ESTONIAN MARITIME ACADEMY'S METAL CUTTING WORKSHOP (MA2-012) RULES FOR INTERNAL ORDER AND OCCUPATIONAL SAFETY

- Estonian Maritime Academy

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- Form V5-1/0 Internal Work Procedure and Occupational Safety Rules Review Sheet

1. General safety requirements

1.1. All individuals must undergo occupational safety instruction before commencing work in the Metal Cutting Workshop. 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 Metal Cutting Workshop, the requirements of which must be adhered to by all the persons in the workshop.
1.3. During the occupational safety instruction, the persons commencing work in the workshop will be informed about the Internal 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, 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 responsible for the laboratories and workshops of the Centre of Maritime Education and Training is responsible for the maintenance of the equipment of the Metal Cutting Workshop.
1.6. An access card is required to enter the workshop; students are allowed to enter only with the permission of the supervisor/lecturer.
1.7. Users of the workshop are required to promptly inform the supervisor/lecturer and other workshop 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 workshop 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 workshop 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 workshop; it is recommended that you move around in the workshop 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 workshop equipment. Engaging in activities that interfere with studies in the workshop 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 workshop user shall be immediately removed from the work being performed. In the event of repeated non-compliance, the workshop 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 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 performing work 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 before commencing work in the workshop

2.1. The occupational safety requirements laid down in the Rules apply to all methods of metal cutting (turning, milling, drilling, sawing, sharpening of tools, etc.) performed in the workshop.
2.2. Permission to commence practical work is granted by the supervisor/lecturer.
2.3. When performing study tasks, a student should wear neat and buttoned-up work clothes; persons with long hear must wear head covering.
2.4. Change shoes if necessary; lightweight footwear must not be worn while operating machine tools.
2.5. Prior to commencing a task, check the work area and tools as follows:
2.5.1. make sure that the wooden grate underfoot is in good condition and its height is suitable for your height;
2.5.2. make sure that the fasteners of moving parts of the machine tool and jigs are in good condition (crack- and fissure-free);
2.5.3. the existence of protective covers and fasteners;
2.5.4. the existence of cutting tools and measuring instruments;
2.5.5. make sure that the spotlight is in good working condition;
2.5.6. make sure that the required tools are in good working condition;
2.5.7. remove tools that are not necessary to complete the task.
2.6. The supervisor/lecturer shall be promptly notified of any

deficiencies found.
2.7. Familiarize yourself thoroughly with the structure and features of the machine tool you are using, and make sure it is in good working condition. Check the existence of lubricating oil.
2.8. Arrange the tools, measuring instruments and jigs on the workbench in the order of their use.
2.9. Equipment can be plugged in and started only after the supervisor/lecturer has checked the machine tool setup.
2.10. If metal swarf is formed during metal processing and the machine tool is not supplied with appropriate safety devices, use safety glasses or a transparent protective shield.
2.11. When machining malleable metals forming continuous chips, the appropriate chip disposers must be used to remove the chips forming during machining.
2.12. When machining brittle metals forming segmented chips, a transparent screen or protective shield must be used (to protect the face).
2.13 Laboratory equipment and instruments must be used only for study and research purposes.
2.14 Storing and using objects and substances (including foodstuffs and beverages) not related to the laboratory's activities is prohibited.

3. Safety requirements while working in the workshop

3.1. When beginning work, assume a comfortable position, standing on a wooden grate, and do not lean on the machine tool or workbench.
3.2. Right before starting work, put on safety glasses.
3.3. Do not wear gloves while working with a machine tool.
3.4. Clamp the workpiece securely in the chuck of the machine tool or on the workbench and mount the cutting tool into the machine tool.
3.5. Make sure the chuck key is removed after clamping or removing the workpiece.
3.6. Before starting the machine tool, ensure that it is safe to do so.

3.7. Move the cutting tool to the work area only after it has reached its operating speed.
3.8. During work, continuously monitor the movement of the cutting tool, and be prepared to stop the machine immediately if necessary.
3.9. Before shutting off the main drive of the machine tool, make sure that the cutting tool has been removed from the work area.
3.10. Do not engage in extraneous activities or leave the machine tool unattended.
3.11. When using an automatic feeder, do not touch the rotating parts of the feed mechanism with your hand.
3.12. During turning, make sure to check the travel of the slide and carriage during fast feed operations.
3.13. The machine tool must be stopped when mounting, removing or measuring workpieces, changing cutting tools, wiping and lubricating the surfaces or removing chips.
3.14. Use gloves when handling sharp cutting tools and workpieces.
3.15. Do not remove chips while the machine tool is operating; use a hook or a brush to remove chips after the machine tool has been stopped.
3.16. Do not apply breaking force to the machine tool by touching the chuck, spindle, workpiece, belt drive, etc. with your hand.
3.17. If strong vibrations occur during machine tool operation, the machine tool must be stopped immediately, and the cause of the vibration, (eccentric mounting of rotating parts, incorrect operation mode, cutting tool wear, or loose guide rails) must be eliminated.
3.18. In the event of a power outage, the electrical devices of the machine tool must be switched off immediately.
3.19. The safety devices and safeguards must not be removed or opened; the electrical panel door must not be opened without reason.

4. Electrical safety

4.1. Electrical wires can only be connected when the power supply has been switched off!
4.2. Before using an electrical device, make sure that the sockets, cables and plugs of the electrical devices are undamaged and that the device is suitable for the electrical supply with which it is going

to be used.
4.3. Do not touch grounded metal objects with the other hand when turning on or off an electrical device.
4.4. If you detect a burning smell, see sparks, or notice unexpected heating of a device or any of its parts when using an electrical device, halt the work immediately, disconnect the device from the mains and inform the supervisor of the laboratory work.
4.5. A burning electrical device must be disconnected from the power supply at the electrical panel without touching the device.
4.6. Burning electrical equipment must not be extinguished with water. Use a dry powder or CO_2 fire extinguisher to extinguish the fire.

5. After completing work

5.1. Stop the machine tool and remove the processed workpiece.
NB! Prior to removing the workpiece, make sure it is not too hot.
5.2. Tidy up the work area, clean and oil the machine tool.
5.3. Notify the supervisor/lecturer about the completion of the task and present the work results.