BIC6009-A module descriptor	
Module Title	Practical and Laboratory Skills
Credit Level	10 credits (FHEQ Level 6)
Session	2026/7 academic year
BDA occurrence	Semester 1 available at University of Bradford
BDA occurrence	Semester 2 available at University of Bradford
BDB occurrence	Semester 2 available at University of Bradford
BDA occurrence	Semester 3 available at University of Bradford

Transparency notice

This specification for module code BIC6009-A 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.

BIC6009-A module aims

The module will enable you to demonstrate and develop your practical and laboratory skills. It serves as a refresher for those with prior laboratory experience and a chance to learn about safe laboratory practice for those with little or no experience.

As well as acquiring and practising some basic laboratory techniques, you will reflect on the importance of practical work in testing theory and develop your understanding of the regulations and conventions governing practical work in a laboratory or workshop.

BIC6009-A module learning outcomes

No.	Students completing the module will be able to:
01	Reflect on the health and safety regulations and procedural requirements in a laboratory or workshop context.
02	Analyse the hazards and safe working practices in laboratory procedures, use of chemicals, use of machinery.
03	Critically reflect on own practice using a lab/logbook with accurately demonstrates calculations and critical observations.
04	Evaluate the assembly and use of appropriate apparatus, and other equipment, correctly and safely.

BIC6009-A module outline syllabus

This module will cover the following topics:

Laboratory and workshop processes and safety considerations including identification of hazards, whether in terms of the conduct of experiments or awareness of, for example, hazardous chemicals and the care required in handling them. Health and safety regulations governing laboratory and workshop practice; the need for appropriate protective clothing when working with machinery, equipment and potentially dangerous tools or substances. The availability of safety equipment and their use, for example, the types of extinguishers used in the case of emergencies involving different materials or equipment. The role of technical staff in the laboratory or workshop.

Choice and use of appropriate equipment to conduct practical work, for example in selecting glassware and other apparatus in Chemistry. The use of the fume cupboard.

Accuracy required in weighing materials to be used in experiments and in recording data

Participation in a range of experiments covering various disciplines in the sciences. Working with machinery in the engineering workshop.

Use of lab/logbook to record experiments undertaken and findings made

Use of Excel to interpret and manipulate data

Use of Word to write reports of experimental or other practical sessions and maintain an up-to-date lab/logbook

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.

BIC6009-A module notional learning hours

- 20 hours Lectures
- 20 hours Laboratories
- 60 hours Directed Study

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".

BIC6009-A 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. In this module in particular, feedback is provided through the students' lab/logbooks and experimental calculations and observations are reviewed throughout the course and peer feedback is encouraged as much of the lab work will be done in pairs and groups.

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.

Application of the information gained from routine techniques used in medical and molecular biology will be assessed in the summative assessment task, which requires the students to present experimental data in the form of a report to show the interpretation and evaluation of their results.

Summative assessment is a portfolio of tasks relating to work done in the laboratory and in the classroom as well as independent research.

BIC6009-A mode of assessment

Type	Mode	Assessment description	Weight
Summative	Coursework - Written	Portfolio of tasks (1500 words)	100%

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