

Course syllabus

TMCD523 Laboratory Methods for Clinical Research

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:** TMCD 523
 - b. **Course Title:** Laboratory Methods for Clinical Research
3. **Number of credits:** 1 (1-0-2)
4. **Programme use:** Master of Clinical Tropical Medicine
5. **Prerequisite:** None
6. **Type of Course:** Elective Subject
7. **Condition: class size:** minimum 5, maximum 15
8. **Session/Academics year:** The second semester of each academic year
9. **Course description:**

Principle and procedure on sample test and laboratory analyses related to tropical disease.
Microbiological laboratory, immunodiagnosics, molecular biological and tissue culture
10. **Course expected learning outcomes:**

The students should be able to

 - 1) Explain the laboratory method for clinical research
 - 2) Correctly interpret the result of laboratory analysis
 - 3) Choose appropriate laboratory method for clinical research
 - 4) Apply the knowledge to the laboratory interpretation in clinical research articles

10. Course outline and constructive alignment

Day	Title	Hours			Instructor	Course Learning Outcome	Programme ELOs	Learning Activities	Assessment
		Lecture	Lab	Self-study					
1	Principle of Clinical Laboratory Medicine	2	0	4	Assoc Prof Kesinee	1,2,3,4	2.1,3.1	PowerPoint Presentation Discussion/Seminar	Attendance, Student participation, discussion
2	Identification of Malaria Parasites	2	0	4	Assoc Prof Kesinee	1,2,3,4	2.1,3.1	PowerPoint Presentation Discussion/Seminar	Attendance, Student participation, discussion
3	Diagnostic Pathology	3	0	6	Assoc Prof Pampen	1,2,3,4	2.1,3.1	PowerPoint Presentation Discussion/Seminar	Attendance, Student participation, discussion
4	Diagnostic Clinical Chemistry	2	0	4	Assoc Prof Wattana	1,2,3,4	2.1,3.1	PowerPoint Presentation Discussion/Seminar	Attendance, Student participation, discussion
5	Diagnostic Helminthic Infections	2	0	4	Assoc Prof Paron	1,2,3,4	2.1,3.1	PowerPoint Presentation Discussion/Seminar	Attendance, Student participation, discussion
6	Diagnostic Microbiology	3	0	6	Asst Prof Narisara	1,2,3,4	2.1,3.1	PowerPoint Presentation Discussion/Seminar	Attendance, Student participation, discussion
	Total	15	0	30					

11. Teaching and Learning Activities

Lecture
 Group discussion/Seminar
 Laboratory demonstration and practice

12. Teaching media

Powerpoint presentation
 Laboratory specimens
 Microscopes

13. Course achievement and evaluation

¹ Attendance of academic activity	40%
Participation and appropriate discussion in class	40%
Final Examination	20%

Note¹ Students must attend at least 80% of all activities.

14. Course evaluation

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

15. References

- 15.1 Gail L Woods, Yezid Gutierrez. Diagnostic Pathology of Infectious Diseases, 1993. Pennsylvania. USA.
- 15.2 Ronald A Sacher, Richard A McPherson. Widman's clinical interpretation of laboratory tests. 10th edition. 1991, Philadelphia, USA.
- 15.3 Davids JM. Basic Cell Culture, 2002, Oxford.U.K.
- 15.4 Schmidt G.D. and Roberts LS. Foundations of Parasitology 2000. USA.

16. Instructors:

Assoc Prof Kesinee Chotivanich
 Assoc Prof Parnpen
 Assoc Prof Paron Deekumyoy
 Assoc Prof Wattana Leowattana
 Asst Prof Narisara Chantratita

17. Course responsibility:

Assoc Prof Kesinee Chotivanich
 Department of Clinical Tropical Medicine, Faculty of Tropical Medicine, Mahidol University