



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SCHOOL OF BIOMEDICAL ENGINEERING AND HEALTH SCIENCE

Workers Name: _____

Supervisor Name: _____

Project Title: _____

Laboratory Name: _____

Duration of Project: _____

Mobile Telephone: _____

Lab Telephone: _____

LABORATORY RULES AND SAFETY GUIDE

General Regulations

- All works at the laboratory can only be carried out by approval from the head of lab or lab staff.
- All safety documents including Risk assessment (HIRARC), SDS and SOP must be read and understood prior to commencement of work.
- Please follow all safety instructions and warning signs in the laboratory room.
- Smoking, drinking and eating in laboratory are strictly prohibited.
- Students are prohibited from wearing jewellery.
- For those who had long hair, neatly tied your hair before entering the laboratory.
- Personal belongings such as handbag must be put in proper cabinet.
- During the experiments, there must be at least two students in the laboratory at any one time.
- Sharp or scalpel blade should not be used unless it is necessary for the work
- All students and lab staff need to familiarize themselves with the emergency equipment such as fire extinguishers, sprinkler and other emergency plans.
- Keep your hands washed before leaving the laboratory and notify laboratory staff immediately if contamination is suspected. Used gloves should be removed before leaving the workplace area.
- Clean and return all the laboratory equipments before leaving the laboratory
- Housekeeping must be carried out consistently. Avoid storing items such as cardboard boxes underneath bench as these may become contaminated in the event of spillage.
- Any accident must be immediately reported to laboratory staff on duty. If the minor fire broke up, use fire extinguishers. If the fire is beyond control, inform the UTM Security Guard. Evacuate immediately from the lab and gather at designated assembly centre.

Safety Clothing

- All students and staffs are required to wear personal protective equipment as specified in SDS during laboratory activities.
- Lab coat and shoes must always be worn in the laboratory.

Laboratory Equipment

- Do not use any laboratory equipment without permission of the laboratory staff on duty.
- Do not remove any of the laboratory equipment without permission.
- Before using the laboratory equipment, make sure the power source and plug is in accordance with the equipment.
- Report immediately to the laboratory staff on duty if any laboratory equipment is damaged before or during the use.
- All students need to make sure all experiments or equipments are in safe operation. Do not leave. Please inform the laboratory staff if you have to leave the on-going experiment or equipments.

Waste

- All waste materials shall be decontaminated by autoclave.
- Items awaiting disinfection must be stored in a safe procedure.
- Pipettes must be immersed in disinfectant after used.
- Plasticware, glassware and petri dish containing media must be decontaminated.
- The users are responsible for cleaning desks and equipments after using them and to make sure that the laboratory environment does not endanger other users.
- Throw all debris that is not harmful to the trash
- Chemicals residuals must be separated in the neatly labelled bottle before being discharged into a designated disposal site in the lab.
- Do not throw garbage and waste into the sink or urinal.
- Disposed biological materials waste by following the designated disposal procedures.
- Dispose used glove properly in container provided.
- Broken glass should immediately be cleaned up and discarded into the container labelled for that purpose.

Electricity, Gas and Others

- All gas, fuel and gas flow valve must be closed before leaving the lab room and when not in use. Closing fume chamber should be reduced to the lowest level.
- Make sure all electricity sources, water, gas, air conditioning and appliances are off when not in use and before leaving the lab room.

LMO/GMO Handling

- Student and staff must receive proper training in handling microorganisms including recombinant microorganisms (LMO/GMO) and an appropriate standard of supervision of the work must be maintained followed by Malaysian Biosafety Act 2007.
- Contamination of skin and mucous membranes and self-inoculation must be avoided.
- Waste material contaminated with BAs/GMMs must be decontaminated before leaving the area either by suitable disinfection or by autoclaving.

- BAs/GMMs must be safely stored in designated incubators, refrigerators and freezers. Details of all organisms must be maintained in the department (in logbook and file)
- Equipment requiring service or repair which has been in contact with BAs/GMMs must have a signed certificate stating that it does not present any hazards before an engineer is asked to work on it.

*** Please fill in an additional biosafety form from as listed in school website for work involving modern biotechnology. See Malaysia Biosafety Act 2007 for further information.

<p>This is to certify that I have read the "Laboratory Safety Acknowledgment Form" and have been given ongoing verbal instructions from the instructor concerning safety procedures. I realize that failure to observe these instructions could result in serious injury to others and myself and acknowledges my responsibility towards the care to be used in handling all materials and equipment. In order to avoid damage to equipment and injuries to others, and myself I promise to observe and obey these rules at all times.</p> <p style="text-align: center;">If I neglect these safety rules I understand I may be removed from the laboratory portion of the course.</p>	
(Student signature & date)	(Supervisor signature & date)

- All accidents and incidents must be reported to the Assistant Science Officer or Safety Officer immediately - **Pn. Nurul Husna Jasin (nhusna@utm.my)** or **Dr. Hadafi Fitri Mohd Latip (hadafifitri@utm.my)**.

SOP : Standard Operating Procedure
BAs : Biological agents
GMMs : Genetically Modified Microorganisms
ASO : Assistant Science Officer

Please fill out 3 copies:

- i) Student copy (To be included in lab book)
- ii) Supervisor copy
- iii) Laboratory Staff copy (To be kept for audit purposes)