

# **FIRAT UNIVERSITY VETERINARY FACULTY**



## **STUDENT LABORATORY SAFETY GUIDE**





## **PURPOSE**

**Article 1-** (1) Firat University Faculty of Veterinary Medicine aims to ensure the safety of those in the Student Laboratories and the rules to be followed in the laboratories. It aims to ensure the safety of students against risks related to exposure to biological or chemical substances and injuries that may occur while working in the laboratory, and to prevent environmental contamination and damages that may occur.

## **SCOPE**

**Article 2-** (1) This guideline covers the biosafety rules to be followed in Firat University Faculty of Veterinary Medicine Student Laboratories.

### **Rules to be Followed in the Use of Laboratory Instruments and Equipment**

- a) Laboratory instruments and equipment may only be used by the relevant laboratory staff.
- b) Students and postgraduate students cannot use the tools alone, they use these tools and equipment under the supervision of laboratory staff.
- c) Students other than laboratory staff should read the instructions for use before using tools and equipment.
- d) Unauthorized experiments should not be carried out in the laboratory, and no device that is not trained or allowed to be used should not be used.
- e) Every material, tool or device used must be cleaned in accordance with the method and put away.
- f) No substances or materials should be taken out of the laboratory without the permission of the people managing the laboratory.

### **Rules to be Followed for Safe Working in the Laboratory**

- a) The physical condition of the laboratory should be well defined and how to act in case of danger should be determined in advance.
- b) The presence of explosive, flammable, combustible, caustic and biological substances in the working environment should be checked and necessary precautions should be taken.
- c) Laboratory goggles, gloves, protective aprons and face masks must be worn when handling hazardous materials and/or equipment.
- d) A bottle of a chemical in the laboratory should never be inhaled or tasted without reading the label.
- e) In case of spillage of any infectious material or chemical, protective gloves should be worn, wiped with cotton towel etc. and disposed of in the medical waste or solid chemical waste bin.
- f) After direct contact with any substance, hands should be washed according to the "EI Washing Instruction" and disinfected with hand antiseptic when leaving the laboratory.
- g) It is forbidden to enter the laboratory without wearing an apron. It is forbidden to bring personal belongings such as coats, jackets, bags, etc. to the laboratory and take them out of the dressing room.



- h) Comfortable and flat shoes with closed fronts should be worn in the laboratory and shoes with open toes and/or edges or heels should not be worn.
- i) Since long hair and dangling jewelry can cause danger in the laboratory environment, long hair should be pulled back and dangling jewelry should be removed.
- j) The lab coat is removed when leaving the working environment. Do not go out with this apron.
- k) It is forbidden to eat, drink and use laboratory equipment for this purpose in the laboratory.
- l) With their hands paper, pencils and other laboratory equipment should not be applied to the mouth. If there is a wound or cut on the hand, it should be covered with waterproof tape.
- m) A special notebook should be kept for laboratory work. Studies and observations must be recorded.
- n) Water, gas taps and electrical switches should not be tampered with and should be turned off when not in use.
- o) No noise should be made in the laboratory considering that others are also working.
- p) Do not sit on the laboratory tables.
- q) There should be no other items on the desk other than necessary materials. Bags etc. should not be placed.

#### **Measures to be taken against Chemical Substances in the Laboratory Environment (Annex-1)**

- a) "Firat University Veterinary Faculty Waste Management Plan" is applied to all hazardous medical and chemical wastes.
- b) Since all chemicals in the laboratory contain hazards, they should never be touched and smelled with bare hands.
- c) The pipette used to pick up one chemical should not be dipped into a different bottle of chemical.
- d) Chemicals containing acid should be added to water slowly. Water should never be added over the acid.
- e) Devices such as bulbs etc. should be used when drawing liquids with a pipette, and chemicals should never be drawn by mouth.
- f) Chemicals should never be spilled in sinks and other places.
- g) Chemical substances should never be taken out of the laboratory.
- h) Acids such as sulfuric acid, nitric acid, hydrochloric acid and substances containing toxic gases such as ethidium bromide, hydrogen sulfide, hydrogen cyanide, hydrogen cyanide, chloride should be worked with in a fume hood.

#### **PRECAUTIONS TO BE TAKEN IN CASE OF CONTAMINATION**

This article contains precautions to be taken in case of chemical, infectious and biological contamination.

**Precautions to be taken in case of chemical contamination**

- a) The bottle/container containing the chemical should be placed upright and the cap should be closed.
- b) In case of a large chemical spill, open the window, leave the room and avoid inhaling the vapors of the spilled chemical.
- c) In case of chemical splashes in the eye, the eye should be washed immediately with an eye shower, the eyelid should be forced open and the eye should be washed with water or eye cleansing liquid for at least 15 minutes.
- d) During washing, the eyelids should be opened with the fingers and the pupil should be moved in different directions to spread the water all over.
- e) Contact lenses, if present, should be removed immediately for washing effectiveness.
- f) Both eyes should be covered with a sterile or clean bandage.
- g) In case of chemical splashes on the skin, contaminated clothing should be removed immediately and placed in a sealed bag and tightly closed.
- h) If a chemical is swallowed, the mouth should be rinsed immediately.
- i) Medical assistance should be sought in all cases.

**Precautions to be taken in the event of an infected chemical spill**

- a) Gloves are worn, the spilled material is removed with a napkin (cotton, gauze) and disposed of in the appropriate waste container (See "Firat University Faculty of Veterinary Medicine Waste Management Plan").
- b) Glass shards and sharps should be disposed of in the medical waste container.

**Measures to be taken against infectious and infected materials in the laboratory environment**

- a) Blood and other body fluids from animals should be considered potentially infected and treated accordingly.
- b) If hands or other skin surfaces become contaminated with the animal's blood or other body fluids, they should be washed immediately with soap and water.
- c) All sharps should only be disposed of in the "sharps box". To prevent needle sticks, disposable needles should not be reinserted into their plastic sheaths after use. Needles should not be removed from the syringe, and needles should not be bent or twisted.

**Precautions to be taken in case of biological spillage and spillage**

- a) If the biological agent is liquid, it should not come into contact with the spilled liquid and the spill should be surrounded with a paper towel to prevent further spread of the liquid.
- b) Glass materials broken during the spillage of biological agents are carefully collected with forceps and placed in the sharps waste bucket.







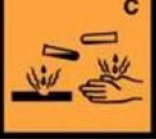
**WHAT TO DO AGAINST ACCIDENTS AND INJURIES THAT MAY OCCUR IN THE LABORATORY**

This article contains the rules to be followed against accidents and injuries that may occur in Student Laboratories.

**Precautions Against Cutting-Piercing Injuries;**

- If cutting and piercing instruments must be used, necessary precautions must be taken. Injector tips should not be removed by hand, twisted and the cap should not be resealed.
- Sharps must be disposed of in puncture and leak-proof sharps waste containers

**ANNEX.1. SYMBOLS AND SIGNS ON HAZARDOUS SUBSTANCE LABELS AND PRECAUTIONS TO BE TAKEN**

<b>Toxic Substance (T)</b>	 T	This symbol indicates substances that can cause acute or chronic health damage when ingested, inhaled, or absorbed through the skin, and are labeled as "toxic."
<b>Highly Toxic Substance (T+)</b>	 T+	This symbol marks substances with acute or chronic harmful effects as described above but at a much higher concern level. Such substances should never come into contact with the human body.
<b>Harmful Substance (Xn)</b>	 Xn	This symbol is used for substances that can cause "health damage" through ingestion, inhalation, or absorption and are potentially harmful.
<b>Irritant Substance (Xi)</b>	 Xi	This symbol indicates substances that may cause skin and/or respiratory tract irritation upon short-term or prolonged exposure.
<b>Easily Flammable Substance (F)</b>	 F	This symbol represents materials with a flash point below 21 °C, indicating easily flammable liquids or highly combustible substances.
<b>Extremely Flammable Substance (F+)</b>	 F+	This symbol applies to substances with a flash point below 0 °C and a boiling point below 35 °C, as well as highly flammable gases that can ignite even at atmospheric pressure.
<b>Corrosive Substance (C)</b>	 C	This symbol identifies chemicals with corrosive properties that can cause damage to living tissues.



### STUDENT LABORATORY SAFETY RULES NOTIFICATION FORM

This form should be filled out by the students who will work in the laboratories of the Department or participate in the Application courses (laboratory) and given to the responsible instructor. (A copy of this form should be kept in the student's/researcher's laboratory file)

Name : .....

Surname : .....

Student Number : .....

	YES	NO
I have read and understood the laboratory safety rules procedure.		
I know my responsibilities regarding laboratory safety.		
I know I shouldn't do any experiments without permission.		
I agree to follow all safety procedures shown to me by the laboratory supervisor.		
Laboratory when I need to work outside of class hours I know I have to inform the person in charge.		
I know that you should never work in the laboratory without a lab coat, long hair should be tied up and closed shoes should be worn.		
I know not to taste or smell any chemicals.		
I know that all waste must be separated according to the waste regulations.		
I know that all damaged or broken equipment must be reported immediately to the laboratory supervisor.		
I know that I must use the necessary protective equipment such as apron, gloves, goggles and mask.		
I know that I should not bring food or drink into the lab and that there is no smoking.		
I know that if I do not comply with the laboratory rules, I will receive a written warning and will be removed from the laboratory.		
I was informed about what to do in case of emergency.		
I declare that the laboratory is not responsible for any material and moral damages that may occur if I do not comply with the rules and that I know and accept that I will be compensated.		

DATE

:SIGNATURE: