



6. FOOD SCIENCE AND VETERINARY PUBLIC HEALTH: OFF-CAMPUS ACTIVITIES

6.1. Introduction

- This document describes routine procedures intended to minimize:
 - The risk of transmission of zoonotic agents by students and teaching and non-teaching staff from various facilities where they may be in contact with food-producing animals, poultry, companion animals, or contaminated food.
 - The potential risk of infection by zoonotic agents transmitted by animals or contaminated food products during teaching activities carried out at those facilities.
- The facilities include farms, dairy farms, pig farms, slaughterhouses, food processing units, collective catering establishments, the municipal dog and cat shelter, and other facilities where animals, food products, or unprocessed animal tissues, secretions or excretions (e.g., saliva), manure, urine, contaminated feed, dirty bedding, water, dirt, and milk may be present.
- Students visit several food industries as part of practical training in quality control and food safety. They also receive training in food processing in on-campus facilities, where general personal hygiene rules apply.
- Visits are organized for students to the following facilities: red meat and poultry slaughterhouses and their cutting rooms, rabbit slaughterhouses, fish markets and fish retail facilities, egg inspection and grading centers, honey extraction centers, meat, fish, and poultry processing industries, collective catering establishments, and the municipal dog and cat shelter.
- During visits to slaughterhouses, students closely observe official inspection tasks carried out on slaughter lines and perform detailed inspection of carcasses rejected by official veterinarians.
- During visits to other food sector establishments, students may come into contact with unprocessed food products originating from primary production farms.
- During visits to the municipal dog and cat shelter, students may come into contact with several animal species. Most animals are previously tested for zoonotic diseases, but recently admitted animals may carry infectious diseases.
- Students receive specific instructions before each visit and complete a questionnaire regarding their health status (medical history).

Poster 8 summarizes the instructions that students must follow whenever they have off-campus practical activities in Food Safety and Technology, Sanitary Inspection, and Veterinary Public Health. This poster is displayed in the entrance hall of the Food Safety and Technology Laboratory and in the Garage.



Poster 8

Instructions for students regarding the Standard Operating Biosafety Procedures in force during off-campus practical classes in Food Safety and Technology, Sanitary Inspection, and Veterinary Public Health



FOOD SAFETY AND TECHNOLOGY OF PRODUCTS OF ANIMAL ORIGIN, SANITARY INSPECTION AND VETERINARY PUBLIC HEALTH

INSTRUCTIONS FOR STUDENTS

1. OFF-CAMPUS PRACTICAL CLASSES:

- a) Store your belongings in a locker in the General Changing Room and lock it with your padlock.
- b) Tie back long hair.
- c) Bring a backpack containing your white cotton lab coat and white rubber boots, a water bottle, and a small meal in a thermal lunchbox.
- d) Go to the Garage located on the ground floor of Building D and enter a vehicle (e.g., Veterinary Public Health practical class at Casa dos Animais de Lisboa) or go to the FMV gate and board the bus (e.g., Sanitary Inspection practical class at a slaughterhouse).
- e) Upon arrival at the facility to be visited (e.g., slaughterhouse, food industry, Casa dos Animais de Lisboa, etc.), leave the vehicle and follow the instructors.
- f) In the facility's changing room, put on your white lab coat, wear a disposable apron, put on your white rubber boots and cover them with disposable boot covers.
- g) Comply with all biosafety measures in force at the facility, e.g., hand disinfection, stepping on disinfectant footbaths, passing through sanitary barriers.
- h) At the end of the practical class, go to the facility's changing room. Remove your boots and put on your shoes. Remove your lab coat. Store the coat and boots in a clean bag in your backpack. Dispose of disposable aprons and boot covers in the appropriate bins. Wash and disinfect your hands.
- i) Leave the facility and enter the vehicle.
- j) Upon arrival at the FMV Garage, assist instructors in washing the wheels and chassis of the vehicle.

2. ON-CAMPUS PRACTICAL CLASSES:

- a) Follow the biosafety rules specific to the teaching space (e.g., the Pathology Room during Sanitary Inspection practical classes).
- b) If in doubt, read the QR Code on the posters displayed at the entrance to the various teaching spaces.

3. PERSONAL PROTECTIVE EQUIPMENT (PPE)

A - Personal, clean white cotton lab coat.

B - Personal, clean white rubber boots.

C - Other PPE, e.g., disposable aprons, caps, boot covers, and gloves, are provided by FMV.



6.2. General Hygiene Principles

6.2.1. Students' Medical History

- If a student suffers from a contagious disease recognized as potentially harmful to food products or live animals, they must inform the teaching staff by completing a previously prepared questionnaire, which will be shared with the managers of the visited facilities.
- The questionnaires allow teaching staff and facility managers to be informed about any zoonotic risks that could be introduced into those facilities.
- When health conditions raising concerns are identified, students will not be allowed access to production areas of slaughterhouses, food processing units, or collective catering establishments.

6.2.2. General Hygiene Principles

- Students receive clear instructions on food hygiene (presented on the back of the questionnaire) with the aim of minimizing the risk of food contamination. Additionally, since most slaughterhouses and food industries visited are certified by the British Retail Consortium (BRC), International Featured Standard (IFS), or International Organization for Standardization (ISO), and follow Hazard Analysis and Critical Control Points (HACCP) plans, students must strictly comply with the internal hygiene standards of the facilities visited.
- A high level of personal hygiene is also required from students.
- General hygiene rules are communicated orally by the accompanying instructor. Students must sign the back of the questionnaire, declaring that they have understood the instructions. The rules include:
 - Eating or drinking in slaughterhouses, food industry facilities, or the municipal dog and cat shelter is strictly prohibited.
 - Any hand injury must be properly protected with an appropriate dressing or bandage.
 - Smoking is prohibited in any area of the facilities.
 - Wearing jewellery in slaughterhouses or food industry facilities is not permitted, including watches, earrings, piercings, and artificial nails.
 - The use of mobile phones in slaughterhouses, food industry facilities, or the municipal dog and cat shelter is not permitted.
- Additionally, students may be required to complete a visitor logbook at the request of facility staff.
- Throughout the visit, the instructor is responsible for ensuring that students comply with hygiene protocols. In particular, students must avoid touching food products, except when necessary, as part of an inspection.
- Clothing and footwear used to visit farms or food production facilities must be properly cleaned and disinfected before each entry.
- The questionnaire includes a section where students must declare whether they have visited livestock facilities, including animal shelters or areas where animal by-products are stored, within the previous 48 hours.



6.2.3. Handwashing

- Upon entering and leaving facilities, as well as after using the restroom, hands must be carefully washed and/or disinfected with antibacterial soap and water.
- Hands must be dried with disposable paper towels, which must be disposed of in an appropriate waste container.
- The use of disposable latex gloves may be adopted but does not replace proper handwashing.
- The use of disposable gloves is mandatory in case of hand injuries, even if covered by a dressing or bandage.
- Handwashing must be carried out at non-manual (hands-free) sinks.

6.2.4. Student Clothing

- Students must wear clean clothing and footwear.
- During practical classes in food processing units, students must wear a clean white cotton lab coat, over which they place a disposable white apron, a disposable cap or hairnet, and disposable boot covers.
- During practical classes in slaughterhouses, students must wear a clean white cotton lab coat, a disposable cap or hairnet, and clean white rubber boots.
- During practical classes at the municipal dog and cat shelter, students must wear a clean white cotton lab coat. In surgical areas and treatment rooms, they must also wear a disposable cap and boot covers.

6.3. Specific Procedures for Visited Facilities

- Upon arrival, students go to a designated room within the facility, where they put on the equipment referred to in section 6.2.4.
- Before entering food sector establishments (such as slaughterhouses, fish markets, egg collection and inspection centers, honey extraction centers, or food processing units), students must put on the required PPE, except for protective gloves. During visits to the municipal dog and cat shelter, PPE must be worn before entering housing areas or surgical rooms.
- Once properly equipped, students pass through a hygiene barrier where they must wash and disinfect their boots and hands before entering production areas.
- The visit follows a one-way flow: students begin in the clean sector and progressively move toward the dirty sector.

6.3.1. Visit to the Cutting Room

- The visit begins in the dispatch area and then proceeds to the cutting room, where students can observe the general hygiene procedures practiced by workers, as well as the infrastructure and workflow circuits.



6.3.2. Visits to Slaughterhouses

- The visit begins in the clean sector and ends in the dirty sectors (“forward flow”), meaning it proceeds from the cutting room to the slaughter area and ends in the lairage, to minimize the risk of cross-contamination.
- Students observe meat inspection alongside the teaching staff, who perform inspection on the slaughter line. For this, they must wear mandatory PPE (lab coat, cap, mask, and gloves).
- The visit ends in the lairage and in the area where ante-mortem inspection takes place.
- In the event of a cut or injury, the student must immediately stop inspection activities and wash their hands at a knee-operated sink. The wound must be disinfected at the slaughterhouse or, if necessary, the student will be referred to the nearest hospital for appropriate treatment.

6.3.3. Visits to Food Processing Units

- Visits follow the “forward flow,” starting in the raw material reception area and ending in sanitary facilities and staff support areas.
- Students may observe compliance with prerequisite programs, good hygiene and manufacturing practices, and evaluate the food safety management system, as well as relevant preventive measures and technological foundations.
- Students must use appropriate PPE, including a white cotton lab coat, cap, and boot covers.

6.3.4. Visits to Collective Catering Establishments

- Visits follow the “forward flow,” starting in the food reception area and ending in sanitary facilities and staff support areas.
- Students may observe compliance with prerequisite programs, good hygiene and manufacturing practices, evaluate the food safety management system, and complete a control checklist.
- Students must use appropriate PPE, including a white cotton lab coat, cap, and boot covers.

6.3.5. Visit to the Municipal Dog/Cat Shelter

- Students begin the visit in the laboratory and in the surgery and treatment rooms, then proceed to public access areas (animal adoption zones), and finally visit the quarantine area, infirmary, and isolation units.
- Students must wear a clean white cotton lab coat. During visits to the surgery room and treatment rooms, they must also wear a cap and boot covers.
- Student access is limited to the exterior of the quarantine area.

6.4. Cleaning and Disinfection of Equipment

- Equipment used by instructors and students in slaughterhouses and other food sector establishments is strictly dedicated to these classes and must not be used in other facilities, such as livestock farms, feed factories, or animal by-product processing plants.



6.4.1. Boots

- At each entry to and exit from establishments, boots are washed and disinfected at the footwear washing station. After use, they are stored by students in a designated area.
- Once a week, or whenever necessary, the teaching staff's boots are disinfected by immersion in a Virocid (Cid Lines) solution.
- In food processing units and collective catering establishments, boot covers are single-use and must be discarded after the visit.
- In the municipal dog and cat shelter, boot covers are single-use and must be discarded after the visit.

6.4.2. Lab Coats

- After visits, white cotton lab coats must be washed at 60 °C with a detergent that has disinfectant action. Students are responsible for washing their own lab coats at home (e.g., OMO Sanitiza & Higieniza, effective against bacteria and viruses). Teaching staff lab coats are delivered by a staff member from the respective department to the FMV laundry, where they are washed in an industrial machine using liquid bleach with antibacterial, antifungal, and antiviral properties (e.g., Peracid Asepsis), and subsequently dried in an industrial dryer.
- In food processing units, white disposable aprons are discarded after use