



# Subject Benchmark Statement: Biosciences

## The Basics

This document is a summary of the Subject Benchmark Statement for Biosciences. It is specifically designed to provide a short and accessible overview of the main statement for students, employers and academics. It is not intended to replace or alter the Subject Benchmark Statement, which should be referred to in the design and approval of courses and when any further detail is required.

Subject Benchmark Statements are an established part of the quality assurance arrangements in UK higher education as non-regulatory, sector-owned reference points, developed and written by academic communities on behalf of their subject. Subject Benchmark Statements describe the nature of study and the benchmark academic standards expected of graduates in specific subject areas, and in respect of particular qualifications. They provide guidance of what graduates in a particular subject might reasonably be expected to know, do and understand at the end of their course or programme.

Subject Benchmark Statements are presented in four sections. Section 1 outlines the contextual information - providing the operational landscape, and boundaries, of the subject discipline. This includes consideration of the ways in which the discipline addresses wider social goals specifically in relation to: equality, diversity and inclusion (EDI); the requirements of disabled students; education for sustainable development (ESD); and, enterprise and entrepreneurship.

Section 2 covers distinctive features of the course, including curriculum design, partnership arrangements, flexibility of delivery, progression and ongoing monitoring processes. The third section explains any features relevant to teaching, learning and assessment activities for the subject. The final section describes the benchmark standards of achievement reached by all graduates with a bachelor's degree with honours in the subject, with some subjects also including achievement at master's level.



## Why study a degree in Biosciences?

Biosciences is a substantial subject discipline, encompassing all aspects of the study of living systems. Biosciences courses aim to provide a broad understanding of the scientific basis of the study of living systems, as well as a suite of skills including: research design and delivery, professionalism, personal responsibility and accountability, independent thought and decision-making where situations are complex or ambiguous. In terms of the scientific content of Biosciences courses, this is varied and dependent on the expertise and offerings of each institution as well as the path each student takes through their course. The scope of the Biosciences is now so extensive that it would be impossible to encompass the breadth and depth of knowledge, as well as skills, relevant to the subject in a lifetime of study. It is not necessary, or indeed possible, for a single Biosciences course to cover all sub-disciplines of the subject. Biosciences courses are often also interdisciplinary to some extent, drawing on aspects of Biomedical Science, Chemistry, Geography, ES3 (Earth Sciences, Environmental Sciences and Environmental Studies), Marine Sciences, Analytical Chemistry, Data Analytics or Information Technology. Biosciences graduates make a significant contribution to a wide range of sectors including industry, government, non-governmental organisations and education. It is vital that we recognise this, and prepare graduates accordingly. The majority of Biosciences graduates will use their knowledge and skills in careers outside of research.



## What are the main teaching and learning approaches in Biosciences?

Teaching, learning and assessment styles in the discipline are varied and adapt to changes in philosophy and technology in innovative, accessible and inclusive ways. Evidence from educational research should be used to inform teaching and learning approaches, and there is an expectation that all staff who contribute to student learning should have access to a range of educational professional development opportunities. A range of educational methods should be used, incorporating experiential, practical and formal academic practice. Educators should also consider the diversity of learning approaches at course level - for example, how module choice might impact what learning activities are available to their students across their studies. Delivery of teaching may be synchronous, asynchronous or blended. A range of delivery modes can be used including face-to-face or remote - using a range of digital tools and techniques. Self-directed study should be encouraged and supported with appropriate resources. Accessibility must be considered across all teaching and learning activity.



## How are students assessed?

The assessment of Biosciences courses includes a diverse range of methods that are accessible to disabled students and students from varying educational and cultural backgrounds within different learning situations. Where individual students may be disadvantaged by particular assessment methods, adjustments to those assessments are considered in conjunction with the provider's procedures, while ensuring fairness across the full cohort. The procedures used for assessment cover the subject knowledge (breadth and depth), abilities and skills developed through the degree course, and assessment design is aimed at alignment with teaching and learning approaches, and desired learning outcomes.

Educators may consider using a range of assessment formats (including both formative and summative) across their courses. Assessments should recognise achievement of learning outcomes and competencies, and effectively differentiate achievement at threshold and higher levels. Effective and timely feedback will enable development of students' knowledge and skills, including transferable skills. Assessments should be valid and authentic with some degree of application to the real world.



## Benchmark Standards

The minimum threshold and excellent standards that a student will have demonstrated when they are awarded an honours degree in Biosciences are outlined on **pages 18–22** of the Subject Benchmark Statement. The majority of students will perform significantly better than the minimum threshold standards. Each higher education provider has its own method of determining what appropriate evidence of this achievement will be and should refer to [Annex D: Outcome classification descriptions for FHEQ Level 6 and FQHEIS Level 10 degrees](#). This Annex sets out common descriptions of the four main degree outcome classifications for bachelor's degrees with honours – 1st, 2.1, 2.2 and 3rd.

The full statement was developed by subject experts drawn from across the sector. Details of the Advisory Group can be found on **page 24** of the full Statement.

Subject Benchmark Statements are published in QAA's capacity as an expert quality body on behalf of the higher education sector.

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### Read the full Subject Benchmark Statement

The [full Subject Benchmark Statement](#) is available on the QAA website.



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