JOB SAFETY ANALYSIS & RISK ASSESSMENT FORM

Nor Aini Burok

OCCUPATIONAL SAFETY AND HEALTH ACT,1994

OSHA 1994

- "Self Regulation"
- "Proactive"

Guiding principles

- Responsibilities for OSH lies with those **WHO CREATE THE RISK** and those **WHO WORK WITH THE RISK**
- Concept of so far as is REASONABLE/PRACTICABLE

DUTIES OF EMPLOYER

Part IV Section 15 (1)

To ensure, so far as is practicable, the safety, health and welfare at work of all his employees.

Employees Responsibilities as outlined in Act 514 .

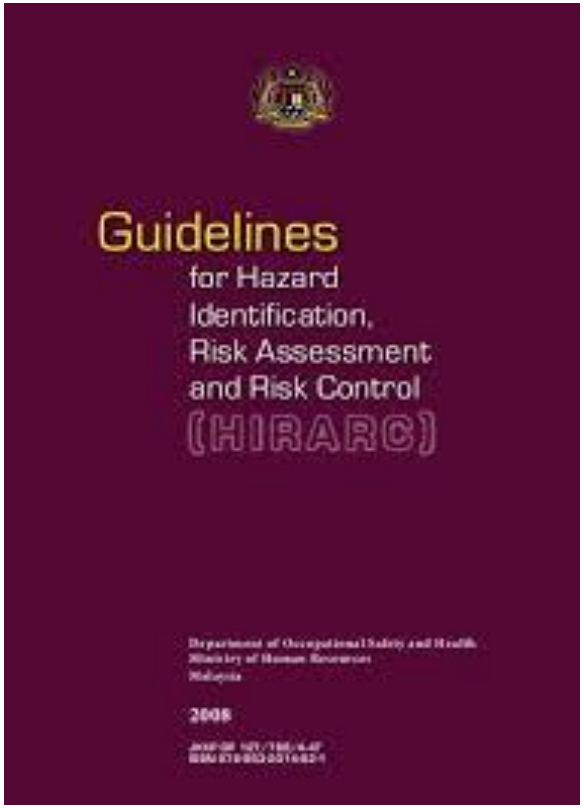
Penalty for offence (Sec 15 - 18)

FINE : Not exceeding **RM 500,000.00**

IMPRISONMENT : not exceeding **2 years**

or **BOTH**

OUR RESPONSIBILITIES IN OSH

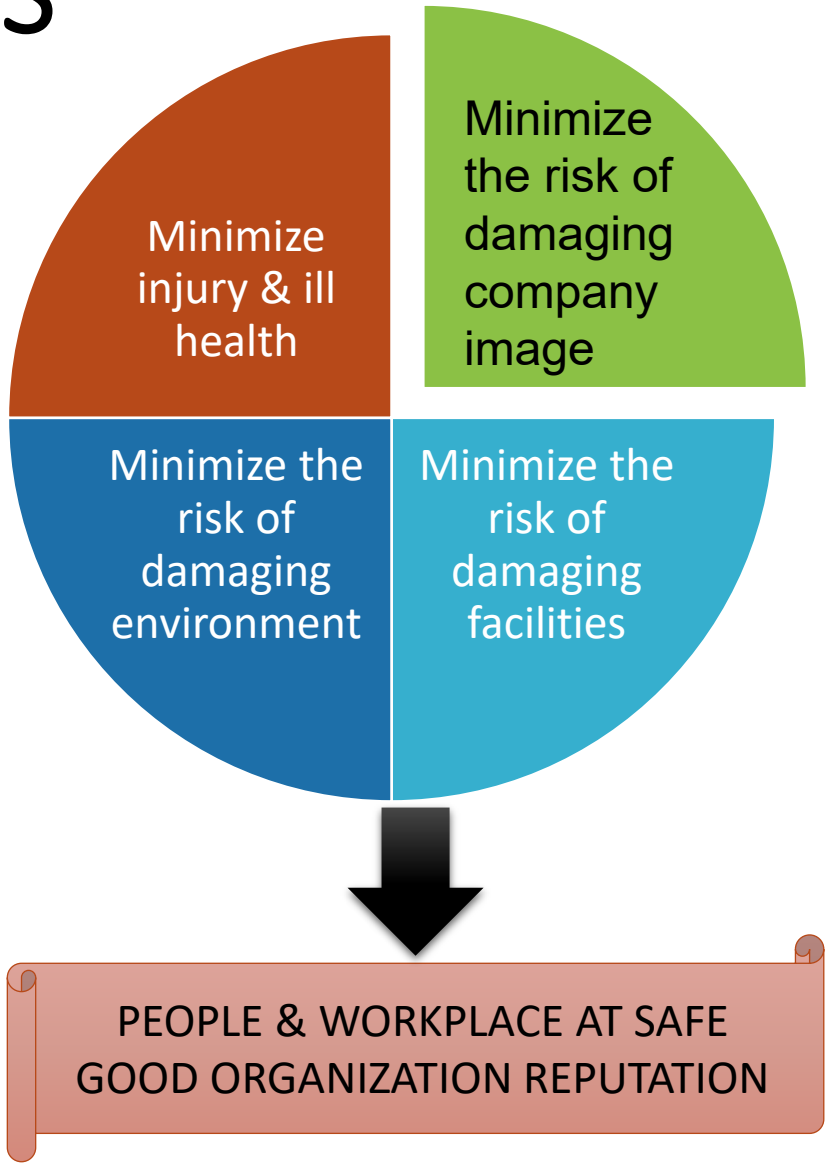


Job Safety Analysis

Need to be prepared before you can enter the laboratory or workshop

- Postgraduate
- Undergraduate
- External or special event

OBJECTIVES


Minimize injury & ill health
Minimize the risk of damaging company image
Minimize the risk of damaging environment
Minimize the risk of damaging facilities
PEOPLE & WORKPLACE AT SAFE
GOOD ORGANIZATION REPUTATION

ACCIDENT CAUSAL FACTORS

JSA PROCESS STEPS

UniKL MICET

FOR DIPLOMA: Submission 31st Oct 2025 (Week 4) BEFORE 5PM.

FOR DEGREE: Submission NO LATER THAN 14th NOV 2025 (Week 6), BEFORE 5PM

JSA preparation [JSA FORM Rev 12]

- Confirm the title & methods to be used.

JSA completion

- Technician , supervisor & Laboratory manager reviewed & signed the JSA

JSA Submission for approval

- Submit hard copy to JSA approver according to the department of your SV belongs to.

Notification of JSA Approval

- The approved JSA will be returned with JSA Ref No.

JSA Submission to TIC & FYP Coordinator

- A copy of approved JSA must be submitted to TIC before starting the lab work.
- A softcopy to be submitted to FYP Coordinator in Week 8

Student working with hazardous chemical such n-Hexane / Hexane, nanomaterials & etc need to attend training by Lab Executive.

Submission Date: FOLLOW THE FYP TIMELINE.

[Submission of JSA during FYP 2 will not be accepted]

The original must be kept by

Copy to every laboratory to be used

Requirement for Post graduate student [MASTER & PhD]

1. **WORK AFTER OFFICE HOUR [for PG student]- After hours risk assessment procedure and forms [Rev 2]**
2. **TRAINING WORKING WITH HAZARDOUS SUBSTANCE as per Schedule 2, USECHH,2000**

UniKL MICET

JSA PROCESS STEPS FOR MANAGEMENT OF CHANGES

JSA preparation [JSA FORM Rev 12]

- Confirm the title & methods to be used.

JSA completion

- Technician , supervisor & Laboratory manager reviewed & signed the JSA

JSA Submission for approval

- Submit hard copy to JSA approver according to the department of your SV belongs to.

Submission Date: FOLLOW THE FYP TIMELINE.

[Submission of JSA during FYP 2 will not be accepted]

Notification of JSA Approval

- The approved JSA will be returned with JSA Ref No.

JSA Submission to TIC & FYPCoordinator

- A copy of approved JSA must be submitted to TIC before starting the lab work.
- A softcopy to be submitted to FYP Coordinator in Week 8

The original must be kept by

Copy to every laboratory to be used

MANAGEMENT OF CHANGES.

1. Any Changes To Your Approved JSA; Method, Places, Chemicals etc.
2. You are required to resubmit it together with approved JSA [i.e with the JSA Ref No].

FINAL YEAR PROJECT (FYP)

JSA Rev 12 1st NOVEMBER 2023

Reference Number-

JOB SAFETY / HAZARD ANALYSIS & RISK ASSESSMENT FORM UNIVERSITY OF KUALA LUMPUR (MICET)

JSA FORM Revision 12 (Effective From 1st NOVEMBER 2023)

1. Details information

Name	
Researcher Identification No. [Student ID – UniKL MICET or IC No – others]	
Contact No.	
UniKL MICET (Program)	PROCESS / ENV. / POLYMER / FOOD / BIOPROCESS / BIOSYSTEM / ICOLE
External Researcher (School/College/University/Company)	
Research Starting Time	Date:
Research Completing Date *(Diploma – 1 semester;* *Degree – 2 semester* *Master – 2 years; PhD: 4 years* *External – as specified in Letter of intention)*	Date:

2. Name of Supervisor

Supervisor	
Co supervisor	

3. Title of Research Project

4. Method / Procedure

LIST ALL CHEMICAL EQUIPMENT AND APPARATUS USED.

LIST OF CHEMICAL USED	

LIST OF EQUIPMENT USED	

LIST OF APPARATUS USED	

PLEASE WRITE FULL STEPS OF YOUR RESEARCH METHOD USE IN YOUR PROJECT; INCLUDING WORK AND MOBILITY TO A SAMPLING SITES. [ALL STEPS IN THE RESEARCH METHODOLOGY AT THE LABORATORY AND SAMPLING SITES]

ATTACHED WITH COMPLETE RESEARCH FLOW CHART IS RECOMMENDED.

DO NOT PROVIDE A FLOW CHART OR NAME OF THE TEST ONLY.

IDENTIFY ALL HAZARDS IN EACH STEP AND SUBSTANCES USED.
[ANY CHANGES OF THE METHOD / PROCEDURE USE IN YOUR PROJECT. NEED TO BE INFORMED AND SUBMIT A REVISED JSA FOR APPROVAL]

Hazardous Material like n-Hexane.
Control Measures:
Substitution
Administration
Control

5 Type of hazards identified in this project.

i. All hazards must be identified during sampling in & out the campus, performing the experiment in the laboratory and analyzing of results.
ii. If your experiment is going to be carried out at external laboratory, it is a requirement to do hazard identification at those laboratories.

Type of hazards	Table to be completed	Potential Hazards	
		Yes	No
Physical hazards	Please fill in table 5a		
Biological hazards	Please fill in table 5b		
Chemical hazards	Please fill in table 5c		

5a. Hazards that have potential to cause harm (potential hazard)

i. (*Do not forget to include ergonomic hazards AND all the physical hazards)*

Physical hazards identified [at ALL sites; sampling site, laboratory etc]	**Precautions / Emergency action**

External sampling area

ii. List all the nanomateial to be used in your research, if not used please write 'NOT APPLICABLE'. Please do not leave it blank.

No	Name of nanomaterial.	Laboratory to be used by the researcher.	Type of nanaomaterial used.	Is the nanomaterial fabricate by researcher? [YES / NO]

5b. Hazards that have potential to cause harm (potential hazard)

i. (*All the biological hazards)*

Biological hazards identified [at ALL sites; sampling site, laboratory etc]	**Precautions / Emergency action**

Important

ii. List all the microorganism to be used in your research, if not used please write 'NOT APPLICABLE'. Please do not leave it blank.

No	**Name of microorganism** (in details; spp & strain)- compulsory. No **Short form** shall be used here.	**Laboratory to be used by the researcher.**	**Storage location of the microorganism**	**Microorganism Risk Group** (to be decided by BSO - Biosafety Officer)	**Approved by: Campus BSO :** Dr Nik Ida Mardiana Nik Pa.

5c. Substances used which have potential to cause harm (potential hazard)

NB: This section is concerned with hazards inherent in the substances rather than the way they might be used in this procedure. All columns must be filled according to Safety Data Sheet.

Substance	**Hazards identified** *(e.g. toxic, flammable)*	**EXPOSURE LIMIT (MEL or OEL)** *(if assigned- do not quote LD50 etc.)*	**Precautions in handling** *(if gloves required state type)*	**Emergency action** *in the event of spillage etc.*

5d. Equipment used in the procedure which may cause harm

NB: This section is concerned with hazards inherent in the equipment rather than the way it might be used in this procedure.

Equipment	Nature of hazard	Precautions to be taken

6. Laboratories required

[NAME ALL ACTIVITIES TO BE DONE, LABORATORY & EQUIPMENT TO USED]

Laboratory Number / Name	Activity To Be Done	Name Equipment To Be Used	Duration

6a. First Aid & Fire Fighting Equipment (FAFFE) Available

FAFFE	LABORATORY:	LABORATORY:
Eye wash & emergency shower	Model: Last date checked: Condition: GOOD / NOT GOOD	Model: Last date checked: Condition: GOOD / NOT GOOD
First Aid Box	Last date checked:	Last date checked:
Fire Extinguisher	Date checked on: *[The date is on certificate attached to the cylinder]*	Date checked on: *[The date is on certificate attached to the cylinder]*

Expiry date of FE on the cylinder

7. Disposal routes for waste materials

Tick [☑] or complete appropriate box for each category of waste WITH reference to FIRST SCHEDULE of ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005.

Nature of waste:	Route for disposal:					
	Sink	Black bag	Black bin (e.g SW410)	Solvent drum (SW311; SW322; SW323)	Sharps bin	Other route (specify)

NOTE:The following list of scheduled wastes are not exhausted, the above regulation must be referred to complete this section.

SW109	Waste containing mercury or its compound
SW206	Spent inorganic acids
SW311	Waste of oil or oily sludge
SW322	Waste of non-halogenated organic solvents
SW323	Waste of halogenated organic solvents
SW421	Rags, plastics, papers or filters contaminated with scheduled wastes

NOTE:
PLEASE SPECIFY YOUR BIOHAZARD WASTE - ROUTE OF DISPOSAL

8. Specific risk assessment for procedure and precautions to be taken

IT IS RECOMMENDED TO YOU TO DO THE SIMPLE RISK ASSESSMENT ACCORDING TO DOSH HIRARC GUIDELINES

THIS IS ONLY A SAMPLE. PLEASE CHANGE ACCORDING TO YOUR PROJECT NEED.

DO NOT COPY ONLY.

SAMPLE:

During preparation of reagent solutions there is a LOW risk of contact with hazardous chemicals if all precautionary measures stated in Table 5a and b (handling) are followed.
Extra care must be taken to avoid chemical spillage.
PPE must be worn at all times.
Work in a well-ventilated area (i.e. fume cupboard).

During sample analysis there is a LOW risk of contact with chemicals because the sample solution contains low concentration. Avoid aerosol and fume formation by selecting a moderate stirring speed.

Turn on electrical equipment ONLY after all components have been connected, and the cables checked for any damage.

After following all the above precautions the overall risk assessment for this procedure is LOW.

9. Level of supervision required to start the research project.

Please mark box [☑] to indicate appropriate supervision category for this procedure.

	Category A	*work may not be carried out except under the direct supervision of a specified member of staff who is present continuously*
	Category B	*work may not be started without the supervisor's advice and approval, some additional training and initial direct supervision*
	Category C	*work may not be started without the supervisor's advice and approval and some additional training - no direct supervision required*
	Category D	*although extra care must be observed, workers should already be competent and adequately-trained for this task*
	Category E	*risks are insignificant and supervision unnecessary*

NOT APPLICABLE FOR DEGREE & DIPLOMA

Risk Management Procedure for PG student

9a. Is this procedure authorised for out-of-hours work?

*[To be filled **ONLY** by post graduate student]*

Has you completed your After-hours risk assessment management procedure?

YES :___ NO:____

After Hours Risk Management Procedure

4 Related Documents for this procedure.

1. Job Safety Analysis (JSA/HA)
2. Work After Hours Application Form [**WAHA FORM 01**]
3. Laboratory Safety Briefing.
4. Safety Declaration Form and Exclusion of Liability

PIGEON HOLE BEHIND GLASS ROOM NEAR LESTARI HALL

JSA for Nor Aini Burok [ONLY]

The reference number will be issued, once JSA is approved

A-Diploma
B- Bachelor
C-PG/ EXT

Reference Number- Section MMYYYY / A or B / Sequence No

JOB SAFETY / HAZARD ANALYSIS & RISK ASSESSMENT FORM UNIVERSITY OF KUALA LUMPUR (MICET)

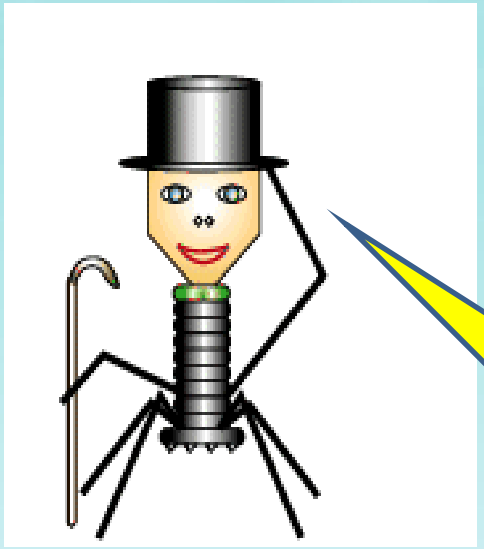
- *Safety data sheets for **NEW chemicals used in your project (and NOT available in the laboratory) need to be attached WITH this form.***
- *Once this assessment has been signed by you, a technician, your project supervisor and safety health officer; an assigned reference number will be given, please submit:*
  - *the original document of this assessment to be kept by*
  - *The **copy of the document of this assessment t CHARGED [TIC] of main laboratory used; to be safety file.***
  - *If more than one laboratory used in this project, document to the TIC to be kept in the laboratory safety*
  - *Ensure this assessment is resubmitted for approval v hour.*
- *Ensure this assessment is read and signed annually by a*
- ***Postgraduate student is required to submit After h procedure together with this submission.***
- *Ensure this assessment is reviewed annually by the postgraduate.*

- *IF IT IS A NEW CHEMICAL {CHEMICAL NOT IN THE INVENTORY OF THE LABORATORY}, IT IS THE **RESPONSIBILITY OF THE STUDENT & SUPERVISOR** TO PROVIDE THE SDS TO THE LABORATORY TECHNICIAN IN-CHARGE*

LIST OF AUTHORISED JSA APPROVER

Submission of JSA to Approver, following the SV Section

NO.	SECTION	NAME	E-MAIL ADDRESS
1.	Food	Mdm. Nor Aini Burok (for diploma and degree)	norainib@unikl.edu.my
2.	Technical Foundation (TF)	Ms. Norhayati Mohd Idrus	norhayatimi@unikl.edu.my
3.	Environment & Polymer	Ts Khairul Nadiah binti Ibrahim	khairulnadiah@unikl.edu.my
4.	Process	Ts Nor Aini Burok (for diploma & degree) – For Sem Oct 2025.	norainib@unikl.edu.my
5.	Bioprocess	AP Ts Dr Ruzainah Ali	ruzainah@unikl.edu.my
6.	CES	Dr. Farra Wahida Shaarani	farrashaarani@unikl.edu.my
7.	Postgraduate	Ts Nor Aini Burok	norainib@unikl.edu.my



THANK YOU

Any
Question ?