

Department of Life Sciences

Competence Standards for MSc & MRes Programmes

We aim to provide the widest practicable access to our Masters programmes and appreciate that it is not possible to anticipate all circumstances. If it is possible to mitigate the impact of a disability by making a reasonable adjustment to our procedures, then we will make every effort to implement this with due consideration to ensuring fairness to all students and ensuring that all health and safety concerns are met. Therefore, the inability to meet one of the competency standards due to disability does not necessarily preclude entry to a given programme but rather initiates a dialogue between the potential applicant, the College's disability officer and the Department.

Competence Standard	Outcome
Ability to attend lectures, seminars and workshops	Knowledge base extending well beyond the directly taught programme
Ability to observe, undertake the measurement of research data and to accurately record research data in laboratories using appropriate equipment; this will include recording and manipulating measurements and data accurately in notebooks or in other appropriate forms in the laboratory. Notes and data recording will be either in hard copy or electronic.	Knowledge of the modern methods, materials, procedures, and the operation of equipment used in biosciences laboratory work.
Ability to use appropriate laboratory equipment competently and safely (following appropriate training); ability to use chemicals and other laboratory consumables competently and safely (following appropriate training); to safely perform physical activity, whether individually or in a group of two students or more.	Knowledge of the operation, maintenance, and safe use of specialized biomedical laboratory equipment; and of the function and safe use of specialized biomedical laboratory consumables. Knowledge of the health and safety regulations as they affect biosciences projects and field studies, record keeping, etc.
Ability to conduct fieldwork, in the UK or overseas, and use appropriate field equipment competently and safely (following appropriate training); to safely perform physical activity, whether individually or in a group of two students or more.	Knowledge of the operation, maintenance, and safe use of specialised field equipment (incl. animal traps); and of the function and safe use of specialised field consumables. Knowledge of the health and safety regulations and field protocols (including, but not restricted to, DEFRA import and export permits, CITES permits, field research permits), necessary vaccination, travel regulations (incl. travel advice from the Foreign and Commonwealth Office) as they affect fieldwork and field experiments.

Ability to prepare, process, and interpret data using appropriate techniques.	Knowledge of the processes and techniques required in statistical and numerical methods that may be used to analyse and determine the accuracy and appropriateness of data.
Ability to obtain necessary data from scientific and technical documents, reports, and other reference materials to document proposals or theories, seek out alternate procedures, devise creative and effective solutions and to evaluate their use in increasingly unpredictable contexts.	Knowledge of computer software for analysing research data and writing reports.
Ability to form logical, reasonable conclusions and make sound recommendations based on available and new biosciences research data.	Knowledge of the current principles, practices, literature, and trends in theoretical and laboratory biosciences.
Ability to express ideas effectively, both orally and written, in a variety of settings including group work. Ability to present written technical reports to others, and to make oral presentations to a variety of groups. Ability to write group or individual technical reports up to a standard that may be considered for publication in professional journals.	Knowledge of a variety of methods of communicating scientific information to a range of audiences in written and oral form.
Ability to respond to written material, critically, effectively and efficiently.	Knowledge of the processes of synthesis and critical evaluation of scientific information.
Ability to undertake work with high level of initiative and commitment to the task in hand.	Knowledge of the general principles and practices of professional codes of conduct.
Ability to contribute fully in a range of roles both individually and as part of a team, recognise and respect the contributions of other team members to promote successful team work.	Knowledge of the type of roles, adaptability and flexibility that is required to perform effectively in a variety of settings.
Ability to exercise self-learning.	Knowledge that extends beyond a formal taught programme.
Where appropriate, the ability to undertake extensive field trips in the UK or abroad.	Knowledge of specialised aspects of research in biosciences involving data collection in the field.
Knowledge of the general principles and practices of professional codes of conduct.	Ability to work in and contribute to the sector.
Full awareness of health and safety procedures in the laboratory or in the field.	Ability to work safely, minimising risk to self and others.