

Course syllabus

TMMH 503 Food- and Water-borne Diseases: Tissue Parasites

Academic Year 2018-2022

1. **Institute** Mahidol University
Faculty/Department Faculty of Tropical Medicine, Department of Clinical Tropical Medicine
2. **Course Name:**
 - a. **Course Code:** TMMH 503
 - b. **Course Title:** Food- and Water-borne Diseases: Tissue Parasites
3. **Number of credits:** 2 (2-0-4)
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:**
 Pathogens; intermediate hosts; pathogenesis; pathology; clinical manifestation; diagnosis, management; prevention and control
10. **Course expected learning outcomes:**

At the end of the course, the students should be able to

CLO1: Describe the tissue parasitic diseases in aspect of biological pathogens, intermedi-ate hosts; pathogenesis; pathology; clinical manifestations; diagnosis; management; prevention and control

CLO2: Plan for management of tissue parasitic diseases in the level of individual and community

CLO3: Communicate clinical information using appropriate technologies

11. Course outline and constructive alignment

Topic	Title	Hours			Instructors	Course Learning Outcome	Programme ELOs	Teaching & Learning Strategies	Assessment
		Lecture	Lab	Self-study					
1	Overview Tissue helminth and protozoa morphology	3	0	6	Assoc. Prof. Paron, Asst. Prof. Aongart	1,2,3	2.1,3.1	Lecture, Lab. demonstration	Formative assessment: oral reflection
2	Gnathostomiasis and Creeping Eruption	2	0	4	Asst. Prof. Jittima Assoc. Prof. Dorn, MD. Lect. Supitcha, MD.	1,2,3	2.1,3.1	Lecture, case discuss, Lab. demonstration	Formative assessment: oral reflection, MCQ Examination
3	Visit Gnathostomiasis Clinic (OPD)	1	0	2	Asst. Prof. Jittima, MD.	1,2,3	2.1,3.1	Ward round	Formative assessment: oral reflection, MCQ Examination
4	Trichinellosis	2	0	4	Prof. Punnee, MD. Dr. Prakaykaew, MD. Asst. Prof. Teera, MD.	1,2,3	2.1,3.1	Lecture case discussion, Lab. demonstration	Formative assessment: oral reflection, MCQ Examination
5	Sarcocystis	1	0	2	Asst. Prof. Aongart			Lecture, Lab. demonstration	Formative assessment: oral reflection, MCQ Examination
6	Case discussion (larva migran)	1	0	2	Prof. Punnee, MD Assoc. Prof. Dorn, MD	1,2,3	2.1,3.1	Case discussion	Formative assessment: oral reflection, MCQ Examination
7	Eosinophilic Meningoencephalitis	2	0	4	Assoc. Prof. Weerapong, et al. Assoc. Prof. Chalit, Assoc. Prof. Dorn Assoc. Prof. Paron, Assoc. Prof. Poom	1,2,3	2.1,3.1	Lecture, Lab. demonstration	Formative assessment: oral reflection, MCQ Examination
8	Free living amoeba	2	0	4	Assoc. Prof. Kriengsak, MD., Ms. Ratchatawan, Assoc. Prof. Panpen, MD. Asst. Prof. Aongart, Asst. Prof. Saengduen, Asst. Prof. Supaluk	1,2,3	2.1,3.1	Lecture, case discussion, Lab. demonstration	Formative assessment: oral reflection, MCQ Examination
9	Toxoplasmosis	3	0	6	Prof. Yaowalark, MD., Asst. Prof. Aongart Assoc. Prof. Chukiat, MD., Asst. Prof. Viravarn Lect. Sant, MD., Ms.	1,2,3	2.1,3.1	Lecture, Lab. demonstration	Formative assessment: oral reflection, MCQ Examination

Topic	Title	Hours			Instructors	Course Learning Outcome	Programme ELOs	Teaching & Learning Strategies	Assessment
		Lecture	Lab	Self-study					
					Rachatawan, Asst. Prof. Saengduen, Asst. Prof. Supaluk				
10	Liver Fluke	3	0	6	Assoc. Prof. Weerapong, et al. Assoc. Prof. Poom, Asst. Prof. Urusa	1,2,3	2.1,3.1	Lecture, case discussion, Lab. demonstration	Formative assessment: oral reflection, MCQ Examination
11	Echinococcosis	1	0	2	Dr. Wirongrong, MD., Dr. Prakaykaew, MD.	1,2,3	2.1,3.1	Lecture, case discussion	Formative assessment: oral reflection, MCQ Examination
12	Cysticercosis and Sparganosis	3	0	6	Dr. Prakaykaew, MD., Assoc. Prof. Dr.Dorn, MD. Assoc. Prof. Poom	1,2,3	2.1,3.1	Seminar, Lab. demonstration	Discussion, Observation (rubric scale)
13	Lung Fluke	3	0	6	Asst. Prof. Udomsak, MD. Assoc. Prof. Chalit Asst. Prof. Urusa	1,2,3	2.1,3.1	Lecture, Case discussion, Lab. demonstration	Formative assessment: oral reflection, MCQ Examination
14	Blood Flukes	3	0	6	Assoc. Prof. Weerapong, et al. Assoc. Prof. Poom	1,2,3	2.1,3.1	Lecture Case discussion, Lab. demonstration	Formative assessment: oral reflection, MCQ Examination
	Total	30	0	60					

12. Teaching and Learning Activities

Lecture
Case discussion and seminar
Laboratory demonstration

13. Teaching media

PowerPoint presentation
Case Scenario
Microscope

14. Course achievement and evaluation

CLO	Teaching/learning strategies	Assessment methods and weight (%)	
		Assessment Methods/tools	%
CLO1	Lecture, seminar, case discussion/ward round	MCQ	60
		Observe (Rubric scale)	4
CLO2	Seminar, case discussion	MCQ	20
		Observe (Rubric scale)	3
CLO3	Seminar, case discussion	Observe (Rubric scale)	3
Total weight			100

The summative evaluation of the student will be criteria based using the cutoff point as the following

Score (total 100)	grade
≥ 80	A
70 - <80	B+
60 - <70	B
50 - <60	C+
40 - <50	C
30 - <40	D+
20 - <30	D
< 20	F

The student who achieve the score 40-<60 can request to perform re-examination on the failed aspect of summative assessment. For student who achieve the score less than 40, the re-examination is not allowed.

15. Course evaluation

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

16. References

- 16.1. Service M. *Medical Entomology for Students*. 5th ed. Cambridge, UK: Cambridge University Press, 2012.
- 16.2. Bennett JE, Dolin R and Blaser MJ. *Mandell Douglas, and Bennett's Principles and Practice of Infectious Diseases*. 8th ed. Oxford, UK: Elsevier; 2015.
- 16.3. Farrar J, Hotes P, Junghanss T, Kang G, Lalloo D, and White NJ. *Manson's Tropical Diseases*, 23rd ed. Oxford, UK: Elsevier; 2014.
- 16.4. Eddleston M, Davidson R, Wilkinson R, and Pierini S. *Oxford Handbook of Tropical Medicine*, 2nd ed. Oxford, UK: Oxford University Press; 2014.

17. Instructors:

Prof Polrat Wilairatana
Prof Pratap Singhasivanon
Prof Yaowalark Sukthana
Prof Punnee Pitisutthithum
Prof Arjen Dondorp
Assoc Prof Yupaporn Wattanagoon
Assoc Prof Paron Deekumyoy
Assoc Prof Chalit Komalamisra
Assoc Prof Chukiat
Asst Prof Teera Kusolsuk
Asst Prof Watcharee Chocejindachai
Asst Prof Jittima Dhitavat
Asst Prof Udomsak Silachamroon
Asst Prof Kriengsak Limkittidul
Asst Prof Dr Dorn Wattanagulpanich
Asst Prof Dr Urusa Tankum
Asst Prof Poom Adisakwattana
Dr Chayasin Mansanguan
Dr Kittiyod Poovorawan
Dr Prakaykaew Charunwatthana
Dr Wirongrong Chierakul
Lect Rachatawan Chiabchalard
Dr Maleerat Sutherat
Dr Sant Muangnoicharoen

18. Course responsibility:

Asst Prof Kriengsak Limmkittikul
Department of Tropical Paediatrics, Faculty of Tropical Medicine, Mahidol University

Rubric score for TMMH503

- Seminar (1 session) (10% of course)

CLO1: Describe the tissue parasitic diseases in aspect of pathogen, intermediate hosts; pathogenesis; pathology; clinical manifestation; diagnosis; management; prevention and control (40%)

CLO1	10%	8%	5%	2%	0
Pathogen/intermediate host	Able to describe with scientific rational	Able to describe with partial scientific rational	Able to describe without scientific rational	Able to partial describe	Unable to describe
Pathology/pathogenesis	Able to describe with scientific rational	Able to describe with partial scientific rational	Able to describe without scientific rational	Able to partial describe	Unable to describe
Clinical manifestation	Able to describe with scientific rational	Able to describe with partial scientific rational	Able to describe without scientific rational	Able to partial describe	Unable to describe
Principle of management	Able to describe with scientific rational	Able to describe with partial scientific rational	Able to describe without scientific rational	Able to partial describe	Unable to describe

CLO2: Plan for management of tissue parasitic diseases in the level of individual and community (30%)

CLO2	10%	5%	0
Management individual	Comprehensive	Describe important aspect	Unable to describe
Management community	Comprehensive	Describe important aspect	Unable to describe
Prevention individual	-	Describe important aspect	Unable to describe
Prevention community	-	Describe important aspect	Unable to describe

CLO3: Communicate clinical information using appropriate technologies (30%)

CLO3	10%	5%	0
Presentation idea/opinion	Information is directly (76-100%) linked to topic	Information is partial (51-75%) linked to topic	Information is not linked (<25%) to topic
Presentation skill	-	Easy to understand	Not understandable
Discussion	Understandable response with appropriate scientific rational	Understandable response with partially appropriate scientific rational	Could not response
Manner	-	Appropriate	Unacceptable