



Student project work – guidelines for work with biological agents and materials

The University has guidance for academic supervisors and others supervising academic work (GUIDANCE/30/SHSR/12), which clarifies responsibilities and provides information for those supervising the work of postgraduate students, undergraduate students and other academic staff members. This guidance note provides additional information for those supervising undergraduate practicals or final year projects involving the handling of biological agents and materials.

Undergraduate students should be considered inexperienced laboratory workers, with limited skills. They will usually require close supervision.

Assessment and type of work

Risk assessments

Where a student is assigned a project there must be a risk assessment in place for that piece of work. Students should be made aware of the risks inherent in the work, and the control measures put in place to reduce these risks to an acceptable level. This can simply take the form of a short, written statement of the risks involved, the correct procedures to follow to minimise risk, and the correct accident procedure to follow. This should be reinforced verbally during practical work.

Training

Students will need basic instruction in laboratory techniques or the use of equipment, and a fundamental level of understanding is required before they are allowed to proceed.

Work with micro-organisms

Wherever possible, students should handle Hazard Group 1 agents. HG2 agents present an infection risk, and where HG2 agents are used the students should be closely supervised, and should be able to call on a member of staff should an accident occur.

GM work

Students should, wherever possible, only handle Class 1 Genetically Modified Microorganisms. Class 2 work presents a greater hazard, and supervision should be increased, with clear emergency procedures to be followed in the event of a spill or personal exposure.

It should be noted that the regulations covering GM work are very prescriptive, and accidents involving the release of, or exposure to, Class 2 GMMs may need to be reported to the Health and Safety Executive.

Other issues

Out of hours working

Depending on the nature of the work being undertaken, undergraduate students should not work out of hours without supervision from an appropriate individual. Risk assessment should determine the level of supervision required, whether it should be provided by a salaried member of staff, or whether alternative arrangements are acceptable under the conditions of work. Where it is decided that supervision by a salaried member of staff is not necessary the proposed arrangements should be signed off by the Head of School or by an authorised deputy.

Work with animals

Where a student is to work with animals, they should undertake the appropriate Home Office module on animal handling, and be placed under health surveillance for laboratory animal allergens. Health surveillance is provided by the University Occupational Health Service.

HBV vaccination

Undergraduates should work with screened blood **wherever possible**.

The policy of the University's Advisory Group on Biological Hazards is to discourage the handling of unscreened human blood by undergraduate students in view of the consequences of exposure to infection. This includes taking fingerprick samples in a large practical class. An exception is made in the case of medical and dental students, provided there is adequate safety instruction and risks are reduced to the minimum that is reasonably practicable.

HBV immunisation should be considered if the project could potentially involve handling unscreened human blood or tissue, and where there is sufficient time for the student to undergo immunisation. This involves 3 separate vaccinations, at one month intervals, followed by a blood test for seroconversion. If it is not possible to begin the immunisation process four months in advance of the project to ensure completion of the course, immunisation should not be offered. Instead, the controls must be shown to be robust and effective and in the event of a puncture wound or splash to mucous membrane advice should be sought from the Occupational Health Unit and post exposure prophylaxis administered promptly.

Emergency arrangements

Undergraduates should be made aware of the University sharps/splashes policy and the procedure for treatment in the event of an exposure to potentially infectious materials. They should know where to seek immediate advice in the event of an accident.