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HEALTH AND SAFETY HANDBOOK

Students

Laboratories

Ergonomics

Emergency

Accidents

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OCCUPATIONAL HEALTH AND SAFETY POLICY STATEMENT

Governing Council Agreement number 150/2009, approving the UPC's occupational health and safety policy

Document approved by the Governing Council on 23 July 2009

Objective

To raise the level of health and safety of the university community through the integration of occupational risk prevention in the UPC's activities and decisions and the assignment of roles and responsibilities at all hierarchical and organisational levels, including appropriate training and information.

Principles

To fulfil this objective, the Universitat Politècnica de Catalunya follows legal, social and ethical principles with full respect for the dignity of persons and the entire university community accepts the duty of shared responsibility.

Commitments

In keeping with these principles, the Universitat Politècnica de Catalunya is committed to the following:

1. To train and inform all teaching, research and administrative staff in the exercise of their duties and responsibilities in occupational risk prevention and the preventive measures that must be adopted and implemented.
2. To promote the participation and consultation of the university community in the continuous improvement of working conditions.
3. To periodically assess the risks stemming from work.
4. To assign resources to guarantee compliance with prevailing legislation on occupational risk prevention.
5. To oblige suppliers, concessions and services to comply with the regulations on occupational risk prevention.
6. To ensure emergencies are properly managed so that their effects on the health and safety of the university community are minimised.
7. To ensure proper health surveillance and promotion for individuals' well-being.
8. To prevent any behaviour that undermines a person's dignity and any type of harassment.

LABORATORY AND WORKSHOP SAFETY

In **laboratory practicals**, workshops or field work, follow the instructions of the lecturer, who is responsible for your health and safety. Ask the lecturer if any doubt arises and do not put your own safety or the safety of your fellow students at risk.

At the laboratory or workshop:

Respect safety signs.

Locate emergency equipment such as fire extinguishers, safety showers and eyewash fountains.

Protect yourself with the personal protective equipment (PPE) indicated by the lecturer.

Consult the safety labels prior to using a chemical product.

Follow the laboratory's safety rules and instructions.

The lecturer will inform you of the rules for each laboratory or workshop.

If in doubt, ask the lecturer for guidelines on working safely.

Safety signs

Warning		Mandatory		Prohibition		Emergency	
							
RISC ELECTRIC	SUPERFICIE CALENTA	ÚS OBLIGATORI DE PROTECTORS OCULARS	ÚS OBLIGATORI DE GUANTS DE PROTECCIÓ	ENTRADA PROHIBIDA A PERSONES NO AUTORITZADES	NO TOCAR	SORTIDA D'EMERGÈNCIA	EXTINTOR

Personal Protective Equipment (PPE)

Personal protective equipment (PPE) ensures that **you are properly protected** in laboratory classes.

As a matter of routine, use the following PPE:

- ✓ **Safety glasses**, which are required when there is a likelihood of chemical splash or when flying particles are generated in mechanical operations. Contact lenses must not be worn as they can cause eye injuries in the event of splashes.
- ✓ **Protective gloves**, which prevent cuts from mechanical operations and burns while handling chemicals.
- ✓ **Other types of PPE** such as respirators, electrical protection gloves, etc. The lecturer will inform you of the specific PPE that is required for each type of practical.



Safety glasses



Mechanical protection gloves



Chemical protection gloves

It is compulsory to wear a **cotton laboratory coat** during practicals.

To buy them, see

<http://www.upc-shop.com/equips-proteccio-individual>

Safety labels

Reagent bottles have **pictograms and phrases** that provide information on their danger, how to use them correctly and the measures that must be taken in the case of accident by ingestion, inhalation or other means.

Pictogrames de perill



Paraula d'advertència: perill
 Identificació de perill:
 H225: líquid i vapors molt inflamables.
 H319: provoca irritació ocular greu.
 H336: pot provocar somnolència i vertigen.
 EUH066: l'exposició repetida pot provocar sequedat o formació d'esquerdes a la pell.

Consells de prudència: Prevenció
 P210: mantenir allunyat de fonts de calor, espumes, flama oberta o superfícies calentes –no fumar.
 P305+P351+P338: en cas de contacte amb els ulls, rentar-los amb molta cura durant uns minuts.
 Treure les lents de contacte, en el cas de portar-ne i que sigui fàcil fer-ho. Continuar rentant-los.

Consells de prudència: eliminació
 P501: eliminar el recipient mitjançant un gestor autoritzat.

Informació suplementària.

Identificador de producte (núm. CAS i denominació IUPAC o comercial).

Quantitat nominal de la substància o barreja.

Nom de proveïdor:
 Adreça:
 Telèfon:

← Identificació de perill

← Consells de prudència prevenció

← Consells de prudència resposta

← Consells de prudència eliminació


 EXPLOSIU


 INFLAMABLE


 COMBURENT


 TÒXIC


 IRRITANT
 SENSIBILITZANT


 GASOS


 CORROSIU


 PERILL PER A
 LA SALUT


 PERILL PER AL
 MEDI AMBIENT

Additionally, chemical products have a **Safety Data Sheet (SDS)** that provides complementary information to that contained on the label, in order to follow the necessary protection measures.

Health and safety regulations

Health and safety regulations are the main measures that must be adopted to ensure workers' safety while they are working with equipment and to protect workers from exposure to pollutants of a chemical, physical (noise, vibrations, thermal environment, radiation, etc.) or biological nature by eliminating, reducing and controlling these pollutants.

If in doubt, consult to the lecturer.

ERGONOMIC RECOMMENDATIONS

To and from the University

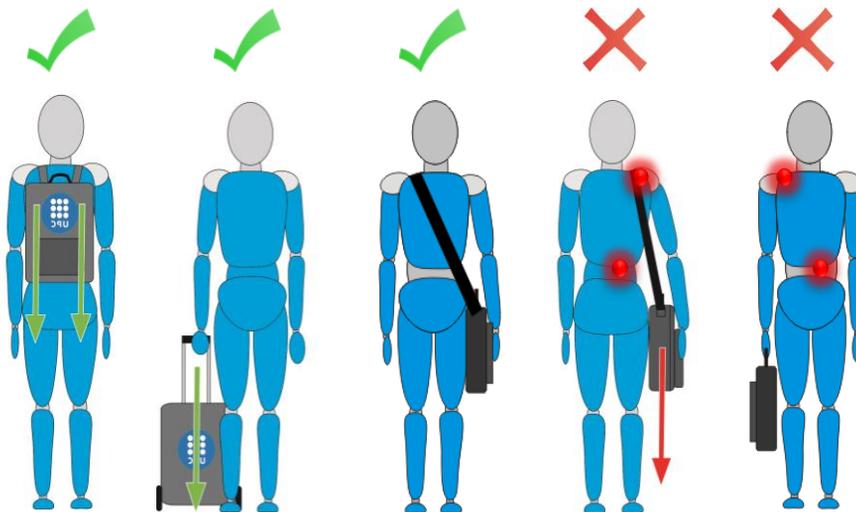
A **backpack** is the best option for transporting materials such as folders and books and computer devices such as laptops.

- **The load's centre of gravity is close to the body.**
- **The load is well balanced.**



Further recommendations

- Use **both handles of the backpack** to distribute the weight evenly.
- **Do not overload your backpack or shoulder bag.** Avoid carrying more than 10% of your body weight.
- If you use a **trolley bag**, change arms regularly.
- If you need to carry weight below hip-level, **bend your knees** and keep your back straight.

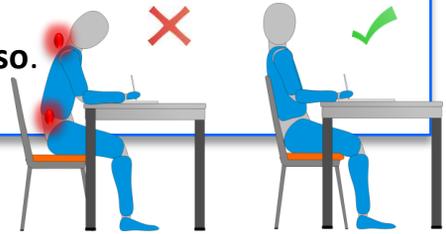


ERGONOMIC RECOMMENDATIONS

In class/at the library

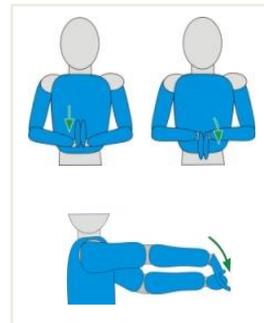
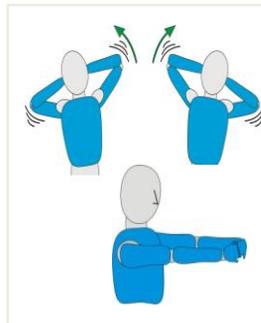
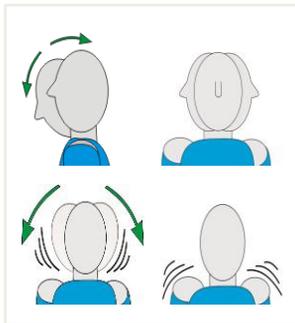
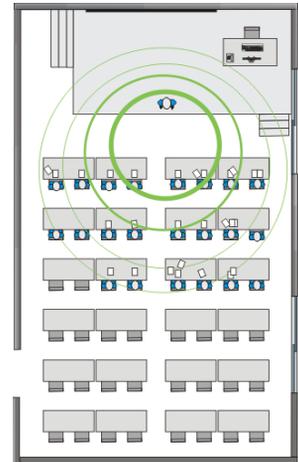
Whenever you have to sit for long periods of time, make sure:

- **Your back is supported.**
- **Your head and neck are in line with your torso.**
- **Your arms rest on the table.**



Further recommendations

- **Sit in the front seats** to ensure that you do not have to strain to see the board or hear the lecturer.
- To prevent background noise, **avoid talking** to other students in class and **silence your phone** and any other devices.
- **Change position** (get up and move) between classes.
- Take **short breaks** to relax your muscles (between classes or when you are carrying out a task in which you do not move).
- Do muscle **relaxation exercises**.



ERGONOMIC RECOMMENDATIONS

Studying with a desktop computer

Whenever possible, use a desktop computer



DESKTOP COMPUTER

When you use a desktop computer for **long periods of time**:

- 1 Ensure the **monitor** is **directly in front of you**.
- 2 **Make room** in front of the keyboard for **your arms** (at least 10 cm).
- 3 Ensure that the **distance from your eyes to the screen** is approx. **60-70 cm**.
- 4

Ensure the top of the **monitor** is **at or just below eye level**.

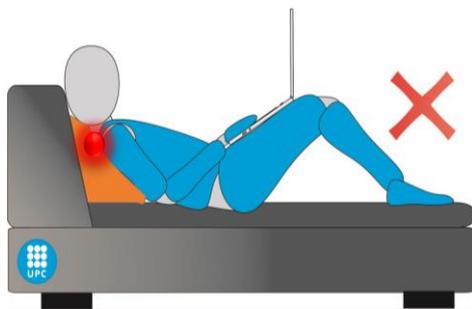
Controls contrast and brightness



Studying with a laptop

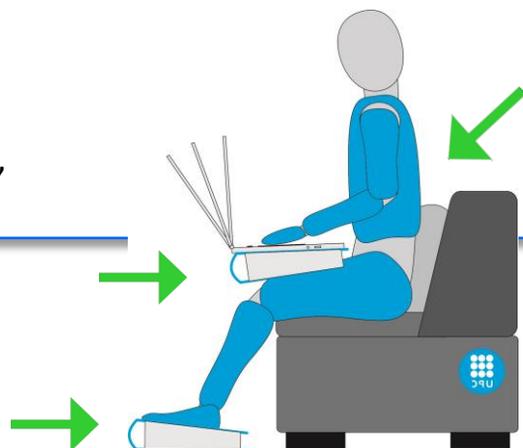
When you use a laptop **for long periods of time**:

- **Adapt the laptop** to ensure correct posture.
 - Connect an external keyboard and mouse.
 - Place the monitor at a height that does not force you to extend or bend your neck. If necessary use a laptop stand.
- Avoid **awkward positions**.



If you use it **occasionally**:

- **Support the laptop.**
- **Support your back.**
- **Adjust the angle of the screen.**
- If your feet do not reach the ground, find an object on which to rest them.



EMERGENCY INFORMATION

How you can help to prevent an emergency



Computer classrooms

- ✓ Turn off computers and screens at the end of a class.



Laboratories

- ✓ Follow the lecturer's instructions.
- ✓ Follow the script for the practicals to ensure they are carried out safely.
- ✓ Check with your lecturer if you have a question about your safety.



Remember

- ✓ Smoking is prohibited in UPC buildings.

Learn what emergency signs mean

Evacuation



Standard exit route



Standard exit



Emergency exit route



Emergency exit

Fire



Fire extinguisher



Fire hose reel



Fire-alarm call point



Fire door

Laboratories



Emergency shower



Eyewash fountain

WHAT TO DO IN THE CASE OF AN ACCIDENT

Students aged 28 or under

All students aged 28 or under (taking bachelor's, master's or doctoral degrees) are automatically covered by compulsory school insurance from the moment they enrol.

If you have an accident, ask a lecturer, receptionist or administrative officer for assistance.

For further information on healthcare centres, application procedures and forms and the benefits of compulsory school insurance, see <http://www.upc.edu/sga/es/matricula-e/seguros>

WHAT TO DO IN THE CASE OF AN ACCIDENT

UPC grantholders

If you have an accident while on a grant, you must inform the lecturer in charge of the grant. He or she will prepare the **healthcare application form**.

The healthcare application form is compulsory if you are to receive care from the UPC's Mutual Collaborator with Social Security .

When you arrive at the healthcare centre it is very important that you provide your **ID card or passport** and inform them that you are a grantholder at the **Universitat Politècnica de Catalunya**. Make sure you have a signed copy of the **HEALTHCARE APPLICATION FORM** with you.

For further information, check the healthcare network for the UPC:
<https://www.upc.edu/prevencio/ca/accidents>

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UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH

Servei de Prevenció de Riscos Laborals

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