100

With Distinction	70
With Merit	65
Without classification	50

Postgraduate Certificate:

	HE Level	Credits	Weighting (%)
Taught	7	60	100

Class	% required
With Distinction	70
With Merit	65
Without classification	50

WHAT WILL I STUDY?

The overall architecture of the degree mirrors the structure of other specialist MSc degrees with some additional, non-credit bearing, foundation online modules that are aimed at ensuring that you have the base knowledge required to fully engage with your course and progress successfully through your degree.

These subjects are key elements of your course and you are strongly encouraged to complete the modules before you arrive at Bayes in order to avoid being at a disadvantage.

For each of the following three modules you will be given access to our engaging and innovative online modules, for you to work through at your own pace over the summer. At the end of each module there will be a test so that you can assess your achievement. You will have five attempts to complete each of these tests and if you have not been able to pass them before the end of your induction programme you will be asked to meet with the Course Director in order to discuss how best to address any gaps in your attainment.

It is to your advantage to complete the learning on these modules to ensure you are able to access the content of your MSc.

1. Introduction to Python;

   Python is a widely used high-level programming language for general-purpose programming.

2. Introduction to R;

   The R language is widely used among statisticians and data miners for developing statistical software[7] and data analysis

3. Professional Ethics and Good Academic Practice.

In addition, you are required to complete a number of induction workshops at the beginning of the degree as follows:

- Team building
- Career induction and careers fair
- Professional development skills

The MSc is taught over three terms. You must complete four core modules in both Term 1 and Term 2, each term consisting of 60 credits in total. The same number of credits is allocated to Term 3, which consists of a compulsory Applied Research Project four elective modules chosen from a wide portfolio of electives offered to the Specialist Masters Programme.

During term 3 you will be able to choose from a range of electives to personalise your experience.

This list of electives is an indication of the range of modules that can be on offer and is subject to change due to circumstances such as: enhancing or updating the quality and content of educational provision; responding to student feedback; academic staffing changes; the number of students in each programme; a lack of student demand for certain modules; or factors beyond the institution's reasonable control, such as meeting the latest requirements of a commissioning or accrediting body. For these reasons, not all the electives listed will be offered every year. New (additional or replacement) modules may also be added for these reasons.

There may also be pre-requisites for joining a module, and space and timetable availability restrictions may also apply.

The list of electives offered in a given year will be confirmed by February 1st.

Module Title	**SITS Code**	**Module Credits**	**Core/ Elective**	**Compensation Yes/No**	**Level**
Term 1					
Revenue Management and Pricing	SMM641	15	C	Y	7
Network Analytics	SMM638	15	C	Y	7
Data Visualisation	SMM635	15	C	Y	7
Analytics Methods for Business	SMM634	15	C	Y	7
Term 2					
Applied Deep Learning	SMM768	15	C	Y	7
Machine Learning	SMM636	15	C	Y	7
Digital Technologies and Value Creation	SMM750	15	C	Y	7
Strategic Business Analytics	SMM640	15	C	Y	7

Term 3					
Applied Research Project	SMM799	20	C	N	7
Ethics, Society and the Financial Sector	SMM500	10	E	Y	7
Strategy Consulting Skills	SMM279	10	E	Y	7
New Market Creation	SMM317	10	E	Y	7
Procurement	SMM543	10	E	Y	7

TO WHAT KIND OF CAREER MIGHT I GO ON?

Information advice and guidance on professional development and potential career pathways for all Bayes Masters degrees is available from Bayes Careers. You are encouraged to make use of the careers service throughout their time at Bayes .

If you would like more information on the Careers support available at Bayes , please visit the following link regarding the Bayes Careers Service:

http://www.cass.city.ac.uk/more-about-cass/careers-services.

HOW DO I ENTER THE PROGRAMME?

To be accepted to a Bayes MSc degree you need a good Bachelor degree. This usually means a high UK 2.1 or above, or the equivalent from an overseas institution. Students with a degree that includes quantitative subjects are sought.
Applicants need to submit two references, one of which must be an academic reference if the candidate does not have previous work experience. Previous work experience is not a requirement of our full time MSc courses.

We require all students who have not previously studied in English to take an IELTS exam. The IELTS requirement is 7.0 with a minimum of 6.5 in writing.

GMAT is recommended for students wishing to apply for this course.

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