BIC3030-B module descriptor	
Module Title	Introduction to Mathematics, Data Analysis and Statistics
Credit Level	20 credits (RQF Level 3)
Session	2026/7 academic year
BDA occurrence	Academic Year available at University of Bradford
BDA occurrence	Non Standard Year available at University of Bradford
BDB occurrence	Non Standard Year available at University of Bradford

Transparency notice

This specification for module code BIC3030-B has been generated automatically in advance of the academic year 2026/7. Every effort has been made to ensure that the information is accurate at the time of publication, but changes permitted by our Student Contract Terms and Conditions could be made in the interval between publishing and commencement of teaching; where changes impact the terms and conditions of an applicant's or student's offer, these are communicated to them as soon as possible.

BIC3030-B module aims

This module provides you with the core mathematical knowledge and skills you need to engage successfully with undergraduate study across a range of disciplines. Foundation-level topics covered include basic numbers, algebra, geometry, formulae, and statistics.

The module develops your ability to solve mathematical problems, explores the real-world application of mathematical concepts and techniques and provides you with a practical introduction to the collection, collation, analysis and presentation of statistical data.

BIC3030-B module learning outcomes	
No.	**Students completing the module will be able to:**
01	Use appropriate mathematical language, notation and conventions.
02	Apply mathematical techniques to solve a range of problems.
03	Present mathematical data in an appropriate visual format and draw relevant conclusions
04	Apply mathematical knowledge and skills to the analysis of quantitative data.

No.	Students completing the module will be able to:
05	Present statistical data clearly and accurately using appropriate computer software
06	Interpret data and draw inferences to solve problems

BIC3030-B module outline syllabus

Number
properties, order of operations, fractions, decimals percentages, ratio, estimation.

Algebra
simplifying expressions, factorisation, solving Linear and Quadratic Equations, associated inequalities, formulae manipulation, index laws,

Geometry and formulae
plane co-ordinate geometry, lines, distance, perimeter, areas, circle properties.

Diagrammatic representations of data
written and with the use of computer packages.

Statistical measures
averages and range, set theory and probability.

Evaluation and interpretation of data in context
ethical considerations, including data protection legislation and protocols regarding data use and storage.

Presentation of data and its application to problem-solving in context.

Application of learning to consider a practical problem in the form of a case study.

For more information, visit the VLE (**Canvas**) page, go to our **Reading Lists webpage for this module** or search **https://bradford.rl.talis.com** for this module.

BIC3030-B module notional learning hours

- 110 hours Directed Study
- 90 hours Lectures
- 10 hours Laboratories

The overall expected hours may include contact time, scheduled learning activity, directed and independent study and any minimum expectations for placement learning. Most learning at the University of Bradford has some online content and sessions which are delivered fully by virtual means are labelled as "online".

BIC3030-B module learning, teaching and assessment

Groups are small and classes are student-centred, task-based and interactive.

The classroom approach is explicitly designed to help international students acquire new knowledge and skills, to build their confidence and enable them to become more independent learners. By doing this consistently and across all modules, the programme provides them with a strong foundation for further study in their chosen subject area.

The approach is inclusive and recognises that students come from different backgrounds with a range of previous learning experiences and associated expectations, beliefs and behaviours. Teaching and learning methods are clearly explained so students understand why (where appropriate) they need to engage in new ways of learning and why those they have used or relied on up to this point may be less suited to supporting their ongoing development and their chances of success in UK Higher Education.

Formative work is an integral part of the approach. In class, students are set tasks that require them to apply their knowledge and skills, to think critically and to solve problems. The level of challenge is gradually increased as the students grow in confidence and Tutors help them to see that experimentation, trial and error are central to the learning process, providing constructive feedback on both what has been achieved and how.

Students are also expected to engage in independent study, to reflect on their own performance and to discuss this with their module tutor or personal academic tutor, who will provide support and advice and, when necessary, draw the attention of the Academic Management Team to a struggling student using the Students of concern process.

Assessment develops mathematical competence alongside quantitative data analysis skills.

The closed-book examination (40%) assesses Learning Outcomes 1-3 through mathematical calculations, problem-solving and interpretation of numerical information.

The data analysis assessment (60%) assesses Learning Outcomes 4-6 through analysis of a real-world dataset using appropriate software and statistical techniques.

Formative opportunities include practice problem sheets, workshops, quizzes and tutor-led feedback sessions.

Students demonstrate success by selecting appropriate methods, presenting data clearly, interpreting findings accurately and communicating conclusions effectively.

To pass the module, students must achieve the University pass mark overall. Students who do not pass the first time will be given an opportunity to complete equivalent assessments that address the failed learning outcomes.

BIC3030-B mode of assessment			
Type	**Mode**	**Assessment description**	**Weight**
Summative	Examination - Closed Book	Test to demonstrate and apply appropriate mathematical techniques - LO1, LO2, LO3. (120 minutes)	40%
Summative	Examination - Open Book	Analysis and interpretation of a data set linked to a real-world issue - LO4, LO5, LO6. (90 minutes)	60%

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