

Course syllabus

TMMH 505 Non-mosquito Vector-borne Diseases and Zoonosis 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 505
 - b. **Course Title:** Non-mosquito Vector-borne Diseases and Zoonosis
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:**
Epidemiology; pathogens; vectors; life cycle; pathogenesis; pathology; clinical manifestations; diagnosis; treatment; prevention and control
10. **Course goal:** At the end of the course, students will know all aspects of important non-mosquito vector-borne diseases and zoonosis
11. **Course objectives:** During the course, the students will
 - a. Gain knowledge on common arthropods vectors
 - b. Learn about common arthropods-borne diseases and zoonosis
 - c. Study and discuss cases scenario, demonstration of arthropods-borne diseases and zoonosis
12. **Course expected learning outcomes:**
Upon the completion of the course, the students will be able to
 - 1) Explain and differentiate type of common non-mosquito vectors; including residence, epidemiology and life-cycle including prevention and control
 - 2) Explain the causative agents of tropical diseases caused by non-mosquito vector-borne diseases and zoonosis; including physical quality, reservoirs, laboratory diagnosis, habitat and distribution, life-cycle, prevention and control
 - 3) Describe clinical manifestations, laboratory findings, complication, treatment and prognosis of common non-mosquito vector-borne diseases and zoonosis
 - 4) Approach and discuss the management of non-mosquito vector-borne diseases and zoonosis

11. Course outline and constructive alignment

Topic	Title	Hours			Instructors	Course Learning Outcome	Programme ELOs (MCTM)	Teaching & Learning Strategies	Assessment
		Lecture	Lab	Self-study					
1	Epidemiology of Non-mosquito Vector-borne Diseases & Zoonosis	2	0	4	Prof Pratap	1,2	2	PowerPoint presentation, Q&A	MCQ Examination
2	Vector Morphology I: Tick & Mites, Lice, Fleas and Laboratory Demonstration	2	0	4	Dr Sungsit & Entomology Staff	1	2	PowerPoint presentation, Laboratory demonstration, Q&A	Post-test: OSCE MCQ Examination
3	Rickettsial Diseases: Causative Organisms, Clinical Aspects and Laboratory Diagnosis	2	0	4	Dr Wirongrong/Dr Prakaykaew/ Asst Prof Piengchan/ Dr Sungsit	1,2,3,4	2	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, MCQ Examination
4	Vector Morphology II: Biting Flies, Flies, Biting Bugs and Laboratory Demonstration	1	0	2	Asst Prof Jiraporn & Entomology Staff	1	2	PowerPoint presentation, Laboratory demonstration, Q&A	Post-test: OSCE MCQ Examination
5	Trypanosomiasis: Causative Organisms, Clinical Aspects and Laboratory Diagnosis	2	0	4	Dr Wirongrong/ Dr Chayasin/ Dr Aongart	1,2,3,4	2	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, MCQ Examination
6	Leishmaniasis: Causative Organisms, Clinical Aspects and Laboratory Diagnosis	2	0	4	Prof Arjen Dondorp/ Dr Wirongrong/ Asst Prof Jittima/ Asst Prof Pomtip	1,2,3,4	2	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, MCQ Examination
7	Leptospirosis: Causative Organisms, Epidemiology, Clinical Aspects and Laboratory Diagnosis	2	0	4	Prof Polrat/ Dr Kittiyod/Asst Prof Viravarn/ Asst Prof Noppadon/ Asst Prof Thareerat & Microbiology Staff	1,2,3,4	2	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, MCQ Examination
8	Bartonella, Tularaemia, Rat Bite Fever and Cat-Scratch Diseases: Causative Organisms, Epidemiology, Clinical Aspects and Laboratory Diagnosis	3	0	6	Dr Wirongrong/ Dr Muthita	1,2,3,4	2	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, MCQ Examination
9	Rabies	2	0	4	Prof Terapong/ Dr Watcharapong/ Dr Akanitt	1,2,3,4	2	PowerPoint presentation, Case Discussion, Q&A	Discussion, MCQ Examination

Topic	Title	Hours			Instructors	Course Learning Outcome	Programme ELOs (MCTM)	Teaching & Learning Strategies	Assessment
		Lecture	Lab	Self-study					
10	Brucellosis	2	0	4	Assoc Prof Yupaporn/ Dr Watcharapong/ Asst Prof Supat/ Dr Wirongrong	1,2,3,4	2	PowerPoint presentation, Case Discussion, Q&A	Discussion, MCQ Examination
11	Cutaneous Manifestation of Scabies, Pediculosis, Paederous Dermatitis and Other Insect Infestations	2	0	4	Asst Prof Jittima/ Dr Supitcha/ Dr Sungsit	1,2,3,4	2	PowerPoint presentation, Laboratory demonstration, Case Discussion, Q&A	Discussion, MCQ Examination
12	Case Discussion: Non Mosquito Vector-borne Diseases	5	0	10	Dr Wirongrong/ Dr Prakaykaew/ Dr Chayasin/ Dr Janjira	1,2,3,4	2	Group presentation, Case Discussion, Q&A	Group presentation, participation, discussion, MCQ Examination
13	Anthrax	1	0	2	Assoc Prof Vipa/ Dr Wirongrong/ Dr Nathamon	1,2,3,4	2	PowerPoint presentation, Case Discussion, Q&A	Attendance, MCQ Examination
14	Emerging Zoonosis	2	0	4	Dr Wirongrong/ Dr Sant/ Asst Prof Dr Kobporn/ Dr Janjira	1,2,3,4	2	PowerPoint presentation, Case Discussion, Q&A	Attendance, MCQ Examination
	Total	30	0	45					

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, Laboratory demonstration & practice, Q&A	MCQ	27
CLO2	Lecture, Laboratory demonstration & practice, Q&A	MCQ	24
CLO3	Lecture, Games, Case discussion and seminar, Problem solving, Assignment, Q&A	MCQ	22
CLO4	Lecture, Games, Case discussion and seminar, Problem solving, Assignment, Q&A	MCQ	27
Total weight			100

Grade assignment is determined by mean and standard deviation of the class. Students who get grade lower than B, will need re-examination using same MCQ (in shuffled order of items and choices) within 2 weeks after first examination. Student must get more than 60% correct answer then they will get Grade B at the maximum, regardless of any marks at re-examination.

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; 2014
- 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 Arjen Dondorp
Prof Terapong Tantawichian
Assoc Prof Yupaporn Wattanagoon
Assoc Prof Vipha Thanachartwet
Assist Prof Jiraporn Ruangsittichai
Assist Prof Supat Chamnanchanunt

Asst Prof Viravarn Luvira
Asst Prof Jittima Dhitavat
Asst Prof Noppadon Tangpukdee
Asst Prof Piengchan Sonthayanon
Asst Prof Porntip Petmitr
Asst Prof Thareerat Kalambaheti
Dr Chayasin Mansanguan
Dr Kittiyod Poovorawan
Dr Watcharapong Piyaphanee
Dr Wirongrong Chierakul
Dr Sungsit Sungvornyothin
Dr Aongart Mahittikorn
Dr Muthita Vanaporn
Dr Nathamon Kosoltanapiwat
Dr Supitcha Kamolratanakul

18. Course responsibility:

Dr Wirongrong Chierakul

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