

**Doctor of Philosophy**  
**Program in Tropical Medicine International Program**  
**(Updated version, 2013)**

**1. Degree Program** : Doctor of Philosophy Program in Tropical Medicine  
(International Program)

**2. Degree Offered** : Doctor of Philosophy (Tropical Medicine)  
Ph.D. (Tropical Medicine)

**3. Responsible Department/Faculty**

Faculty of Medicine, Khon Kaen University.

Graduate School, Khon kaen University.

**4. Objectives** :

The international program for Ph.D. in Tropical Medicine (Edited program, 2013) aims to produce Ph.D. graduates who have the following features.

(1) An understanding deeply in the fields of Medical Biochemistry and Molecular Biology for applying the knowledge to conduct a research or to work in international level.

(2) The ability to conduct a research or to manage an academic project that leads to the development of knowledge or innovation in Medical Biochemistry and Molecular Biology and related fields.

(3) The ability to think critically, analyze, synthesize, communicate, use computers and information technology as well as manage with modern technology that leads to the development of knowledge and use in international level.

(4) Moral, ethics, integrity in academic work, leadership in promoting the spiritual, moral and ethical conduct, academic and professional ethics, and interpersonal skills and responsibility.

**5. Curriculum**

**5.1 Total Credit Hours**

Total Credit hours for Type 1.1 Program not less than 48 Credits

Total Credit hours for Type 2.1 Program not less than 48 Credits

Total Credit hours for Type 2.2 Program not less than 72 Credits

## 5.2 Program Structures

	Number Credits		
	Type 1.1	Type 2.2	Type 2.1
1) Compulsory courses	3 (non credits)	9	9
2) Elective courses	-	3	15
3) Dissertation	48	36	48
Total	48	48	72

## 6. Courses

### 6.1 Compulsory courses:

#### Type 1.1 Program (Non Credits)

*359 991	Seminar in Advanced Tropical Medicine I	1(1-0-2)
*359 992	Seminar in Advanced Tropical Medicine II	1(1-0-2)
*359 993	Seminar in Advanced Tropical Medicine III	1(1-0-2)

#### Type 2.1 Program

*359 701	Tropical Medicine	3(3-0-6)
356 714	Medical Science Research Methodology	3(2-3-6)
*359 991	Seminar in Advanced Tropical Medicine I	1(1-0-2)
*359 992	Seminar in Advanced Tropical Medicine II	1(1-0-2)
*359 993	Seminar in Advanced Tropical Medicine III	1(1-0-2)

**Type 2.2 Program** : Students must register at least 9 credits of the course listed below or some additional courses which will be notified later with the permission of the Program Executive Committee.

*359 701	Tropical Medicine	3(3-0-6)
356 714	Medical Science Research Methodology	3(2-3-6)
*359 991	Seminar in Advanced Tropical Medicine I	1(1-0-2)

*359 992	Seminar in Advanced Tropical Medicine II	1(1-0-2)
*359 993	Seminar in Advanced Tropical Medicine III	1(1-0-2)

## 6.2 Elective courses :

**Type 1.1 Program :** None

**Type 2.1 Program :** Not less than 3 Credits

Students can choose the courses according to the permission of the Program Executive Committee as listed below or some additional courses in related graduate levels with the permission of the Program Executive Committee.

356 712	Cells and Molecular Biology	3(3-0-6)
*359 710	Advanced Tropical Medicine	1(1-0-2)
*359 711	Tropical Disease Control	2(2-0-4)
*359 712	Experience in tropical Health	2(2-0-4)
362 712	Infection and Immunity I	2(2-0-4)
362 713	Infection and Immunity II	4(4-0-8)
363 711	Medical Nutrition	2(2-0-4)
363 718	Principles and Techniques in Molecular Biology	1(1-0-2)
364 701	Medical Parasitology	4(3-3-8)
363 718	Medical Entomology	2(1-3-4)
364 712	Medical Malacology	2(1-3-4)
364 716	Immunology of Parasitic Infections	2(2-0-4)
*365 743	Tropical Pathology	2(2-0-4)
*366 743	Principle of Medicinal Plant Development and Pharmacological Testing	3(2-1-5)
*366 744	Natural Products in Medicine	2(2-0-4)
*366 745	Clinical Pharmacology in Tropical Medicine I	2(2-0-4)
*379 794	Clinical Tropical Infectious Diseases	2(1-3-4)
381 703	Health Systems Management	3(3-0-6)

**Type 2.2 Program :** The course is designed to encourage students to get knowledge and research skills in Medical Biochemistry and Molecular Biology and in related fields. Students must register at least 15 credits according to the guidance of their advisor with the permission of the Program Executive Committee.

*356 712	Cell Molecular and Biology	3(3-0-6)
*359 710	Advanced Tropical Medicine	1(1-0-2)
*359 711	Tropical Disease Control	2(2-0-4)
*359 712	Experience in tropical Health	2(2-0-4)
*362 712	Infection and Immunity I	2(2-0-4)
*362 713	Infection and Immunity II	4(4-0-8)
363711	Medical Nutrition	2(2-0-4)
363718	Principles and Techniques in Molecular Biology	1(1-0-2)
364 701	Medical Parasitology	4(3-3-8)
364 711	Medical Entomology	2(1-3-4)
364 712	Medical Malacology	2(1-3-4)
364 716	Immunology of Parasitic Infections	2(2-0-4)
*365 743	Tropical Pathology	2(2-0-4)
*366 744	Natural Products in Medicine	2(2-0-4)
*366 743	Principle of Medicinal Plant Development and Pharmacological Testing	3(2-3-5)
*366 745	Clinical Pharmacology in Tropical Medicine I	2(2-0-4)
374 754	Community Epidemiology	2(1-3-4)
*379 794	Clinical Systems Management	3(3-0-6)
381 703	Health Systems Management	3(3-0-6)

### 6.3 Dissertation

#### Type 1.1 Program :

*359 997	Thesis	48 Credits
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#### Type 2.1 Program :

*359 999	Thesis	36 Credits
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#### Type 2.2 Program :

*359 998	Thesis	48 Credits
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## 7. Class Schedule

### Plan for Type 1.1

Course	Year 1,First semester	Credit
Code	Course Name	Type 1.1
*359 997	Dissertation	9
	Total Credits registered	9
	Sum of the credits	9
Course	Year 1, Second semester	Credit
Code	Course Name	Type 1.1
*359 991	Seminar in Advance Tropical Medicine I	1(1-0-2) Noncredit course
*359 997	Dissertation	9
	Total Credits registered	9
	Sum of the credits	18
Course	Year 2,First semester	Credit
Code	Course Name	Type 1.1
*359 992	Seminar in Advance Tropical Medicine II	1(1-0-2) Noncredit course
*359 997	Dissertation	9
	Total Credits registered	9
	Sum of the credits	27
Course	Year 2,Second semester	Credit
Code	Course Name	Type 1.1
*359 993	Seminar in Advance Tropical Medicine III	1(1-0-2) Noncredit course
*359 997	Dissertation	9
	Total Credits registered	9
	Sum of the credits	36

Course	Year 3,First semester	Credit
Code	Course Name	Type 1.1
*359 997	Dissertation	9
	Total Credits registered	9
	Sum of the credits	45

Course	Year 3,Second semester	Credit
Code	Course Name	Type 1.1
*359 997	Dissertation	9
	Total Credits registered	9
	Sum of the credits	48

Plan for Type 2.1 and 2.2

Course	Year 1,First semester	Credit	
Code	Course Name	Type 2.1	Type 2.1
*359 701	Tropical Medicine	3(3-0-6)	3(3-0-6)
XXX XXX	Elective course	3	6
*359 999	Dissertation	3	-
	Total Credits registered	9	9
	Sum of the credits	9	9

Course	Year 1,Second semester	Credit	
Code	Course Name	Type 2.1	Type 2.1
*356 714	Medical Science Research Methodology	3(2-3-6)	3(2-3-6)
*359 991	Seminar in Advanced Tropical Medicine I	1(1-0-2)	1(1-0-2)
XXX XXX	Elective course	-	6
*359 999	Dissertation	5	-
	Total Credits registered	9	10
	Sum of the credits	18	19

Course	Year 2,First semester	Credit	
Code	Course Name	Type 2.1	Type 2.2
*359 992	Seminar in Advanced Tropical Medicine II	1(1-0-2)	1(1-0-2)
*359 998	Dissertation	-	9
*359 999	Dissertation	8	-
	Total Credits registered	9	10
	Sum of the credits	27	32

Course	Year 2,second semester	Credit	
Code	Course Name	Type 2.1	Type 2.2
*359 993	Seminar in Advanced Tropical Medicine III	1(1-0-2)	1(1-0-2)
*359 998	Dissertation	-	9
*359 999	Dissertation	8	-
	Total Credits registered	9	10
	Sum of the credits	36	42

Course	Year 3,First semester	Credit	
Code	Course Name	Type 2.1	Type 2.1
*359 998	Dissertation	-	9
*359 999	Dissertation	9	-
	Total Credits registered	9	9
	Sum of the credits	45	51

Course	Year 3,Second semester	Credit	
Code	Course Name	Type 2.1	Type 2.1
*359 998	Dissertation	-	9
*359 999	Dissertation	3	-
	Total Credits registered	3	9
	Sum of the credits	48	60

Course	Year 4,First semester	Credit	
Code	Course Name	Type 2.1	Type 2.1
*359 998	Dissertation	-	9
	Total Credits registered	-	9
	Sum of the credits	-	69

Course	Year 4,Second semester	Credit	
Code	Course Name	Type 2.1	Type 2.1
*359 998	Dissertation	-	3
	Total Credits registered	-	3
	Sum of the credits	-	72