



COURSE TITLE	: Chemical Health Risk Assessment	COURSE CODE	: CHRA
COURSE DURATION	: 11 day(s) / 68.75 hour(s)	COURSE LEVEL	: Basic
COURSE CATEGORY	: Competency	EXAMINATION FEE	: RM400.00
HRDF SCHEME	: SBL		
COURSE FEE	: RM5,194.00 (inclusive of SST)		

1. OBJECTIVES:

At the end of the course, the participant will be able to:

- i. Conduct Chemical Health Risk Assessment.
- ii. Write CHRA report.

2. TARGET GROUP(S):

- i. This course is designed for those who intend to be a competent Assessor under USECHH Regulations 2000.

3. ENTRY REQUIREMENT(S):

- i. Possess at least a diploma in engineering, physics, chemicals, biochemistry, ergonomics, natural and applied sciences or nursing recognised by the Government of Malaysia and has a minimum of three (3) years practices in Occupational Safety and Health.

Note: Please refer to the Guidelines for the Registration of Assessors, Hygiene Technician and Occupational Health Doctor by the Department of Occupational Safety and Health, Ministry of Human Resources Malaysia 2000 if you would like to be a competent Assessor.

4. TOPIC(S):

Module 1

- i. Overview of CHRA.
- ii. Overview OSHA, Regulations & Orders.
- iii. Factories and Machinery Act 1967 and Its Regulations.
- iv. Other Regulations Related to Chemical.
- v. Classification of Health Hazards.

Module 2

- i. Principle of Industrial Hygiene.
- ii. Technical Control.
- iii. Organisational Control.
- iv. Emergency Response Preparedness.
- v. Chemical Exposure Monitoring.
- vi. Medical Surveillance.



Module 3

- i. Introduction to CHRA Manual 3rd Edition.
- ii. Gather Information and Divide into Work Unit.
- iii. Routes of Exposure.
- iv. Hazard Determination.
- v. Evaluate Exposure & Risk Determination.
- vi. Assess Adequacy of Control Measure.
- vii. Conclude, Recommend and Prioritise.
- viii. Report Writing.
- ix. Case Study CHRA.

5. LIST OF REFERENCE BOOK(S):


- i. Occupational Safety and Health Act 1994 and Its Regulations.
- ii. Factories and Machinery Act 1967 and Its Regulations.
- iii. Environmental Quality Act 1974 and Its Regulations.
- iv. Guidelines for the Preparation of a Chemical Register.
- v. Guidelines for the Classification of Hazardous Chemicals.
- vi. Guidelines for the Registration of Assessors.
- vii. Manual of Recommended Practice on Assessment of the Health Risks Arising from the Use of Chemicals Hazardous to Health at the Workplace 2017.

6. LIST OF TEACHING AID(S):

- i. LCD Projector.
- ii. Computer.
- iii. White Board with accessories.
- iv. Flip Chart with accessories.

7. LIST OF CLASSROOM ACTIVITIES:

- i. Lecture.
- ii. Practical.



 KEMENTERIAN SUMBER MANUSIA National Institute of Occupational Safety and Health	NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH			
	COURSE SCHEDULE			
	No. Dokumen	No. Pindaan	Tarikh	Muka Surat
NIOSH-PDD-CS-CHRA	00	01 Mar 2019	1 / 7	

COURSE TITLE : CHEMICAL HEALTH RISK ASSESSMENT

MODULE 1 (LEGISLATIVE REQUIREMENTS FOR HAZARDOUS CHEMICALS)

DAY ONE

TIME	HOURL	TOPICS	TRAINER/ FACILITATOR
0830 - 0900	0.50	Registration	NIOSH
0900 - 0930	0.50	Introduction to CHRA Module 1	
0930 - 1030	1.00	Overview of CHRA: • Chemical Management	
1030 - 1045	0.25	MORNING TEA BREAK	
1045 - 1245	2.00	Overview of CHRA: • Introduction to Health Effect of Hazardous Chemical (+Toxicology)	
1245 - 1345	1.00	LUNCH	
1345 - 1515	1.50	Overview OSHA, Regulations & Orders • Prohibition Substance • NADOPOD • CIMAH	
1515 - 1530	0.25	AFTERNOON TEA BREAK	
1530 - 1700	1.50	Overview OSH (USECHH) Reg. 2000	
	6.50	END OF DAY ONE	


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DAY TWO

TIME	HOUR	TOPICS	TRAINER/ FACILITATOR
0900 - 1000	1.00	Overview OSH (CLASS) Reg. 2013	
1000 - 1030	0.50	FMA and Its Regulations <ul style="list-style-type: none"> • Safety, Health & Welfare • Lead, Asbestos & Mineral Dust 	
1030 - 1045	0.25	MORNING TEA BREAK	
1045 - 1115	0.50	Continuation	
1115 - 1300	1.75	Other Regulations Related to Chemical <ul style="list-style-type: none"> -EQA (Scheduled Wastes Regulations 2005) -Pesticide Act 1974 • (Labelling) Regulations 1984 • Pesticides (Highly Toxic Pesticides) Regulation 1996 	
1300 - 1400	1.00	LUNCH	
1400 - 1430	0.50	Continuation	
1430- 1530	1.00	ICOP (CLASS)- Health Hazards <ul style="list-style-type: none"> • Single Classification • Mixture Classification 	
1530 - 1545	0.25	AFTERNOON TEA BREAK	
1545 - 1700	1.25	Continuation	
	6.50	END OF DAY TWO	

DAY THREE

TIME	HOUR	TOPICS	TRAINER/ FACILITATOR
0900 - 1030	1.50	Continuation	
1030 - 1045	0.25	MORNING TEA BREAK	
1045 - 1300	2.25	Continuation	
1300 - 1400	1.00	LUNCH	
1400 - 1500	1.00	Continuation	
	4.75	END OF THE COURSE	

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MODULE 2 (CONTROL OF CHEMICAL HAZARDOUS TO HEALTH)

DAY ONE

TIME	HOUR	TOPICS	TRAINER/ FACILITATOR
0900 - 0930	0.50	Introduction to CHRA Module 2	
0930 - 1030	1.00	Principle of Industrial Hygiene: • Principle and Hierarchy of Control	
1030 - 1045	0.25	MORNING TEA BREAK	
1045 - 1145	1.00	Technical Control (TC): • Elimination • Substitution • Enclosure • Isolation	
1145 - 1300	1.25	TC-Engineering Control • General ventilation • LEV	
1300 - 1400	1.00	LUNCH	
1400 - 1530	1.50	Continuation	
1530 - 1545	0.25	AFTERNOON TEA BREAK	
1545 - 1700	1.25	Continuation	
	6.50	END OF DAY ONE	


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DAY TWO

TIME	HOUR	TOPICS	TRAINER/ FACILITATOR
0900 - 1000	1.00	TC-Engineering Control: <ul style="list-style-type: none"> • Push Pull, High Pressure Low Volume & Water Spray 	
1000 - 1015	0.25	MORNING TEA BREAK	
1015 - 1115	1.00	Continuation	
1115 - 1300	1.75	TC-PPE <ul style="list-style-type: none"> • Respiratory • Dermal 	
1300 - 1400	1.00	LUNCH	
1400 - 1515	1.25	Continuation	
1515 - 1530	0.25	AFTERNOON TEA BREAK	
1530 - 1700	1.50	Organizational Control (OC) <ul style="list-style-type: none"> • SOP • Personal hygiene • PTW • Specific Control • Training 	
	6.50	END OF DAY TWO	

DAY THREE

TIME	HOUR	TOPICS	TRAINER/ FACILITATOR
0900 - 1000	1.00	Emergency Response Preparedness <ul style="list-style-type: none"> • Eye wash. First aid, Fire extinguisher 	
1000 - 1015	0.25	MORNING TEA BREAK	
1015 - 1315	3.00	Chemical Exposure Monitoring	
1315 - 1415	1.00	LUNCH	
1415 - 1515	1.00	Medical Surveillance <ul style="list-style-type: none"> • Biological monitoring 	
1515 - 1530	0.25	AFTERNOON TEA BREAK	
1530 - 1630	1.00	Continuation	
	6.00	END OF THE COURSE	

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MODULE 3 (CHEMICAL HEALTH RISK ASSESSMENT)

DAY ONE

TIME	HOUR	TOPICS	TRAINER/ FACILITATOR
0900 - 0930	0.50	Course Introduction	
0930 - 1030	1.00	Introduction to CHRA Manual 3 rd Edition	
1030 - 1045	0.25	MORNING TEA BREAK	
1045 - 1145	1.00	Gather Information and Divide into Work Unit	
1145 - 1245	1.00	Routes of Exposure	
1245 - 1345	1.00	LUNCH	
1345 - 1515	1.50	Hazard Determination	
1515 - 1530	0.25	AFTERNOON TEA BREAK	
1530 - 1700	1.50	Continuation	
	6.50	END OF DAY ONE	

DAY TWO

TIME	HOUR	TOPICS	TRAINER/ FACILITATOR
0900 – 1030	1.50	Evaluate Exposure & Risk Determination • Inhalation	
1030 - 1045	0.25	MORNING TEA BREAK	
1045 - 1215	1.50	Continuation	
1215 - 1315	1.00	Evaluate Exposure & Risk Determination • Dermal	
1315 - 1415	1.00	LUNCH	
1415 - 1445	0.50	Evaluate Exposure • Ingestion	
1445 – 1530	0.75	Assess Adequacy of Control Measure	
1530 - 1545	0.25	AFTERNOON TEA BREAK	
1545 – 1700	1.25	Continuation	
	6.50	END OF DAY TWO	



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DAY THREE

TIME	HOOR	TOPICS	TRAINER/ FACILITATOR
0900 - 1000	1.00	Conclude, Recommend and Prioritise	
1000 - 1015	0.25	MORNING TEA BREAK	
1015 - 1115	1.00	Continuation	
1115 - 1215	1.00	Report Writing	
1215 - 1300	0.75	Case Study CHRA	
1300 - 1400	1.00	LUNCH	
1400 - 1530	1.50	Continuation	
1530 - 1545	0.25	AFTERNOON TEA BREAK	
1545 - 1700	1.25	Continuation	
	6.50	END OF DAY THREE	

DAY FOUR

TIME	HOOR	TOPICS	TRAINER/ FACILITATOR
0830 - 0900	0.50	BREAKFAST	
0900 - 1300	4.00	Practical Session (Site Visit)	
1300 - 1400	1.00	LUNCH	
1400 - 1530	1.50	<ul style="list-style-type: none"> • Examination Briefing • Practical Session (Data Analysis & Report Preparation) 	
1530 - 1545	0.25	AFTERNOON TEA BREAK	
1545 - 1700	1.25	Continuation	
	6.75	END OF DAY FOUR	

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DAY FIVE

TIME	HOOR	TOPICS	TRAINER/ FACILITATOR
0830 - 1000	1.50	Report Preparation and Presentation	
1000 - 1015	0.25	MORNING TEA BREAK	
1015 - 1230	2.25	Report Presentation	
1230 - 1430	2.00	LUNCH	
1430 - 1600	1.50	Report Presentation	
1600 - 1615	0.25	AFTERNOON TEA BREAK	
1615 - 1645	0.50	Wrap Up	
1645 - 1700	0.25	Evaluation and Closing	NIOSH
	5.75	END OF THE COURSE	

1 pax = 30 minute (20mins Presentation, 10mins Comments)

Last updated on 9th March 2018 by PDD