

## **CLOTHING REGULATIONS – FACULTY OF APPLIED SCIENCES**

A discussion has arisen in the VGWM (Safety, Health, Welfare & Environment) Committee of the Faculty of Applied Sciences (AS) about the requirements that AS sets for clothing worn by staff working in laboratories. The discussion began following an accident and undesirable situations reported by Area Supervisors.

The purpose of this document is to provide clear and unambiguous guidelines on clothing.

Delineation: Work clothing is regarded as Personal Protection Equipment (PPE). This document does not set out in full the faculty's policy for PPE. In addition to regulations for work clothing that is regarded as PPE, the document also describes a number of other items of equipment for the types of work most often carried out. (Due to the related usage of PPE items). This document is designed for Area Supervisors to use if they find that staff or students are carrying out work without sufficient protection.

Corporate clothing is a special form of PPE that is also designed for recognisability. This document does not deal with corporate clothing.

### **Purpose**

To set out the requirements relating to clothing for various types of work.

To harmonise the requirements for work clothing throughout the Faculty of Applied Science.

### **Regulations**

The PPE for each type of task is set out in the table below, along with the part of the body to be protected. Explanations are given where required.

In principle, everyone provides their own clothing, unless additional clothing or other PPE is required on a structural basis. In principle, additional clothing and PPE for staff are paid for by the employer. Students are required to purchase a package consisting of a lab coat and safety glasses. If students have to use specific PPE (e.g. for a laboratory experiment), this is provided.

Work clothing should not be bought until the Departmental Safety Officer (DSO) has been consulted.

<b>Task</b>	<b>Area to be protected</b>	<b>Equipment</b>	<b>Personal / Provided at location</b>	<b>Notes</b>
Wet and/or chemical and biochemical work	Trunk, arms and legs	Lab coat, or disposable overall or apron, and long trousers or long skirt (not floor-length)	Personal	Excludes work involving water (Protect bare lower legs, e.g. with boots or shin guards) Own long trousers or long skirt.
	Feet	Sturdy closed-toe shoes or boots	Personal	No high heels. Own shoes or boots.
	Eyes	Safety glasses or cover spectacles	Personal. Glasses are provided for visitors	If necessary, use a face shield when transferring between containers
	Hands	Suitable (disposable) gloves	Personal	
	Lungs	Breathing apparatus when working with larger volumes outside the fume cupboard	Personal	When working with volatile substances and powders with an exposure risk
Cryogenic liquids	Trunk, arms and legs	Lab coat, apron or overall	Available at location	
	Feet	Closed-toe shoes or boots	Personal	No high heels. Own shoes or boots.
	Face and eyes	Face shield	Available at location	
	Hands	Suitable gloves	Available at location	
Machine work	Trunk, arms and legs	Work coat or overall	Personal	
	Feet	S2 or S3 safety shoes with steel toe	Personal	
	Face and eyes	Safety glasses	Personal. Glasses are provided for visitors	
	Hands	Suitable gloves	Personal	No gloves if work involves turning
	Lungs	Breathing apparatus	Personal	If machine extraction is not sufficient and depending on the material used. If necessary, use head

<b>Task</b>	<b>Area to be protected</b>	<b>Equipment</b>	<b>Personal / Provided at location</b>	<b>Notes</b>
Welding	Trunk, arms and legs	Apron and fire-retardant overall	Available at location	
	Feet	Safety shoes (fire-resistant laces) or special welding clogs	Personal	
	Face and eyes	Welding mask or welding goggles (autogenic)	Available at location	
	Hands	Welding gloves	Available at location	
	Head	Cap	Personal	(Bare-headed? Beware of UV radiation). Depends on the welding process and type of helmet/mask system
	Lungs	Breathing apparatus	Personal	Use with welding mask/helmet if mechanical extraction is not sufficient
Heat	Trunk, arms and legs	Apron and fire-retardant overall	Available at location	
	Feet	Sturdy shoes with suitable laces	Personal	Wear own shoes for occasional work
	Face and eyes	Face shield	Available at location	If necessary, with glasses with suitable coloured lenses
	Hands	Suitable gloves	Available at location	
Laser	Eyes	Glasses with suitable coloured lenses	Available at location	N.B. Wavelength of laser
Noise	Ears	Hearing protection	Available at location	At noise levels > 80 dB(A)
Fieldwork and botanical gardens	Face	Sunglasses and sun cream	Personal	Staff/students provide these themselves for occasional work
	Head	Cap or hat	Personal	Wear own headwear for occasional work
	Body	Warm coat, slash-resistant clothing	Personal	Wear own clothes for occasional work
	Feet	Sturdy shoes or boots. Botanical gardens: S2 safety shoes	Personal	No high heels. Wear own shoes/boots for occasional fieldwork

<b>Task</b>	<b>Area to be protected</b>	<b>Equipment</b>	<b>Personal / Provided at location</b>	<b>Notes</b>
Electrical (>48V and <1000V)	Feet	S3 safety shoes	Personal	Stand on a rubber mat
	Hands	Rubber gloves	Available at location	Use insulated equipment
UV light	Upper body, arms and face	Lab coat, face shield, rubber gloves	Available at location	E.g. for cutting out protein bands
Ionising radiation				See instructions of TUD Radiation Protection Service
Biotechnological (ML1 and ML2)				See TUD Biosafety Manual
Office	Legs, back, neck, shoulders, arms and eyes	Desk at correct height. Chair properly adjusted. Computer glasses.	Available at location.  Personal	Computer glasses are paid for by the employer if the user's sight is good at 30 cm and 5 metres, but not good at 60 cm.

### **Advice**

The Departmental Safety Officer (DSO) can advise on the use of equipment. He can also advise on additional equipment.

### **Supervision**

The Area Supervisor, laboratory supervisor and immediate superior are the first-line supervisors for the use of equipment. Other line staff, the DSO and the SHE advisor are also responsible for supervision.

### **Sanctions**

1. The cost of damage resulting from the failure to use protective equipment is payable by the person who has failed to use the equipment.
2. If clothing regulations are not complied with, the Area Supervisor or Departmental Director can stop the work. It is also possible that the person(s) concerned will be refused admission to the room in question.
3. A student or staff member who is of the opinion that he/she cannot carry out work is entitled to suspend the work (assigned task). This should be reported immediately to the Departmental Director.

### **Provision of equipment**

Items denoted as 'Personal' are provided free of charge to staff.

Equipment denoted as 'Available at location' is provided by the relevant AS department. Students provide the items denoted as 'Personal' (e.g. safety glasses, a lab coat or overall, clothing and sturdy closed-toe shoes).

### **Budget**

The departments have a budget for safety equipment.

A decision can also be taken to make budget allocations to research groups.

Where applicable, students are responsible for purchasing additional clothing and PPE. Lab coats and safety glasses are available at a special price.

### **Visitors**

The host is responsible for looking after visitors and ensuring that equipment is provided.

### **Cleaners**

The materials required depend on the work carried out in the room and the time of day at which cleaning is done. The DSO can advise on the materials to be used. The cleaner's employer is responsible for purchasing cleaning materials and supervising their use. Failure to comply with advice and instructions for use will result in the measures described under 'Sanctions'.

### Extra information

- 'Chemiekaarten' (chemical safety cards) and Material Safety Data Sheets (MSDS) provide information about PPE.
- Via a TU PC it is possible to access Chemwatch ([www.chemwatch.com](http://www.chemwatch.com)), a database with MSDS and chemical cards (<http://chemiekaarten.sdu.nl/chkonline/>).
- The following are of use when choosing PPE: *Praktijkgids Arbeidsveiligheid* published by Kluwer (the DSO has a copy for inspection) and the *Arboinformatieblad Persoonlijke Beschermingsmiddelen*, a guide to PPE, which can be downloaded from the BTUD site, <http://aibladen.sdu.nl/do/welkom>.

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