JOB SAFETY ANALYSIS & RISK ASSESSMENT FORM

Nor Aini Burok

OSHA 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 .

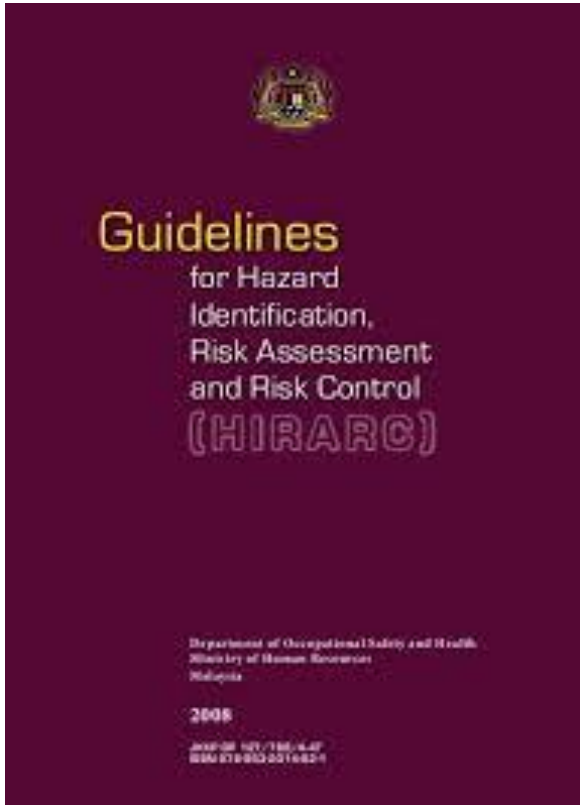
Penalty for offence (Sec 15 - 18)

FINE : Not exceeding **RM 50,000.00**

IMPRISONMENT : not exceeding **2 years**

or **BOTH**

OUR RESPONSIBILITIES IN OSH

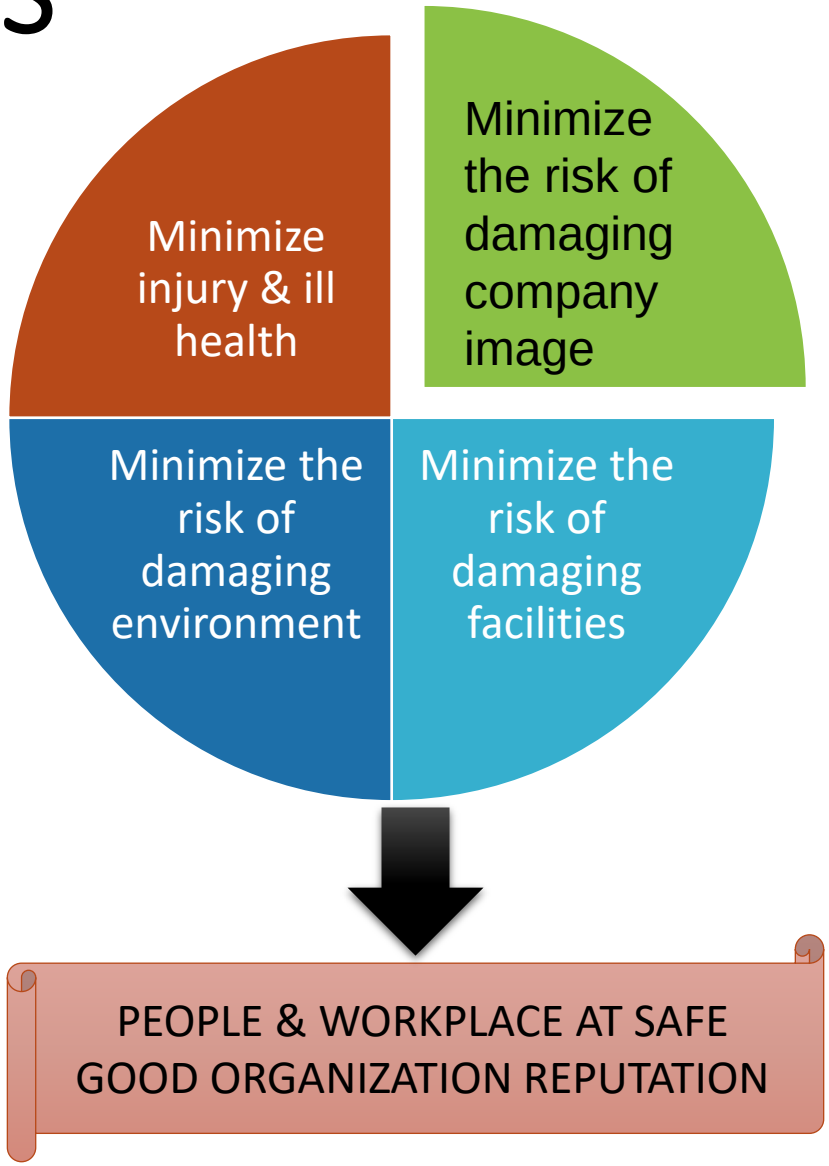


Job Safety Analysis

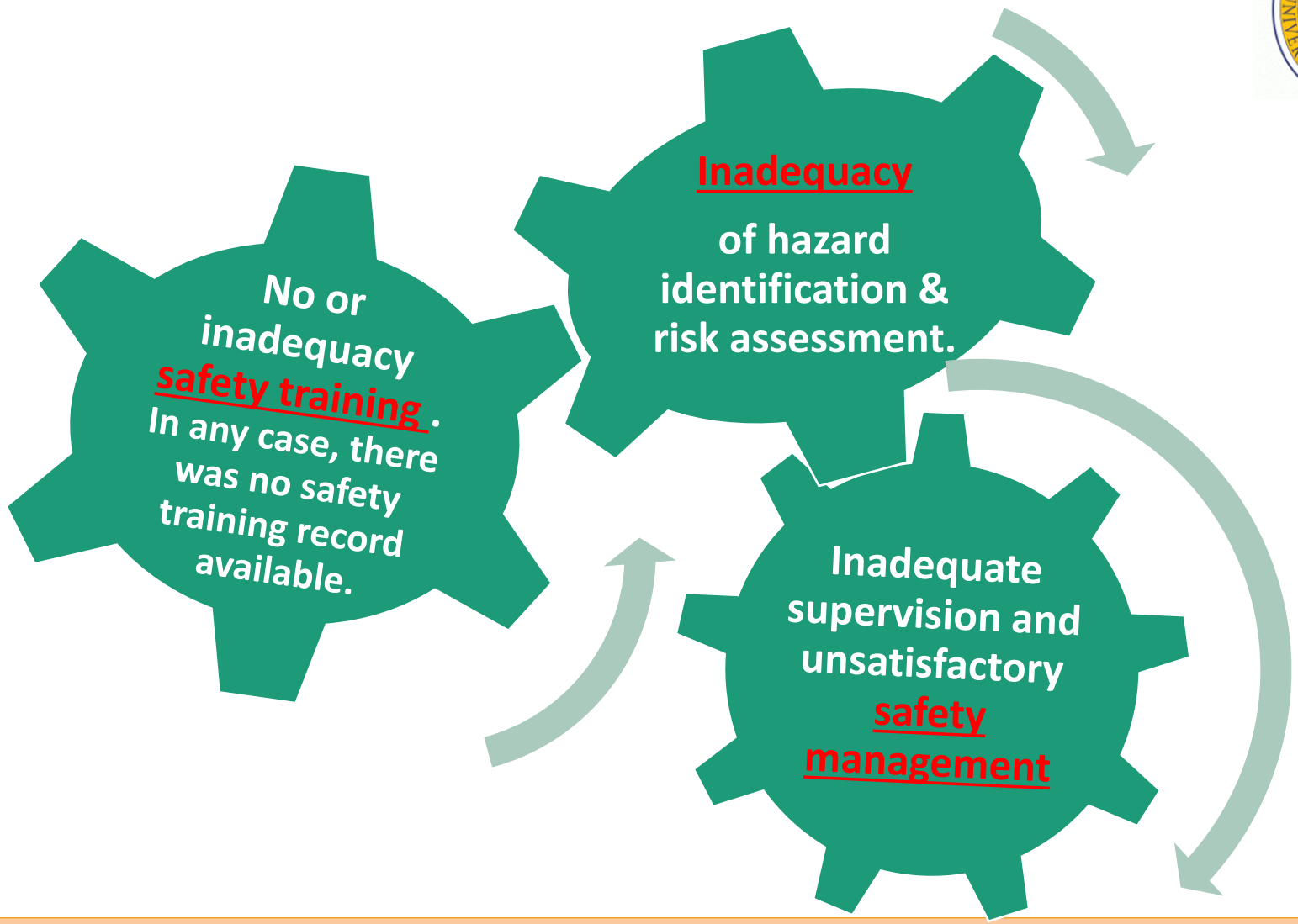
Need to be prepared before you can enter the laboratory or workshop

- 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

JSA preparation

- Confirm the title & methods to be used.

JSA completion

- Technician , supervisor & Laboratory manager reviewed & e-signature

JSA Submission

- Email to JSA approver according to the department of your SV belongs to..

Notification of JSA Approval

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

JSA Submission to TIC

- A copy of approved JSA must be submitted to TIC before starting the lab work.

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

Latest in Week 5

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]**
2. **TRAINING WORKING WITH HAZARDOUS SUBSTANCE as per Schedule 2, USECHH,2000**

JSA PROCESS STEPS FOR MANAGEMENT OF CHANGES

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JSA preparation
- Confirm the title & methods to be used.

JSA completion
- Technician , supervisor & Laboratory manager reviewed & e-signature

JSA Submission
- Email to JSA approver according to the department of your SV belongs to..

Notification of JSA Approval
- The approved JSA will be returned via email with JSA Ref No.

JSA Submission to TIC
- A copy of approved JSA must be submitted to TIC before starting the lab work.

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].

The original must be kept by

Copy to every laboratory to be used

JOB SAFETY ANALYSIS FORM

1. Title of procedure / experiment.
2. Name of supervisor { & co-supervisor}.
3. Detail of information: Name of author & contact number.
4. Method / Procedure.
5. **Hazard Identification and Control measures**
   - Substances used which have potential to cause harm; physical, ergonomic & other hazard
   - Substances used which have potential to cause harm; i.e biological hazards
   - Substances used which have potential to cause harm; i.e chemical hazard
   - Equipment used in the procedure which may cause harm.
6. **Laboratory to be used & First Aid and Fire fighting equipment available.**
7. Disposal routes & waste materials
8. Risk assessment and precaution to be taken (in statement)
9. Level of supervision and suitability for out-of-hours work
   - Out-of-hours work approval
10. Emergency contact no.
11. **Evidence of Review and checked by laboratory technician –E-signature**
    - **by technician & by Laboratory Manager**
12. **Evidence of Review and checked by supervisor & Co supervisor (if any) – E signature.**
13. Details of other student involved in the project/procedure
14. Review Section [TO BE FILLED BY POSTGRADUATE ONLY].

FINAL YEAR PROJECT (FYP)

- 2020 JSA_ Form Rev 9 Effective Date 10FEB2020

Reference Number-

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

JSA FORM Revision 9 (Effective From Feb 2020)

1. Title of Research Project

2. Name of Supervisor

Supervisor	
Co supervisor	

3. 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)	
Fyp Starting Time	Sem: Year:
Expiry Date *(Diploma – 1 semester;* *Degree – 2 semester* *Master – 2 years; PhD: 4 years* *External – as specified in Letter of intention)*	Date:

4. Method / Procedure

PLEASE WRITE FULL STEPS OF YOUR METHODOLOGY USE IN YOUR PROJECT; INCLUDING MOBILITY TO A SAMPLING SITES.

[ALL STEPS IN THE RESEARCH METHODOLOGY AT THE LABORATORY AND SAMPLING SITES]

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

IDENTIFY ALL HAZARDS IN 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)

(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

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

(All the biological hazards)

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

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 LABORATORY TO USED]

TO BE COMPLETED PRIOR SUBMISSION COPY OF JSA TO TECHNICIAN [i.e., once you come back to the campus].

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
Antiseptic cream	Expire:	Expire:
Dressing		
Eyemo	Expire:	Expire:
Yellow lotion	Expire:	Expire:
Dettol	Expire:	Expire:
Chemical spill kit		
Fire Extinguisher	Checked on: Next checking on:	Checked on: Next checking on:

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

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 and suitability for out-of-hours work

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*

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

YES :___ NO:___

[TO BE FILLED FOR WORK TO BE DONE OUT OF OFFICE HOURS]

Date and time	Supervisor Approval	HOS Approval	SHO Approval

E-signature required for No: 11, 11a, 12 and 13

11. Signature of technician involved in the project.

Form Checked By(Technician):-		Signature (Date)
Form Checked By (Technician):-		Signature (Date)
Form Checked By (Technician):-		Signature (Date)
Form Checked By (Technician):-		Signature (Date)

11a. Signature of Laboratory Manager

Approved By:-		Signature (Date)
Approved By:-		Signature (Date)

E-signature required for No: 11, 11a, 12 and 13

12. Signature of academic supervisor and co supervisor

Note that this assessment needs to be reviewed and signed annually to take into account any developments of the procedure [if the project is more than one year, eg postgraduate].

Supervisor (Name):	Signature (Date)
Co-Supervisor (Name):	Signature (Date)

13. Signature of authorised signatory for JSA approval

Signature	Name
	Date

14. Signature and contact number of workers involved with this procedure

Please sign annually to say you have read the attached document and understood it.

#	Name of other student involved		Signature & Contact No. (Date)	#	Name of other student involved		Signature & Contact No. (Date)
1				2			
3				4			
5				6			
7				8			
9				10			
11				12			
JSA reference number of other student involved				JSA reference number of other student involved			

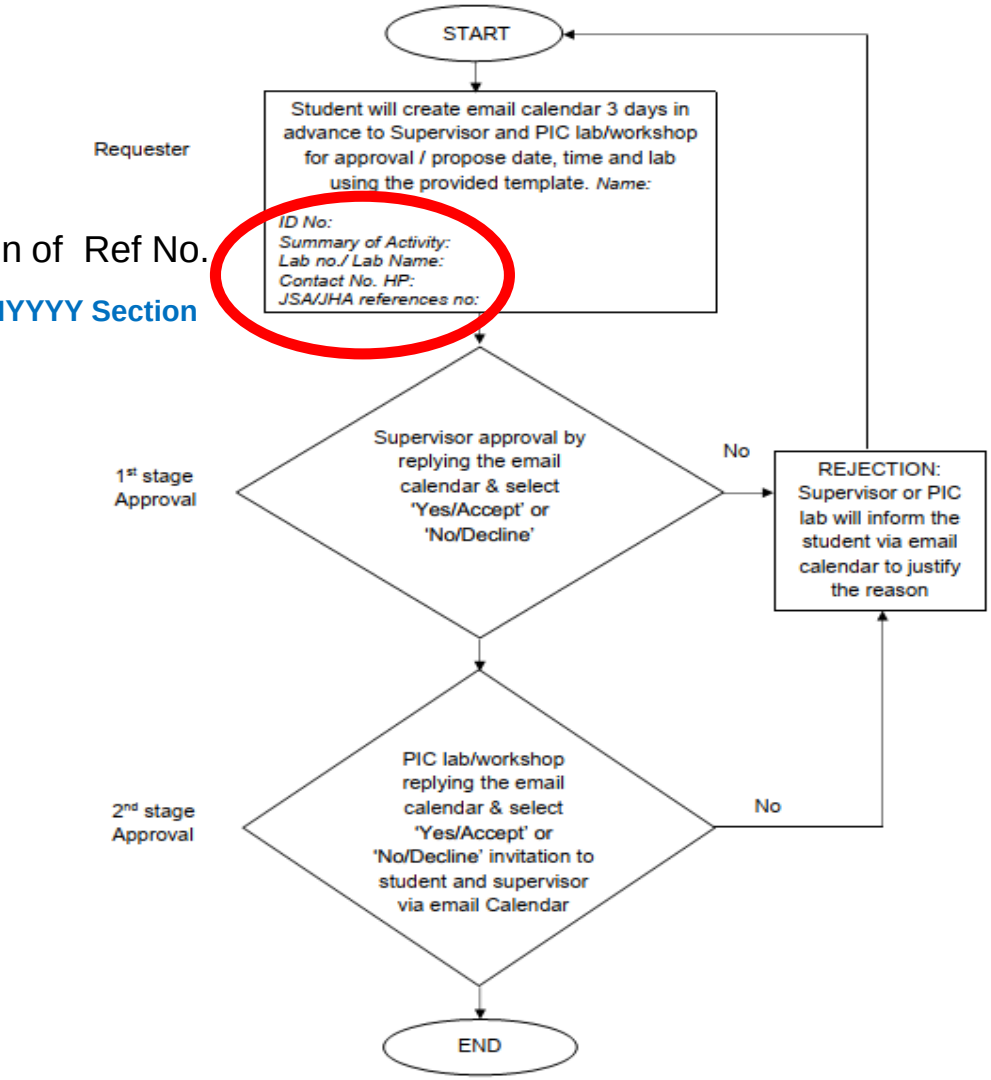
The reference number will be issued, once JSA is approved

A-Diploma
B- Bachelor
C-PG/ EXT

Reference Number- **1 / B / MMYYYY Section**

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

Procedure for lab booking during Conditional/Movement Control Order (CMCO/MCO) for UniKL MICET



Notes: Supervisor or person in charge (PIC) will decline or reject for incomplete information provided.

Function of Ref No.

1 / B / MMYYYY Section

Process of lab booking

- Students need to sign the agreement of Laboratory Safety Declaration Form based on section and submit to TIC. It is compulsory for the students who entered laboratories for first time
- Completed the JSA and RAF for PG student for work using chemical hazardous to health & obtain approval.
- Make the Lab & Equipment Booking : 3 working days in advance via email calendar
- There are two levels of authorization. Permission must be obtained from FYP SV and TIC
- **Acceptance & Rejection**. The Student will receive an email (Calendar)with “ACCEPT” or “DECLINE” from TIC.

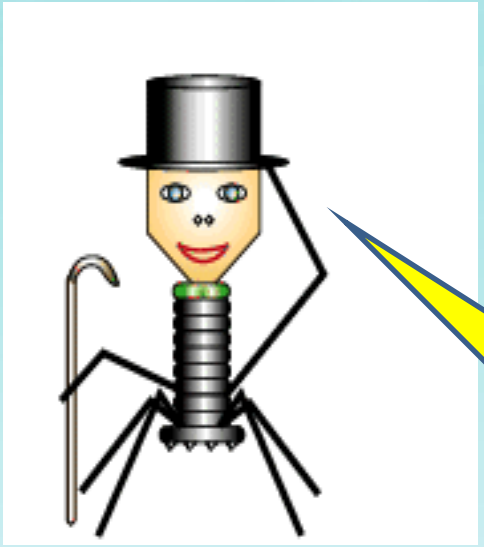
- *Safety data sheets for **NEW chemicals used in your project (and NOT available in the laboratory) need to be attached WITH this form.***
- *Once this assessment has been signed by you, a technician, your project supervisor and safety health officer; an assigned reference number will be given, please 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*

AUTHORISED JSA APPROVER As Feb 2021

UniKL MICET

NO	NAME	SECTION
1	Ms Norhayati Mohd Idrus	**TECHNICAL FOUNDATION (norhayatimi@unikl.edu.my)**
2	Ts Nor Aini Burok	**PROCESS (norainib@unikl.edu.my)**
3	Mdm Khairul Nadiah Ibrahim	**ENV (khairulnadiah@unikl.edu.my)**
4	Ts Dr Sharifah Soplah Syed Abdullah	**FOOD (sharifahsoplah@unikl.edu.my)**
5	Ms Mazlina Ghazali	**POLYMER (mazlina@unikl.edu.my)**
6	Ts Mohamad Zulkeflee Sabri	**BIOPROCESS /BIOSYSTEM (mzulkeflee@unikl.edu.my)**
7	Dr Chin Lip Han	**CES (hancl@unikl.edu.my)**
8	Ts Nor Aini Burok	**POSTGRADUATE/EXTERNAL**



THANK YOU

Any
Question ?