

32. HEALTH & SAFETY TRAINING

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32.2.1 Aim: To summarise health and safety-related training policies, arrangements and provisions as these apply within the Edinburgh bioQuarter campus.

32.3.1 Introduction: Full compliance with the health and safety arrangements set out in this Manual and in various local rules *etc*, and awareness of continually evolving health and safety standards, dictates some need for the provision of training and continuous professional development opportunities on the part of staff and students.

32.4.1 Training Needs Analyses: Line managers are encouraged to set out initial and continuation training requirements for each newly appointed member of staff, as soon as possible after they first take up their post, including laboratory and office-based workers, support staff and post-graduate students, specifying which courses should be attended and what other training should be undertaken. The degree to which prescribed training needs are being addressed should be reviewed on a regular basis in the form of a discussion between the relevant line manager and those acting under that person's direction, not least to ensure that mandatory training has been completed within a satisfactory timescale.

32.5.1 Induction Training: University staff and students newly arriving on the Edinburgh bioQuarter campus *must* attend an induction safety presentation, delivered by the H&S manager for University buildings on the Edinburgh bioQuarter campus, as soon as possible after taking up post; this is in addition to any more local training that may be being provided within specific areas (see Paragraph 33.5.3).

32.5.2 Induction training, both for those who will mainly be laboratory-based and those who predominantly will be based within offices, is provided at approximately fortnightly intervals throughout the year, and certificates of attendance are issued for personal training records; this is led by the Health & Safety Manager for University buildings on the Edinburgh bioQuarter campus.

32.5.3 Induction training must also be provided at laboratory level to ensure that new starts are quickly apprised of all relevant local rules and emergency procedures; this is usually led by laboratory managers for each area, and should include a walk-around tour of the area where workers will be based (pointing out fire escape routes and exits, evacuation assembly points *etc*, introduction to colleagues, location of catering facilities, toilets, washrooms and lockers, *etc*).

32.5.4 Attendance at a fire safety awareness training event is mandatory for all new staff. This will be addressed initially through induction training (see 32.5.1 and 32.5.2) and thereafter refreshed by continuation training (see 32.6.1) at a frequency of not less than once every three years, but with an on-line training option being available (see <http://www.ed.ac.uk/health-safety/fire-safety/training/fire-awareness>).

32.6.1 Continuation Training: It is important that the momentum of continuous professional development is maintained throughout the period of employment for all members of staff, where awareness of changing principles of health and safety management, and acquisition of new skills with linked safety considerations, may prove to be particularly important. Indeed it may well be a requirement for continued registration with some professional bodies that individual workers be able to demonstrate continuous professional development in a wide range of areas associated with their respective professions, including matters related to health, safety and the environment. Partly to that end, a range of health and safety subject matters is offered to staff and students based within Edinburgh bioQuarter, both in the form of instructor-led, classroom-based or electronically delivered training, and several self-paced, self-taught, web-delivered training packages.

32.7.1 Centrally-Delivered Training: The Health and Safety Department provides various training courses for University employees and students. Information can be obtained from the department's web site at <http://www.ed.ac.uk/schools-departments/health-safety/training> regarding:

- training course timetables;
- details of courses that are available;
- videos *etc* that are available to borrow for training purposes; and
- computer-based training

32.7.2 Of particular importance to staff and students based in Edinburgh bioQuarter will be training related to:

- biological safety; and
- radiation safety.

32.7.3 Attendance on a fire safety presentation is mandatory for *all* new staff. Attendance on the biological and radiological safety courses is mandatory for all staff working for the first time with biological agents (including pathogens and genetically modified organisms/microorganisms), and sources of ionising and non-ionising radiation (including lasers). Exemptions may be negotiable for those who have attended suitable training at another institution if it has been to a level that satisfies University of Edinburgh requirements.

32.7.4 Training will be provided also for designated Fire Stewards, Fire Co-ordinators and First Aiders. Line managers should ensure that training for those to be given roles in safety management is updated at an appropriate frequency, consistent with legal requirements and guidelines originating within the University.

32.8.1 Locally-Delivered Training: Courses are also provided within Edinburgh bioQuarter in accordance with an agreed training needs analysis led and regularly reviewed by the Edinburgh bioQuarter Buildings Health & Safety Committee and the College's Health & Safety Manager. Courses, run several times per year, or upon request, include:

- risk assessment
- Control of Substances Hazardous to Health (COSHH)
- late and lone-working (mandatory for all those who, for whatever reason, can reasonably expect to work outside hours of expected buildings occupancy or alone for extended periods of time even during normal working hours – See Sections 9 and 10 of this Manual for definitions)
- liquid nitrogen safety (mandatory for all workers intending to enter liquid nitrogen plant rooms and/or otherwise to handle the substance)
- compressed and laboratory gases safety (mandatory for all staff intending to fit regulators to compressed gas supplies and/or manually handle compressed gas cylinders, *etc*)
- spill management
- accident investigation
- audits and safety inspections
- manual handling operations
- display screen equipment (computer workstations) safety (supplementing on-line training that is now available within the University)
- waste management
- business continuity planning
- health and safety awareness for Principal Investigators, supervisors or team leaders (mandatory for all newly appointed Principal Investigators, supervisors and team leaders).

32.9.1 On-line Training for Edinburgh bioQuarter-Based Staff: Staff and others with access to the University's intranet may access any one or more of several web-delivered, self-paced and self-taught training and awareness-raising packages at:

<https://www.ed.ac.uk/medicine-vet-medicine/staff-and-current-students/cmvm-health-and-safety/edinburgh-bioquarter/training-presentations>

these include:

- microbiological safety cabinets
- cleaning the lab
- ethidium bromide
- disinfection and sterilisation
- fire safety
- fume hoods
- gas safety

- health and safety law
- induction training
- infection control
- liquid nitrogen safety
- management of occupational road risk
- microtomes and cryostats
- mobility impairment
- pipetting safely
- risk assessment
- safety in kitchens
- safety in offices
- sharps injuries
- spill management

32.9.2 New e-training packages are, from time to time, added to the library of such training available on the College's web site, but attention is drawn to changes through intimations in Safety Bulletins that are sent electronically to everyone listed in email distribution lists for the Chancellor's Building, QMRI, CRM, ACRC and University-occupied embedded spaces located within the Infirmary and Building NINE.

32.9.3 The contents of each e-training package is periodically reviewed and may be updated on a fairly regular basis, so those who have a particular interest in the subject matter, and who wish to keep their knowledge wholly up-to-date, are advised to review relevant training packages on a regular basis. A "Last Updated" index on the opening pages will indicate the amendment status of each such package. These changes are intimated also in the site's Safety Bulletins (see Paragraphs 32.9.2 and 32.21.1 of this Section).

32.10.1 Training Records: A central training record must be kept by managers in each Centre or service, itemising courses to be attended by each current and newly recruited member of staff (induction training, fire safety, DSE safety, *etc*), and recording attendance at each event when training is completed.

32.10.2 The use of personal training records, to be held and maintained by each person working within the campus, is equally strongly encouraged, not least as this might prove to be of value to a person when transferring skills to a future employment.

32.10.3 A model for recording attendance on training courses and to itemise matters that should be addressed during induction, and in respect of continuing professional development, are set out in Appendix 7 to this Manual.

32.11.1 Mandatory and Discretionary Training: The University is not prescriptive regarding what constitutes mandatory training for health and safety, neither in terms of subject matter nor frequency of retraining, leaving that as a matter for individual Schools and Deaneries to dictate according to local circumstances and requirements. Annex A to this Section sets out a policy relating to those matters which has been agreed and adopted by the Edinburgh bioQuarter Buildings H&S Committee and endorsed by the Deans of Clinical Science and Biomedical Sciences.

32.12.1 Further Information: Updates regarding training opportunities are broadcast for the information of all staff in the form of Health & Safety Bulletins periodically sent out by email to all persons listed on distribution lists for 47 Edinburgh bioQuarter Crescent (QMRI), 49 Little France Crescent (Medical School and Chancellor's Building), 51 Little France Crescent (UofE-occupied embedded spaces within the Royal Infirmary of Edinburgh), the Centre for Regenerative Medicine (SCRM) building (including Roslin Cells Therapies and Scottish National Blood Transfusion Service personnel based within that building), the Advanced Care Research Centre (ACRC), and University departments and services located within Building NINE (*e.g.* Usher Institute and Edinburgh Clinical Trials Unit), and which are issued approximately once every month throughout the year, occasionally supplemented by "all staff" emails. Those wishing to ensure that they have access to the information contained in Health & Safety Bulletins *etc* should provide an email address to Building Secretaries.

POLICY RELATING TO MANDATORY AND DISCRETIONARY H&S TRAINING FOR UofE CMVM (EbQ CAMPUS)

At a meeting on 06th February 2017, and subsequently agreed and endorsed by the Deans of Clinical Sciences and Biomedical Sciences, the EBQ Buildings H&S Committee adopted the following as policy for training related to H&S for UofE workers on the Edinburgh bioQuarter campus:

MANDATORY FOR ALL STAFF, UNDERGRADUATE AND POST-GRADUATE STUDENTS, AND VISITING WORKERS

- Induction H&S training (includes fire safety awareness) - All lab workers, office-based workers, support staff and undergraduate students). Training provided by the H&S Manager (EbQ Campus). This is additional to local inductions led by service managers *etc*, where newly arrived people are shown fire safety features and walked through fire escape routes, *etc*.
- Three-yearly refresher/continuation training (also includes basic fire safety awareness) - All lab workers, office-based workers and support staff). Training provided by the H&S Manager (EbQ Campus).
- Fire Safety Awareness – Refreshed by three-yearly refresher/continuation training and/or by on-line training.

MANDATORY FOR ALL STAFF AND POST-GRADUATE STUDENTS, AND VISITING WORKERS (ACCORDING TO THE NATURE OF THE DUTIES TO BE PERFORMED AND/OR WORK BEING UNDERTAKEN)

- Late and Lone-Workers - All who, for whatever reason, may be present within any of our buildings on the EbQ campus after 18:00 and before 07:00 on weekdays, or at any time during weekends, UofE/public holidays *etc*, and/or for whom lone-working may be a feature of their employment (either within UofE buildings on the EbQ campus or elsewhere). Training provided by the H&S Manager (EbQ Campus).
- Health and Safety Awareness for Principal Investigators, Supervisors and Other Service Managers – All Principal Investigators, supervisors and other service managers. On-line training is the preferred medium for imparting this training, but a classroom training option is periodically offered by, and also available upon request to, the H&S Manager (EbQ Campus).
- Laboratory animal allergens (LAA)-related training – All who are expected to work within or observe work within B&VS facilities. On-line training is the preferred medium for imparting this training.
- Biosafety - All who, unless acceptable prior training has been undertaken elsewhere, will be working within any containment laboratory and have contact with pathogens, GMOs/GMMOs *etc*. On-line training covering the

introductory materials is the preferred medium, but a classroom training option is available upon request to the H&S Manager (EbQ Campus). Specialist modules will be delivered directly as classroom sessions by UofE BSU staff. A specialist module relating to CL3 safety arrangements and procedures is available for all who intend working in that specialised environment; this too is provided by the H&S Manager (EbQ Campus).

- Radiation Protection - All who, unless acceptable prior training has been undertaken elsewhere, will have contact with sources of radioactivity (ionising and/or non-ionising) *etc.* Training provided by UofE RPU.
- LN₂ Safety - All who, for whatever reason, may require to access a LN₂ plant room and/or have contact with LN₂. Training provided by the H&S Manager (EbQ Campus).
- Compressed and laboratory gases safety - All who, for whatever reason, may require to manually handle gas cylinders and/or to connect or disconnect gas regulators. Training provided by the H&S Manager (EbQ Campus).
- Display Screen Equipment – All who are expected to operate DSE equipment for more than one hour continuously at any time of day. Classroom teaching is available upon request, but the preferred medium is the *Cardinus* on-line training and risk assessment package, deliverable upon application to the H&S Manager (EbQ Campus), providing a user name, email address and staff number. A laboratory ergonomics course, including DSE operations, is available to students.
- Manual Handling Operations – All for whom manual handling is a significant element of routine duties, or for whom some extraordinary manual handling activity may from time to time be required. Classroom teaching is available upon request, but the preferred medium is the *Cardinus* on-line training and risk assessment package, deliverable upon application to the H&S Manager (EbQ Campus), providing a user name, email address and staff number. A laboratory ergonomics course, including manual handling operations, is available to students.
- First Aid - All who are asked to act as first aiders in the workplace. Training provided by UofE first aid trainer.
- Fire Stewards and Extinguisher Training - All who are asked to act as fire stewards in the workplace. Training provided by UofE FSU.
- Fire Coordinator Training - All who are asked to act as fire coordinators in the workplace. Initial training provided by UofE FSU, and refreshers by the H&S Manager (EbQ Campus).
- Fire Recovery Team Training - All who are asked to act as members of fire recovery teams in the workplace. Initial training provided by UofE FSU, and refreshers by the H&S Manager (EbQ Campus).

DISCRETIONARY/OPTIONAL TRAINING
(At the discretion of Lab Managers, PIs *etc*)

- COSHH – Parts 1-3 (including Spills Management). Training provided by the H&S Manager (EbQ Campus).

- Safety Audits and Inspections. Training provided by the H&S Manager (EbQ Campus).
- Accident Investigations. Training provided by the H&S Manager (EbQ Campus).
- Training for H&S Training Managers. Training provided by the H&S Manager (EbQ Campus).
- Business Continuity/Contingency Planning. Training provided by the H&S Manager (EbQ Campus).
- Basic Counter-Terrorism and security training for Reception and Portering Staff. Training provided by the H&S Manager (EbQ Campus).

DISCRETIONARY/OPTIONAL ON-LINE TRAINING

(At <https://www.ed.ac.uk/medicine-vet-medicine/staff-and-current-students/cmvm-health-and-safety/little-france/training-presentations>)

These packages are all downloadable *PowerPoint* presentation files:

- Autoclaves: Guidance for staff relating to the hazards and safe operation of autoclaves in biomedical laboratories.
- Biological Safety Cabinets: Guidance for lab staff regarding different types of biological safety cabinet that are available within our buildings, and measures to be adopted for their safe use.
- Centrifuges: Guidance for staff relating to the hazards and safe operation of centrifuges and ultracentrifuges in biomedical laboratories.
- Cleaning the Lab: Guidance for lab staff regarding their duties of care for cleaning staff, and guidance for cleaners regarding safety in laboratories.
- Disinfection and Decontamination: Guidance for staff relating to methods commonly used to disinfect and decontaminate surfaces, materials and waste in biomedical laboratories.
- Ethidium Bromide: Safety measures related to correct use and disposal of ethidium bromide.
- Fire Safety: A brief summary of fire safety arrangements for University buildings on the Edinburgh bioQuarter campus.
- First Aid: A brief summary of first aid arrangements for University buildings on the Edinburgh bioQuarter campus, including the correct first actions to be taken upon discovering an injured person.
- Fume Hoods: Guidance regarding the safe use of local exhaust ventilation within laboratories.
- Gas Safety: Safety measures related to the correct use and handling of compressed gas cylinders.
- Health and Safety Law: A brief summary of aspects of health and safety laws and regulations as they apply to activities within University buildings on the Edinburgh bioQuarter campus.
- Incubators: Guidance for staff relating to the hazards and safe operation of incubators in biomedical laboratories.

- Induction Training: A brief summary of safety arrangements for University buildings on the Edinburgh bioQuarter campus.
- Infection Control: Basics relating to the control of possible infection risks within University of Edinburgh biomedical laboratories on the Edinburgh bioQuarter campus
- Kitchens: Safety arrangements for kitchens within University buildings on the Edinburgh bioQuarter campus.
- Liquid Nitrogen Safety: Safety measures related to the correct use and handling of liquid nitrogen.
- Management of Occupational Road Risk: Safety arrangements for those who may be required to use a pool car or their own car for work purposes related to University buildings on the Edinburgh bioQuarter campus.
- Maternity: A brief summary of the practical implications of pregnancy as it may apply to those working within University laboratories on the Edinburgh bioQuarter campus.
- Microtomes and Cryostats: Guidance for staff relating to the hazards and safe operation of microtome and cryostat apparatus.
- Microwave Ovens: Guidance for staff relating to the hazards and safe operation of microwave ovens in biomedical laboratories.
- Mobility Impairment: Fire safety arrangements for University buildings on the Edinburgh bioQuarter campus, with particular emphasis for those who may have some degree of mobility impairment or other disability that could affect their capacity to perceive or respond appropriately to a building emergency.
- Personal Protective Equipment: Safety measures related to the correct use of the range of personal protective equipment that is commonly available within laboratories.
- Pipetting Safely: Safety measures related to pipetting within laboratories.
- Risk Assessment: A brief summary of aspects of risk assessment as it applies to activities within University buildings on the Edinburgh bioQuarter campus.
- Safety Around the EbQ Campus: Guidance for staff relating to certain hazards that are an almost constant feature of the Edinburgh bioQuarter campus, particularly pertaining to the implications of construction and maintenance activities for pedestrian, cycle and motor vehicle traffic.
- Safety in Offices: Safety arrangements for offices within University buildings on the Edinburgh bioQuarter campus.
- Sharps Injuries: Safety measures related to use of sharp items, such as hypodermic needles, within laboratories.
- Skin Protection: Safety measures for laboratory workers handling substances that have the potential to damage their skin.
- Slips and Trips: Guidance for building users regarding the potential for slip and trip injuries and some means to prevent these.
- Spill Management: The safe management of spillages within University laboratories on the Edinburgh bioQuarter campus.

- Waste Management: Guidance for staff relating to policies and procedures for waste management within Edinburgh bioQuarter, including clinical and laboratory waste, radioactive waste, cytotoxic waste, general refuse, *etc.*
- Why H&S? A justification for health and safety, and the management arrangements for University buildings on the Edinburgh bioQuarter campus.

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UofE CMVM @ Edinburgh bioQuarter
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