

Course syllabus

TMID525 Food- and Water-Borne Diseases (I) and Soil-Transmitted Helminthiases

Academic Year 2016-2018

1. **Institute** Mahidol University
Faculty/Department Faculty of Tropical Medicine, Department of Clinical Tropical Medicine
2. **Course Name:**
 - a. **Course Code:** TMID 525
 - b. **Course Title:** Food- and Water-Borne Diseases (I) and Soil-Transmitted Helminthiases
3. **Number of credits:** 3 (2-2-5)
4. **Programme use:** Graduate Diploma Programme in Tropical Medicine and Hygiene
Master of Clinical Tropical Medicine
Master of Clinical Tropical Medicine (Tropical Paediatrics)
5. **Prerequisite:** None
6. **Type of Course:** Core subject
7. **Condition: class size:** None
8. **Session/Academics year:** The first semester of each academic year
9. **Course description:**

Food and water-borne gastrointestinal diseases caused by bacteria, viruses, protozoa and soil-transmitted helminths, life-cycle, pathogenesis, pathology, clinical manifestations, diagnosis, management, prevention and control

10. **Course expected learning outcomes:**

The students should be able to

- 1) Explain the common food and water-borne and soil-transmitted diseases caused by helminths, including pathogens, pathogenesis, symptoms and signs, diagnosis, treatment and prevention
- 2) Explain the growth development, life-cycle, and relation between causative agents and human
- 3) Explain the epidemiology and the control of the common food and water-borne and soil-transmitted diseases caused by helminths

11. Course outline and constructive alignment

Topic	Title	Hours			Instructors	Course Learning Outcome	Programme ELOs	Teaching & Learning Strategies	Assessment
		Lecture	Lab	Self-study					
1	Epidemiology and Control of Food and Water-borne Diseases	2	0	4	Prof Srivicha Krudsood	3	2.1	PowerPoint presentation, Q&A	MCQ & Short Essay Examination
2	Amoebiasis: Case Discussion, Clinical Management & Laboratory Demonstration	2	1	4.5	Prof Polrat Wilairatana/Assoc Prof Pampen/Asst Prof Kriengsak/Dr Chatporn/Prof Yaowalark/Rachatawan/Dr Supaluk/Dr Aongart/Dr Saengduen	1,2,3	2.1,3.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, laboratory practice MCQ & Short Essay Examination
3	Intestinal Protozoa Causing Diarrhoea: Laboratory Demonstration	2	0	4	Dr Wirongrong/ Dr Chatporn/Prof Sasithon/ Asst Prof Piengchan/ Dr Sungsit	1,2,3	2.1,3.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, laboratory practice MCQ & Short Essay Examination
4	Free Living Amoeba	2	0	4	Asst Prof Kriengsak/Assoc Prof Pampen/Rachatawan/Dr Supaluk/Dr Aongart/Dr Saengduen/Assoc Prof Porntip	1,2,3	2.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, laboratory practice MCQ & Short Essay Examination
5	Case Discussion and Clinical Management of Intestinal Nematodes I(Hookworm, Strongyloides, Capillaria) & Laboratory Demonstration	2	0	4	Dr Chatporn/Assoc Prof Chukiatt/Asst Prof Raweerat/Asst Prof Teera/Dr Supawat	1,2,3	2.1,3.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, laboratory practice MCQ & Short Essay Examination
6	Rota Diarrhoea	2	0	4	Asst Prof Kriengsak/ Asst Prof Raweerat	1,2,3	2.1,3.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion MCQ & Short Essay Examination
7	Laboratory Practice-Stool Examination	2	0	4	Asst Prof Dorn/ Asst Prof	1,2	2.1	PowerPoint presentation,	Practice, MCQ & Short

Topic	Title	Hours			Instructors	Course Learning Outcome	Programme ELOs	Teaching & Learning Strategies	Assessment
		Lecture	Lab	Self-study					
	(Helminth)				Teera/Asst Prof Poom/Asst Prof Urusa/Dr Tippayarat			Laboratory demonstration and practice, Q&A	Essay Examination
8	Intestinal Nematodes II (Ascaris, Trichuris and Enterobius): Case Discussion, Clinical Management & Laboratory Demonstration	2	1	4.5	Assoc Prof Chukiat/Asst Prof Dorn/Asst Prof Teera	1,2,3	2.1,3.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, laboratory practice MCQ & Short Essay Examination
9	Intestinal Flukes: Case Discussion, Clinical Management & Laboratory Demonstration	1	1	1.5	Asst Prof Jittra/Asst Prof Teera/Asst Prof Dorn	1,2,3	2.1,3.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, laboratory practice MCQ & Short Essay Examination
10	Chronic diarrhoea	2	0	4	Assoc Prof Chukiat/Asst Prof Kriengsak	1,2,3	2.1,3.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, MCQ & Short Essay Examination
11	Diarrhoeal Vaccines	2	0	4	Prof Punnee/Dr Chatporn/Assoc Prof Chukiat	1,2,3	2.1,3.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, MCQ & Short Essay Examination
12	Acute Bacterial Diarrhoea: Clinical Approach & Laboratory Diagnosis	0	3	1.5	Prof Polrat/Asst Prof Viravarn/Assoc Prof Chukiat/Asst Prof Kriengsak/Asst Prof Watcharee	1,2,3	2.1,3.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, laboratory practice MCQ & Short Essay Examination
13	Salmonellosis: Case Demonstration & Laboratory diagnosis	2	1	4.5	Dr Watcharapong/Asst Prof Viravarn/Asst Prof Watcharee	1,2,3	2.1,3.1	PowerPoint presentation, Case Discussion, Q&A	Discussion, MCQ & Short Essay Examination
14	Intestinal Cestodes: Clinical manifestation & Laboratory Demonstration	0	1	0.5	Asst Prof Teera	1,2,3	2.1,3.1	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, laboratory practice MCQ & Short Essay

Topic	Title	Hours			Instructors	Course Learning Outcome	Programme ELOs	Teaching & Learning Strategies	Assessment
		Lecture	Lab	Self-study					
								Examination	
15	Seminar on Food and Water-borne Diseases in Different Regions: Student's Experiences	0	2	1	Prof Polrat/Prof Srivicha/Asst Prof Kriengsak/Assoc Prof Chukiat/Prof Yaowalark	1,2,3	2.1,3.1	Student presentation, Case discussion, seminar	Group presentation, participation, discussion, MCQ & Short Essay Examination
16	Fluid and Electrolyte Replacement	1	0	2	Assoc Prof Chukiat/Asst Prof Kriengsak	1	2.1,3.1	PowerPoint presentation, Q&A	MCQ & Short Essay Examination
17	Laboratory Practice-Stool examination I	0	3	1.5	Prof Yaowalark/Assoc Prof Porntip/Rachatawan/Asst Prof Aongart/Dr Saengduen	1,2	2.1	PowerPoint presentation, Laboratory demonstration and practice, Q&A	laboratory practice MCQ & Short Essay Examination
18	Laboratory Practice-Stool examination II				Prof Yaowalark/Assoc Prof Porntip/Rachatawan/Assoc Prof Paron/Assoc Prof Chalit	1,2	2.1	PowerPoint presentation, Laboratory demonstration and practice, Q&A	laboratory practice MCQ & Short Essay Examination
	Total	30	30	75					

11. Teaching and Learning Activities

Lecture
 Case discussion and seminar/student presentation
 Laboratory demonstration

12. Teaching media

PowerPoint presentation
 Case Scenario
 Microscope

13. Course achievement and evaluation

Participation and discussion during academic activity	20%
Multiple-choice question and short essay examination	80%

Students who get grade lower than B, will need oral re-examination by 2 committees within 2 weeks after first examination. Student who pass the re-examination will get grade B.

14. Course evaluation

Discussion and comments session at the end of the course
 Questionnaire for contentment and suggestion for the course

15. References

- 16.1. Guerrant RL, et al. *Tropical Infectious Diseases: Principles, Pathogens, & Practice*. 2nd ed: Elsevier Inc.; 2006.
- 16.2. Farrar J, Hotes P, Junghanss T, Kang G, Lalloo D, and White NJ. *Manson's Tropical Diseases*, 23rd ed. Oxford, UK: Elsevier; 2014
- 16.3. Bennett JE, Dolin R and Blaser MJ. *Mandell Douglas, and Bennett's Principles and Practice of Infectious Diseases*. 8th ed. Oxford, UK: Elsevier; 2014
- 16.4. Anthony SF, Braunwald E, Kasper DL, and Hauser SL. *Harrison's Principles of Internal Medicine* 17th ed; 2008.

16. Instructors:

Prof Yaowalark Sukthana
 Prof Polrat Wilairatana
 Prof Srivicha Krudsood
 Prof Sasithon Pukrittayakamee
 Assoc Prof Chukiat
 Assoc Prof Parmpen
 Assoc Prof Chalit
 Assoc Prof Jittra
 Assoc Prof Paron
 Asst Prof Teera
 Asst Prof Viravarn Luvira
 Asst Prof Dorn

Asst Prof Watcharee

Asst Prof Kriengsak

Asst Prof Porntip Petmitr

Asst Prof Raweerat

Dr Chatporn Kittitrakul

Dr Watcharapong Piyaphanee

Dr Wirongrong Chierakul

Dr Supaluk

Dr Aongart Mahittikorn

Lect Rachatawan

17. Course responsibility:

Prof Polrat Wilairatana

Department of Clinical Tropical Medicine, Faculty of Tropical Medicine, Mahidol University