

Proposal for short course training

Theme: Public Health

1. Course title: Fundamental of Occupational Health and Occupational Medicine

2. Duration: 6 weeks

3. Background and rationale:

Worker's health is an important issue to support productivities of the countries. Only a small proportion of the global workforce has access to occupational health services for primary prevention and control of diseases and injuries caused or aggravated by work. The 60th World Health Assembly endorsed a Global Plan of Action on Workers' Health for 2008-2017 and urged WHO member states to devise national policies and plans for its implementation. Only one third of countries cover more than 30 percent of their workers with occupational health services. Policy- and standard-setting ministries lack capacity for enforcement and monitoring. One third of countries has no ministry of health staff dedicated to workers' health. While most countries have some human resources for health, academic training needs to be scaled up. Although half the countries have national workers' health profiles with data on occupational diseases, injuries, and legislation, information about communicable and noncommunicable diseases among workers and about lifestyle risks are the least-covered topics. Most countries have national institutions carrying out research and training, but the distribution of such entities is uneven across country groups. Awareness about workers' health problems remains low, both in the media and among the general public. Workers' health issues feature in policies concerning management of chemicals, emergency preparedness and response, employment strategies, and vocational training. However, workers' health is seldom considered in policies regarding climate change, trade, economic development, poverty reduction, and general education. Although most countries had some strategies, standards, and targets for coverage of occupational health services, only one third covered more than 30% of their workers with such services. While ministries of health are traditionally strong in legislation, policy- and standard-setting for occupational health services, in most countries these ministries lacked sufficient capacity to deal with workplace inspection and monitoring of workers' health trends.

Human resources in occupational health and occupational medicine are limited, ministries of health had no staff dedicated to workers' health. Most countries had some human resources for occupational health. However, academic training in occupational health

needs to be scaled up at both undergraduate and postgraduate levels. As expected, mostly those in the low income group, human resources for occupational health were not at all sufficient. Several countries reported that occupational health was not included in undergraduate training in medicine (10%), nursing (16%), public health (10%), engineering (19%), and physical science (31%). In those countries where occupational health was included in undergraduate training, this training was usually rated as “insufficient.” Only in the Western Pacific Region were satisfied with the level of inclusion of occupational health in undergraduate training in medicine.

The proportion of countries with occupational health degree programmes in medicine was highest in the European and American regions and lowest in the South-East Asian and African regions. As country incomes rose, so did the proportion of countries offering such programmes. Therefore, several countries particularly, the developing countries need to build up occupational health and occupational medicine practice and that strengthening human resource capacity are a crucial issue.

Conducting this course, will fill a gap of occupational health and occupational medicine practice and additionally, some countries attending, this course will inspire their idea of implementing these practices.

Division of Occupational Medicine, Department of Community Medicine has incorporated well with various clinical specialties in the faculty, other public health and occupational health professions. There are 8 years of experience in conducting the Master degree in Occupational Medicine and the residency training programmes in Preventive Medicine (Occupational Medicine). Together with 15 years of experience in running a short course in occupational health and safety management for hospital personnel. This course produced 3059 health workers (from 640 hospital) across Thailand. Recently in 2017, our division held the international conference on occupational health titled “10th International Joint Conference on Occupational Health for Health Workers: Health & wellbeing in the healthcare sector; addressing current threats to workers” there were 177 participants from 12 countries participated in this conference. Therefore, our division has both academic qualification and facilities to run this course. Furthermore, in the next semester year, the division will start the Master program in Occupational Health and Occupational Medicine (International), if the proposed course is qualified, the participants enrolled will help to gain future international students.

4. Objectives: At the end of the course, participants should be able to...

- 4.1 understand the basic concepts of occupational health and occupational medicine;
- 4.2 the tasks and structure of occupational health service;
- 4.3 the practice which will need occupational medicine;
- 4.4 the most important hazards for injuries and illness at workplace globally;
- 4.5 the major of occupational diseases;
- 4.6 the difference steps in health risk assessment at the workplace;
- 4.7 the association between workplace exposure and health effect;
- 4.8 and the main steps in preventing exposure to health hazards in the work environment.

5. Course contents

5.1 Course Outline

Topic	number of section
Occupational Medicine	15
Occupational Health	7
Occupational Medicine and Occupational Health	6

Occupational Medicine

- Principle of occupational health and occupational medicine (L)
- Occupational health for health worker (L)
- Effect of workplace hazard on health (I) (II) (L)
- Occupational Toxicology (L)
- Occupational medicine service in hospital setting (P)
- Competencies of occupational physician and occupational health professions (L)
- Medical fitness for work (L)
- Medical surveillance program in occupational medicine (L)
- Case study : Occupational diseases (L)
- Return to work medical assessment (L)
- Functional capacity evaluation (L)
- Diagnosis of occupational or work related diseases (L)
- Impairment assessment guidelines (L)
- Basic industrial hygiene ; and important knowledge to safety officer and occupational health doctor (L)

- Presentation of occupational health service plan of individual participants (P)

Occupational Health

- Global situation of occupational health (L)
- Occupational health and safety management (L)
- Basic of Occupational Health Service (L)
- Related occupational health and safety standard and laws (L)
- Difference between ISO 45001 และ OSHAS 18001 (L)
- Injury and illness classification in workplace (L)
- Factory visit ; Occupational health service (F)

Occupational Medicine and Occupational Health

- Hazard Identification of the workplace (L)
- Walk through survey (F)
- Health risk assessment (L)
- Walk through survey in hospital (F)
- Factory visit for walk through survey (F)
- Research in occupational health and occupational medicine (L)

5.2 Practices

1) Writing an essay in the topic of occupational health service policy and plan in the participants' countries.

2) The walk through survey in a factory:

- SCG Phoenix Pulp and Paper Company Limited, Amphur Ubonrat, Khon Kaen.
- Khon Kaen Fishing Net Factory Company Limited, Amphur Muang, Khon Kaen.

5.3 Study Trips/ Field Trips

- A study visit to Eastern Seaboard Industrial Estate, Chonburi and Rayong This site visit is aimed for the participant to understand more of occupational health and safety management in large scale factories.

6. Participants' Criteria

physicians, nurses, occupational safety, public health officer, physiotherapist and other health professions

7. Attendance and Evaluation

Participants who complete the training will receive a certificate based on:

- Real-time class attendance (not less than 80%)
- Intercalation class participation
- Presentation and report
- Evaluation

8. Venue

- Department of Community, Family, and Occupational Medicine, Faculty of Medicine, Khon Kaen University, Khon Kaen.

- Phoenix Pulp & Paper Public Co., Ltd. (Factory). 99 Moo 3 , Kut Nam Sai, Nam Phong 40310 Khon Kaen Thailand

- Accommodation: There are more than ten hotels nearby Faculty of Medicine.

9. Expected Results:

8.1 Participants will increase knowledge and skills for developing and implementing effective occupational health services.

8.2 International linkage and collaboration between Thailand and participants' countries will be enhanced and this linkage will enhance the number of international students the Master course in Occupational Health and Occupational Medicine (International Program).

10. Organization/Institution

10.1 Executing/Implementing Agency

10.1.1 Implementing Agency: Division of Occupational Medicine, Department of Community, Family and Occupational Medicine, Faculty of Medicine, Khon Kaen University

10.1.2 Lecturers and facilities

- There are 11 qualified Faculty members with PhD, MD and Master degree and attaining vast international experiences and 5 supporting staff.

Qualified lecturers

No.	Name-Surname	Affiliation	Qualification
1	Prof. Naesinee Chaiear	Department of Community, Family, and Occupational Medicine, Faculty of Medicine, Khon Kaen University	- Doctor of Medicine; MD - M.MedSc (Occupational health) - Ph.D. (Occupational health) - Thai Board in Preventive (Occupational Medicine)
2	Dr. Phanumas Krisorn	Department of Community, Family, and Occupational Medicine, Faculty of Medicine, Khon Kaen University	- Doctor of Medicine; MD - MSc (Occupational Medicine) - Thai Board in Preventive (Occupational Medicine)
3	Dr. Chatpong Ngamchokwathana	Department of Community, Family, and Occupational Medicine, Faculty of Medicine, Khon Kaen University	- Doctor of Medicine; MD - MSc (Occupational Medicine) - Thai Board in Preventive (Occupational Medicine)
4	Dr.Thanaphoom Aupongkaroon	Department of Community, Family, and Occupational Medicine, Faculty of Medicine, Khon Kaen University	- Doctor of Medicine; MD - MSc (Occupational Medicine) - Thai Board in Preventive (Occupational Medicine)
5	Assoc. Prof. Suda Vannaprasaht	Department of Community, Family, and Occupational Medicine, Faculty of Medicine, Khon Kaen University	- Doctor of Medicine; MD - Dip.Thai Board of Internal Medicine (Toxicology)
6	Asst. Prof. Suchada Paileeklee	Department of Community, Family, and Occupational Medicine, Faculty of Medicine, Khon Kaen University	Ph.D. (Public Health) M.Sc. (Health Economics)
7	Asst. Prof. Sirintip Boonjaraspinyo	Department of Community, Family, and Occupational Medicine,	Ph.D. (Parasitology) M.Sc. (Parasitology)

No.	Name-Surname	Affiliation	Qualification
		Faculty of Medicine, Khon Kaen University	
8	Dr. Kiattisal Butsungnoen	Institute of Public Health, Suranaree University of Technology	- Ph.D. Occupational health and safety of nanotechnology
9	Dr. Warren Silverman		-Board Certified, Internal Medicine -Doctorate, Medicine and Surgery Albany Medical College Albany -Bachelor of Science, Biology Rensselaer Polytechnic Institute Troy
10	Assoc. Prof. Dr. Naruemon Leelayuwat	Department of Physiology Faculty of Medicine Khon Kaen University	- B.Sc. (Physical Therapy) - M.Sc. (Exercise Physiology) - Ph.D. (Physiology)
11	Dr. Mike Slater	family medicine doctor in Amherst, New York and is affiliated with Buffalo General Medical Center.	

10.1.3 Address

Department of Community, Family, and Occupational Medicine, Faculty of Medicine,
Khon Kaen University,

123 Mitraphap Road, Muang

Khon Kaen 40002 Thailand

10.1.4 Course co-ordinators : Prof. Naesine Chaiear

Department of Community, Family, and Occupational Medicine, Faculty of Medicine,
Khon Kaen University, Khon Kaen 40002 Thailand

10.1.5 Mobile phone : 081-708-1866

Office: 043-363-588

Email: cnaesi@gmail.com

10.2 Collaborative Organizations:

10.2.1 Course teaching resources will also be drawn from academic and clinical faculty from KKU Department of Community, Family, and Occupational Medicine, Internal Medicine, Otolaryngology and service areas of Srinagarind Hospital.

10.2.2 Prof. Dr. Kittisak Sawanyawisuth, Department of Internal Medicine, Faculty of Medicine, Khon Kaen University, Khon Kaen 40002 Thailand Office: 043-363-746 Email: yong2001th@yahoo.com

11. Expenditure/Funding

Thailand International Cooperation Agency (TICA)

Schedule for the Training Program: Fundamental of Occupational Health and Occupational Medicine

Date	Time (Thailand time)	session	Topic/Activity	Lecturer/Instructor
Monday 3- Nov-25	9.00-12.00	1	- Orientation of the course (L) - course outline (L)	Prof. Naesinee Chaiear
	13.00-16.00	2	Principle of occupational health and occupational medicine (L)	Prof. Naesinee Chaiear
Tuesday 4- Nov-25	9.00-12.00	3	Global situation of occupational health (L)	Dr.Warren Silverman
	13.00-16.00	4	Occupational health and safety management (L)	Prof. Naesinee Chaiear
Wednesday 5-Nov-25	09.00-12.00	5	Hazard identification of the workplace (L)	Dr. Chatpong Ngamchokwathana
	13.00-16.00	6	Basic of Occupational Health Service (L)	Prof. Naesinee Chaiear
Thursday 6- Nov-25	09.00-12.00	7	Walk through survey in hospital (F) (OH,OM)	Dr. Phanumas Krisorn
	13.00-16.00	8	Walk through survey in hospital (L) (OH,OM)	Dr. Phanumas Krisorn
Friday 7- Nov-25	09.00-12.00	9	Self Directed Learning/ Meet Advisors (L)	Prof. Naesinee Chaiear/ Dr. Phanumas Krisorn/ Dr. Chatpong Ngamchokwathana
	13.00-16.00	10	Occupational medicine service in hospital setting (P) (OM)	Prof. Naesinee Chaiear et al.
Monday 10- Nov-25	09.00-12.00	11	Related occupational health and safety standard and laws (L) (OH)	Prof. Naesinee Chaiear
	13.00-16.00	12	Safety tool for worker protection (L) (OH)	Dr. Kiattisak Batsungnoen
Tuesday 11- Nov-25	09.00-12.00	13	Effect of workplace hazard on health (I) (L) (OM)	Prof. Naesinee Chaiear
	13.00-16.00	14	Effect of workplace hazard on health (II) (L) (OM)	Prof. Naesinee Chaiear
Wednesday 12-Nov-25	09.00-12.00	15	Occupational Toxicology (L) (OM)	Assoc. Prof. Suda Vannaprasaht
	13.00-16.00	16	Injury and illness classification in workplace (L) (OH)	Dr.Kiattisak Batsungnoen
Thursday 13-Nov-25	09.00-12.00	17	Factory visit for walk through survey (F) (OH,OM)	Dr. Phanumas Krisorn
	13.00-16.00	18	Factory visit for walk through survey (L) (OH,OM)	Dr. Phanumas Krisorn
Friday 14- Nov-25	09.00-12.00	19	Self Directed Learning/ Meet Advisors (L)	Prof. Naesinee Chaiear/ Dr. Phanumas Krisorn/ Dr. Chatpong Ngamchokwathana
	13.00-16.00	20	Occupational medicine service in hospital setting (P) (OM)	Prof. Naesinee Chaiear et al.
Monday 17- Nov-25	09.00-12.00	21	Medical fitness for work (L) (OM)	Prof. Naesinee Chaiear
	13.00-16.00	22	Functional capacity evaluation (L) (OM)	QHSC
Tuesday 18-Nov-25	09.00-12.00	23	Medical serveillance program in occupational medicine (L) (OM)	Dr. Phanumas Krisorn
	13.00-16.00	24	Diagnosis of occupational or work related diseases (L) (OM)	Prof. Naesinee Chaiear
Wednesday 19-Nov-25	09.00-12.00	25	Case study : Occupational diseases (L) (OM)	Prof. Naesinee Chaiear/ Dr. Phanumas Krisorn/ Dr. Chatpong Ngamchokwathana
	13.00-16.00	26	Impairment assessment guidelines (L) (OM)	Prof. Naesinee Chaiear
Thursday 20-Nov-25	09.00-12.00	27	Walk through survey in hospital (F) (OH,OM)	Dr. Chatpong Ngamchokwathana
	13.00-16.00	28	Walk through survey in hospital (L) (OH,OM)	Dr. Chatpong Ngamchokwathana
Friday 21- Nov-25	09.00-12.00	29	Self Directed Learning/ Meet Advisors (L)	Prof. Naesinee Chaiear/ Dr. Phanumas Krisorn/ Dr. Chatpong Ngamchokwathana
	13.00-16.00	30	Occupational medicine service in hospital setting (P) (OM)	Prof. Naesinee Chaiear et al.
Monday 24- Nov-25	09.00-12.00	31	Competencies of occupational physician and occupational health professions (L) (OM)	Prof. Naesinee Chaiear
	13.00-16.00	32	Research in occupational health and occupational medicine (L) (OH,OM)	Prof. Naesinee Chaiear

Date	Time (Thailand time)	session	Topic/Activity	Lecturer/Instructor
Tuesday 25- Nov-25	09.00-12.00	33	Occupational health for health worker (L) (OH)	Prof. Naesinee Chaiear
	13.00-16.00	34	Presentation of occupational health service plan of individual participants (P) (OM)	Asst. Prof. Suchada Paileeklee/ Asst. Prof. Sirintip Boonjaraspinyo
Wednesday 26-Nov-25	09.00-12.00	35	Medical surveillance program for noise, organophosphate, solvent exposure (L) (OM)	Dr. Phanumas Krisorn
	13.00-16.00	36	Health risk assessment (L) (OH,OM)	Dr. Phanumas Krisorn
Thursday 27-Nov-25	09.00-12.00	37	Factory visit for walk through survey (F) (OH,OM)	Dr. Chatpong Ngamchokwathana
	13.00-16.00	38	Factory visit for walk through survey (L) (OH,OM)	Dr. Chatpong Ngamchokwathana
Friday 28- Nov-25	09.00-12.00	39	Self Directed Learning/ Meet Advisors (L)	Prof. Naesinee Chaiear/ Dr. Phanumas Krisorn/ Dr. Chatpong Ngamchokwathana
	13.00-16.00	40	Occupational medicine service in hospital setting (P) (OM)	Prof. Naesinee Chaiear et al.
Monday 1- Dec-25	09.00-12.00	41	case study of medical surveillance program (student presentation) (P) (OM)	Prof. Naesinee Chaiear/ Dr. Phanumas Krisorn/ Dr. Chatpong Ngamchokwathana
	13.00-16.00			
Tuesday 2- Dec-25	09.00-12.00	42	Basic industrial hygiene ; and important knowledge to safety officer and occupational health doctor (L) (OM)	Prof. Martie van Tongeren
	13.00-16.00	43	Return to work medical assessment (L) (OM)	Dr. Phanumas Krisorn
Wednesday 3-Dec-25	09.00-12.00	44	Comparisons of occupational health service among developing and developed countries (L) (OH)	Prof. Naesinee Chaiear
	13.00-16.00	45	Meet Advisors (L)	Prof. Naesinee Chaiear/ Dr. Phanumas Krisorn/ Dr. Chatpong Ngamchokwathana
Thursday 4-Dec-25	09.00-12.00	46	Walk through survey in hospital (F) (OH,OM)	Dr. Chatpong Ngamchokwathana
	13.00-16.00	47	Walk through survey in hospital (L) (OH,OM)	Dr. Chatpong Ngamchokwathana
Friday 5- Dec-25	09.00-12.00	48	Self Directed Learning	
	13.00-16.00			
Monday 8- Dec-25	09.00-12.00	49	Student presentation of occupational service plant in aspicitic setting (P) (OM)	Prof. Naesinee Chaiear/ Dr. Phanumas Krisorn/ Dr. Chatpong Ngamchokwathana/ Asst. Prof. Suchada Paileeklee/ Asst. Prof. Sirintip Boonjaraspinyo/ Dr.Thanaphoom Aupongkaroon
	13.00-16.00			
Tuesday 9- Dec-25	09.00-12.00	50	course summary (L)	Prof. Naesinee Chaiear/ Dr. Phanumas Krisorn/ Dr. Chatpong Ngamchokwathana
	13.00-16.00	51	course evaluation (P)/ Closing	
Wednesday 10-Dec-25	09.00-12.00	52	Field trip : Rayong province (F)	Prof. Naesinee Chaiear / Dr. Phanumas Krisorn / Dr.Thanaphoom Aupongkaroon
	13.00-16.00			
Thursday 11-Dec-25	09.00-12.00	53	Field trip : Rayong province (F)	Dr.Thanaphoom Aupongkaroon
	13.00-16.00			
Friday 12- Dec-25	09.00-12.00	54	Field trip : Bangkok (F)	
	13.00-16.00			