

ESTONIAN MARITIME ACADEMY'S PHYSICS LAB (MA1-018) RULES FOR INTERNAL ORDER AND OCCUPATIONAL SAFETY

[Estonian Maritime Academy](#)

Document identifier: V5-1/12

Version No: 2

Managed by: lecturer of Science at the Estonian Maritime Academy

Approved by: order No 1-24/258 of 30 September 2020 of the Director of the
Estonian Maritime Academy

Amended by: order No 1-24/3 of 4 January 2024 of the Director of the Estonian
Maritime Academy

- [V5-1/ 12 Full text](#)
- [Form V5-1/0 Internal Work Procedure and Occupational Safety Rules
Review Sheet](#)

1. General safety requirements

1.1. Everyone must undergo occupational safety instruction before commencing work in the Physics Lab. A person who has completed occupational safety instruction confirms, by signature, that he/she has read the regulations and the requirements set out in it and undertakes to comply with them. ([Form V5-1/0](#)).

1.2. Occupational safety instruction shall be conducted in accordance with the Internal Work Procedure and Occupational Safety Rules of the Physics Lab, the requirements of which must be adhered to by all the persons in the laboratory.

1.3. During the occupational safety instruction, the persons commencing work in the laboratory will be informed about the Internal Work Procedure and Occupational Safety Rules, the risk factors in the work environment and the use of personal protective equipment, ergonomically correct working positions and techniques, laboratory work procedures, fire and electrical safety requirements, the locations of first aid equipment and fire extinguishing equipment, the safety signs used at the workplace and the locations of the emergency exits and routes.

1.4. Occupational safety instruction is conducted by a supervisor/lecturer.

1.5. The lecturer of Science is responsible for the maintenance of the equipment of the Physics Lab.

1.6. An access card is required to enter the lab; students are allowed to enter only with the permission of the supervisor/lecturer.

1.7. Users of the lab are required to promptly inform the supervisor/lecturer and other lab users of any detected deficiencies or equipment malfunctions. Working with malfunctioning equipment is prohibited; in the event of a hazardous situation, work must be halted immediately.

1.8. Users of the lab are not permitted to operate independently any equipment without prior safety instruction and approval to commence work granted by the supervisor/lecturer. If you have any doubts or questions, please contact the supervisor/ lecturer.

1.9. If you notice another lab user engaging in improper or prohibited behaviour, you should inform him/her and, if necessary, also notify the supervisor/lecturer thereof.

1.10. It must be safe to work in the lab; it is recommended that you move around in the lab only when necessary and without haste, so as not to disturb others. Move with caution to avoid slipping or falling, as well as to prevent injuries and damage to lab equipment. Engaging in activities that interfere with studies in the lab is prohibited.

1.11. The working environment must be organised to ensure safe and ergonomic working conditions. Remove unnecessary and disturbing objects from the work area.

1.12. In the event of failure to comply with the requirements set out in the Internal Work Procedure and Occupational Safety Rules, the laboratory user shall be immediately removed from the work being performed. In the event of repeated non-compliance, the lab user shall be removed from all works.

1.13. Any material damage to the university resulting from the intentional violation or negligence in the fulfilment of the requirements set out in the Internal Work Procedure and Occupational Safety Rules shall be compensated in full by the person who caused the damage.

1.14. The supervisor of the work/lecturer shall be informed

immediately of any accident/injury or fire occurring during laboratory work. Appropriate measures must be taken depending on the accident.

1.15. In case of an accident involving a victim, the victim shall be removed from the danger zone, and if necessary, first aid providers or an ambulance (phone number 112) must be called, and it must be ensured that first aid is provided to the victim.

1.16. In the event of a serious accident, the inviolability of the workplace and equipment shall be ensured until the arrival of the chief working environment specialist, the representative of the Labour Inspectorate or the police, and until obtaining permission from them to resume work.

1.17. If it is not possible to ensure inviolability of the workplace and equipment, their condition at the time of the accident must be recorded.

1.18. In case of a serious and imminent risk of an accident, actions shall be taken by applying one's knowledge and available technical means to prevent potential consequences, even if it is not possible to immediately contact the supervisor/lecturer.

1.19. In case of a serious or unavoidable risk of an accident, the persons working in the laboratory must leave the workplace quickly and safely; a person who leaves without permission must not be punished or placed at any disadvantage.

1.20. In case of fire, safety of people and their quick evacuation or rescue from the danger zone must be ensured.

1.20.1. A person who discovers fire is obliged to immediately call the emergency number 112 and provide the following information to the rescue centre:

1.20.1.1. the exact address where the fire is located, details on what is burning, and the person reporting the fire;

1.20.1.2. answers to the questions asked by the rescue official;

1.20.1.3. the person must not end the call until permission to do so is granted.

1.21. As far as possible, begin extinguishing the fire using basic fire extinguishing equipment and close the doors and windows to prevent the spread of fire.

1.22. When the rescue team arrives at the scene, the person who discovered the fire or the representative of the possessor of the site

shall inform the head of the rescue team of the following:

- 1.22.1. the source and extent of the fire;
- 1.22.2. the potential hazard to people;
- 1.22.3. other potential hazards arising from the fire (explosions, hazardous chemicals, electrical equipment, etc.).

2. Safety requirements while working in the laboratory

2.1. A lab user is required to use a device in accordance with the user manual of the device.

2.2. Adhere to any additional requirements provided by the supervisor/lecturer (permitted values, arrangement of devices, the order of works, etc.).

2.3. Do not touch hot surfaces.

2.4. Avoid eye exposure to laser radiation.

2.5. Adjust the optical devices to ensure comfortable use without excessive strain on the eyes (resolution, brightness, etc.).

2.6. Avoid direct contact with live metal parts (uninsulated wires or broken equipment casings) as well as indirect contact, e.g. through water or another person.

2.7. Devices and circuits created must be energised only after the circuit has been inspected by the supervisor/lecturer. Any modification of the connections after checking of the circuit is prohibited. This is especially dangerous in the case of an energised circuit.

2.8. During automatic operation of the devices, make sure that safe operation of the devices is ensured and, if possible, automatic switch-off is allowed in case of failure.

2.9. In the event of an accidental power outage, switch off the devices. It is best to disconnect them from the mains.

2.10 Laboratory equipment and instruments must only be used for study and research purposes.

2.11 Storing and using objects and substances (including foodstuffs and beverages) not related to the laboratory's activities is prohibited.

3. Safety requirements after completing work in the laboratory

3.1. Disconnect the equipment from the mains, clean up the work area.

3.2. Submit the measurement results to the supervisor/lecturer and return the tools received to perform the work.