Knowledge Sharing for MSc.(Pharmacology) course in Mahidol University, Thailand from 7 September 2015 to 30 September 2017

Dr. Kay Khine Soe
Demonstrator
Department of Pharmacology
University of Medicine, Magway
30.1.2018 (Tuesday)

http://www.mahidol.ac.th
Outlines

• Mahidol University
• Scholarship Application
• Department of Pharmacology, Faculty of medicine Siriraj Hospital
• Courses and requirements for MSc (Pharmacology)
• Library
• Soft Skills
Mahidol University
**Mahidol University**

- Webometrics Ranking of World Universities → No. 1 in Thailand, No. 4 in South East Asia, No. 548 in the World
  (http://webometrics.info/en/asia/Thailand)
- QS World University Ranking – 283 in 2017, 334 in 2018
- QS World University Rankings by subject (Medicine) – 101-150 in 2018
- Asian University Ranking – 58 in 2018

**History**

- 1888 → Thailand’s **first** medical school (Sriraj hospital) by **H.M. King Chulalongkorn**
- 1943 → University of Medical Sciences
- 1969 → Mahidol University by **H.M. King Bhumibol Adulyadej**, after his Royal Father, **H.R.H Prince Mahidol of Songkla**, who is widely known as the '**Father of Modern Medicine and Public Health in Thailand**'.
- Siriraj hospital: The **largest** teaching medical center in Thailand
Mahidol University

Siriraj

- The oldest, opened in 1888
- Known as Bangkok Noi Campus
- Located on the west bank of Chao Phraya River
- 28 acres (12 hectares)
- 3 Faculties
  - Faculty of medicine, Siriraj hospital
  - Faculty of Nursing
  - Faculty of Medical Technology

Salaya

- Opened in 1982
- 520 acres (210 hectares)
- Nakhon Pathom Province
- 10 Faculties
- 8 Institute
- 5 College
- 3 Centers

Phayathai

- 78 acres (32 hectares)
- Near the Victory Monument in central Bangkok
- 6 Faculties
- 1 center
- 1 college

http://www.mahidol.ac.th, http://www.si.mahidol.ac.th
17 Faculties
Dentistry/ Engineering/ Environment and Resource Studies/ Graduate Studies/ Information and Communication Technology/ Liberal Arts/ Medical Technology/ Medicine[2]/ Nursing/ Pharmacy/ Physical Therapy/ Public Health/ Science/ Social Sciences and Humanities/ Tropical Medicine/ Veterinary Science

6 Colleges
Management/ Music/ Religious Studies/ Sports Science and Technology/ International College/ Ratchasuda College (for disable)

8 Institutes
Health Development/ Innovative Learning/ Human Rights and Peace Studies/ Molecular Biosciences/ Nutrition/ Population and Social Research/ Child and Family Development/ Languages and Cultures of Asia

http://www.mahidol.ac.th
Number Of Programs, Students and Academic Staff

- Certificate: 6
- Certificate of Proficiency: 142
- Master Degree: 185
- Total: 648
- Higher Graduate/Graduate Diploma: 77
- Fellowship Program: 69
- Doctoral Degree: 83
- Bachelor Degree: 86

Remark: 226 international degree programs
Source: Division of Education Administration, as of May 2017

http://www.mahidol.ac.th
Number Of Programs, Students and Academic Staff

Graduate Diploma
- 82

Bachelor Degree
- 20,644

Master Degree
- 6,590
  - Higher Graduate Diploma
  - 280
  - Doctoral Degree
  - 2,164
  - Certificate
  - 706

Student Body Total: 30,466

Remark: 994 of the above are international students (postgraduate 663 & undergraduate 331).
Source: Division of Education Administration, as of September 2016

http://www.mahidol.ac.th
Number Of Programs, Students and Academic Staff

Full Professor
161

Academic Staff
Total: 3,491

Remark: 89% with Doctoral or equivalent degrees
Source: Division of Human Resource, as of October 2016

http://www.mahidol.ac.th
Scholarship application
The Process of Scholarship Application

- 2015 January  - Apply the Siriraj (Mahidol University) scholarship to Ministry of health and sports, Myanmar after the announcement of it
- 2015 February  - Written exam of both the applied subject & English
- 2015 March  - Viva at Nay Pyi Taw
- 2015 June  - Interview by Mahidol University at Chatrium hotel, Yangon
- 2015 June  - IELTS exam
- 2015 July  - Acceptance letter
- 2015 Sep 7  - Arrived Bangkok
In order to expand academic collaboration between Thailand and its neighboring countries, the Faculty of Medicine Siriraj Hospital has established “The Graduate Scholarship Program for International Students from Neighboring Countries.” Starting from the year 2009, this scholarship program is intended to provide education at the graduate level to distant students, in particular those from Southeast or East Asia to pursue their studies at the M.Sc. and Ph.D. levels. Each scholarship covers full tuition fees and a monthly bursary towards living expenses as per Thai standards. The full-time master program funding covers a period of four semesters (24 months), and the full-time doctoral program funding covers a period of six semesters (36 months). This program concerns only international programs at the graduate levels as following:

Benefits Include
1. Course registration fees
2. Stipend as following:

<table>
<thead>
<tr>
<th>Level</th>
<th>Stipend (Baht/month)</th>
<th>Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.Sc.</td>
<td>6,000</td>
<td>24</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>7,000</td>
<td>36</td>
</tr>
</tbody>
</table>

International Ph.D. Programs
- Medical Anatomy
- Immunology
- Medical Biochemistry and Molecular Biology
- Medical Microbiology
- Medical Physiology
- Pharmacology

International M.Sc. Programs
- Prosthetics and Orthotics
- Immunology
- Medical Biochemistry and Molecular Biology
- Medical Microbiology
- Medical Physiology
- Pharmacology

For admission requirement for each program, please visit our website via www.srirajgrad.com/Graduate-Curriculum
Qualifications for Applicant
1. Applicant must be selected from government institute/university
2. Received a minimum cumulative GPAX from previous institute/university as following:

<table>
<thead>
<tr>
<th>Doctoral Program</th>
<th>Master's Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>For applicant with Master's Degree or Bachelor's Degree, must receive a minimum cumulative GPAX of at least 3.50</td>
<td>Applicant must have received a minimum cumulative GPAX of at least 3.25</td>
</tr>
</tbody>
</table>

3. Applicant must have English proficiency test's score as following:

<table>
<thead>
<tr>
<th>Doctoral Program</th>
<th>Master's Program</th>
</tr>
</thead>
</table>
| TOEFL
  - TOEFL Paper Based > 500 or
  - TOEFL Computer Based > 173 or
  - TOEFL Internet Based > 61 or
  - TOEFL-ITP > 500 which Faculty of Graduate Studies, Mahidol University approved
  - IELTS > 5.0 | TOEFL
  - TOEFL Paper Based > 480 or
  - TOEFL Computer Based > 157 or
  - TOEFL Internet Based > 54 or
  - IELTS > 4.5 or
  - MU-Test (Mahidol University Test) > 45 |
Scholarship Application Form for
The 2015 Graduate Scholarship Program for International Students from
Neighboring Countries for designated partner institutions overseas from
University of Yangon and University of Mandalay

Application Checklist
☐ Application Form (FORM A) ☐ Background and Proposed field of study (FORM B)
☐ Two of Recommendation Form (FORM C) ☐ Transcript
☐ Certificate Employee (from institute/university where is your affiliation)
☐ Copy of English Proficiency Test Score ☐ Copy of Passport
☐ Curriculum Vitae ☐ Submission Letter from University
☐ Letter of Motivation (Make as attachments, not exceed than 1 page with A4 size)
☐ Others.................................................................

I wish to apply a scholarship for:
Level ☐ Doctoral Program
☐ Master’s Program

Program Name
### BACKGROUND AND PROPOSED FIELD OF STUDY

1. **Name of Applicant in Roman block capitals**

   (Family name)   (Firstname)   (Middle name)

2. **Full name in native language:**

   

3. **Proposed study program**

   3.1. Field of your specialization studied *in the past* (Be as detailed and specific as possible.)

   3.2. Field of your proposed study in our faculty

   3.3. Future plan after Graduation
# RECOMMENDATION FORM

Application for academic year_______ Semester __________

Name and title of Referee: Title: ..................................................
First name: ......................... Middle name: ......................
Family name: ..............................

<table>
<thead>
<tr>
<th>Position:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution/Company:</td>
</tr>
<tr>
<td>Postal Address and URL:</td>
</tr>
<tr>
<td>Phone Number:</td>
</tr>
<tr>
<td>Fax Number:</td>
</tr>
<tr>
<td>email-address:</td>
</tr>
</tbody>
</table>
MAHIDOL UNIVERSITY  
Since 1888  
Announcement  
Faculty of Graduate Studies, Mahidol University  
Title: The name of the student who has been accepted into the Master of Science Program in Pharmacology (International Program), Faculty of Medicine Siriraj Hospital, Semester 1, Academic Year 2015.

The Faculty of Graduate Studies, Mahidol University wishes to announce the name of the student who has been accepted into the Master of Science Program in Pharmacology (International Program), Faculty of Medicine Siriraj Hospital, Semester 1, Academic Year 2015. The name is:

<table>
<thead>
<tr>
<th>Student ID number</th>
<th>Name – Surname</th>
<th>Country</th>
<th>Sources of Financial Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>5838373 SIPM/M</td>
<td>Ms. Kay Khaing Soe *</td>
<td>Myanmar</td>
<td>Partial Support by M.Sc. Program in Pharmacology, Faculty of Medicine Siriraj Hospital</td>
</tr>
</tbody>
</table>
Program director: Assoc. Prof. Uraiwan Panich

Academic advisor: Assoc. Prof. Uraiwan Panich

Academic schedule: Starting from August 10, 2015

Study Plan: Plan A(2) (2 Years)

Tuition Fees:
1. Education Services Fee:
   • First semester: 4,000.-baht/semester
   • Second semester: 3,300.-baht/semester
2. Student Activities Fee: 250.-baht/semester
3. Graduate Studies Fee: 750.-baht/semester
4. Internet Fee: 300.-baht/semester
5. Health Insurance: 1,300.-baht/year
6. Graduate Tuition: 1,800.-baht/credit (Partial Support Rate)
7. Thesis Registration (12 Credits): 18,000.-baht/thesis
8. Research Supplies Fee: 0.-baht (Fully Support)
## Tuition Fee for

**Master of Science Program in Pharmacology (International Program)**

**Faculty of Medicine, Siriraj Hospital**

- **Academic Year 2012 and onwards**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>1. Education Services Fee. (Students who entered the graduate programs prior to the academic year 2014)</td>
<td></td>
</tr>
<tr>
<td>(Tuition fee for maintaining student status)</td>
<td></td>
</tr>
<tr>
<td>1.1 First Semester.</td>
<td>5,050 Baht</td>
</tr>
<tr>
<td>1.2 Second Semester.</td>
<td>4,350 Baht</td>
</tr>
<tr>
<td>2. Education Services Fee. (Students who entered the graduate programs in the academic year 2014 and onwards)</td>
<td></td>
</tr>
<tr>
<td>(Tuition fee for maintaining student status)</td>
<td></td>
</tr>
<tr>
<td>2.1 First Semester.</td>
<td>5,300 Baht</td>
</tr>
<tr>
<td>2.2 Second Semester.</td>
<td>4,600 Baht</td>
</tr>
<tr>
<td>3. Health Insurance (Additional Fee for Non - Thai Students)</td>
<td>1,300 Baht/year</td>
</tr>
<tr>
<td>Item</td>
<td>Cost</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>4. Graduate Tuition Fee</td>
<td>9,000 Baht/Credit</td>
</tr>
<tr>
<td>For students who have not received a scholarship or have received a scholarship that only covers part of the tuition fee. The Director of program and the Faculty of Graduate Studies may give these students partial support or waive the graduate tuition fee. The amount of this support cannot be less than 900 baht/credit.</td>
<td></td>
</tr>
<tr>
<td>5. Thesis Registration Fee (pay in the first semester of registration for the thesis)</td>
<td>8,400 Baht/Thesis</td>
</tr>
<tr>
<td>6. Research Supplies Fee (pay in the first semester of the thesis registration)</td>
<td>150,000 Baht</td>
</tr>
<tr>
<td>For students who have not received a scholarship or have received a scholarship that only covers part of the tuition fee. The Director of the program and the Faculty of Graduate Studies may waive or exempt the research supplies fee.</td>
<td></td>
</tr>
</tbody>
</table>
Department of Pharmacology
Faculty of Medicine Siriraj Hospital
Today, Siriraj hospital is Thailand’s largest tertiary and quaternary-care medical center with > 2,800,000 outpatient visits and 80,000 inpatient admission each year. The Faculty of Medicine Siriraj Hospital consists of 25 departments (9 preclinical and 16 clinical departments).
Progress report (every semester) for Siriraj Scholarship
Organization Structure

Department of Pharmacology

Office Administration
- Administration Unit
- Material and Supply Unit
- Education Unit
- Services Unit
- Human Resource Unit
- Financial Unit
- Academic and Research Unit
- Services and Support Unit

Division of Biomedical Pharmacology
- Molecular Pharmacology
- Inflammation and Herbal Pharmacology
- Redox Pharmacology
- Immunopharmacology
- Pharmacology Animal Laboratory
- Systems Pharmacology

Division of Clinical Pharmacology
- Clinical Pharmacology
PhD & Master Students

Ms. Phatthamon Lapanuwat
Ph.D. Student
mim-mimu@hotmail.com
0 2419 5217

Ms. Jinapath Lohakul
Ph.D. Student
jinapath.loh@student.mahidol.ac.th
0 2419 5217

Ms. Amiroh Waesamaee
M.Sc. Student
amie.abd.wrb@gmail.com
0 2419 5217

Ms. Chonvara Chalermpuninanant
M.Sc. Student
chonvara.cha@mahidol.ac.th
0 2419 5217

Ms. Kamoiratana Kongtaphan
Ph.D. Student
kaewwi@gmail.com
0 2419 5217

Mr. Phyo Kyaw Lynn
Ph.D. Student
phyokyawlyn@gmail.com
0 2419 5217

Ms. NILAR NILAR
Ph.D. Student
yuly6886@gmail.com
0 2419 5217

Ms. Orawan Suppramote
Ph.D. Student
nr_new@hotmail.com
0 2419 5217

Ms. Nut Pipatpanyanugoon
Ph.D. Student
nut.pipatpanyanugoon@gmail.com
0 2419 5217

Ms. Kay Khine Soe
M.Sc. Student
kksoe82@gmail.com
0 2419 5217

Ms. Pawarat Chancharoen
M.Sc. Student
po_pewan@hotmail.com
0 2419 5217
Research track

1. Clinical pharmacology
2. Pharmacoepidemiology & Pharmacoeconomics
3. Herbal pharmacology
4. Inflammation pharmacology
5. Systems pharmacology
6. Oncopharmacology
7. Redox and antioxidant pharmacology
8. Immunopharmacology: Cancer
9. Immunopharmacology: Allergy
10. Cardiovascular pharmacology: In Vivo
Courses and requirements for MSc (Pharmacology)
# Academic Schedule of the Academic Year 2015

<table>
<thead>
<tr>
<th>Semester</th>
<th>Starting Date</th>
<th>Ending Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester 2015</td>
<td>10 August 2015</td>
<td>4 December 2015</td>
</tr>
<tr>
<td>Second semester 2015</td>
<td>5 January 2016</td>
<td>29 April 2016</td>
</tr>
<tr>
<td>Summer 2015</td>
<td>23 May 2016</td>
<td>15 July 2016</td>
</tr>
</tbody>
</table>

# Academic Schedule of the Academic Year 2016

<table>
<thead>
<tr>
<th>Semester</th>
<th>Starting Date</th>
<th>Ending Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester 2016</td>
<td>8 August 2016</td>
<td>2 December 2016</td>
</tr>
<tr>
<td>Second semester 2016</td>
<td>9 January 2017</td>
<td>4 May 2017</td>
</tr>
<tr>
<td>Summer 2016</td>
<td>22 May 2017</td>
<td>14 July 2017</td>
</tr>
</tbody>
</table>
Master of Science Program in Pharmacology (International Program)
Faculty of Medicine, Siriraj Hospital
Department of Pharmacology

<table>
<thead>
<tr>
<th>Curriculum Structure</th>
<th>credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Course</td>
<td>20</td>
</tr>
<tr>
<td>Elective Course</td>
<td>4</td>
</tr>
<tr>
<td>Thesis</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thesis</th>
<th>credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIPM 698 Thesis</td>
<td>12(0-36-0)</td>
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</tbody>
</table>
# Master of Science Program in Pharmacology (International Program)

**Faculty of Medicine, Siriraj Hospital**

**Department of Pharmacology**

## Required Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRID 603 Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td><strong>SCID 500 Cell and Molecular Biology</strong></td>
<td>3</td>
</tr>
<tr>
<td>SIPM 502 Seminar in Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>SIPM 503 General Medical Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td><strong>SIPM 504 Systemic Medical Pharmacology</strong></td>
<td>4</td>
</tr>
<tr>
<td>SIPM 600 Advanced Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>SIPM 602 Experiment Methods in Pharmacology</td>
<td>3</td>
</tr>
</tbody>
</table>

## Elective Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIBC 504 Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>SIBC 512 Biochemistry Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>SIIM 612 Diagnostic Immunology</td>
<td>3</td>
</tr>
<tr>
<td>SIMI 611 Molecular Techniques in Medical Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>SIMI 614 Vaccine Development and Clinical Trials</td>
<td>2</td>
</tr>
</tbody>
</table>

- Summer course (June & July)
- Second semester courses
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Group</th>
<th>Class Min</th>
<th>Class Max</th>
<th>Day and time of Study</th>
<th>Venue</th>
<th>Course Director</th>
<th>Lang.</th>
<th>Course Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>RACE611</td>
<td>MEDICINE</td>
<td>01</td>
<td>2</td>
<td>2</td>
<td>MON 09.00 A.M. - 12.00 P.M.</td>
<td>Medical Learning Resource Center and Ramathibodi School of Nursing Building</td>
<td>Assoc.Prof.Dr. ATIPORN INGSATHIT</td>
<td>EN</td>
<td></td>
</tr>
<tr>
<td>RACE612</td>
<td>STUDY DESIGNS AND MEASUREMENTS</td>
<td>01</td>
<td>2</td>
<td>2</td>
<td>MON 09.00 A.M. - 12.00 P.M.</td>
<td>Medical Learning Resource Center and Ramathibodi School of Nursing Building</td>
<td>Assoc.Prof.Dr. ATIPORN INGSATHIT</td>
<td>EN</td>
<td></td>
</tr>
<tr>
<td>RACE613</td>
<td>MEDICAL INFORMATICS AND DATABASE MANAGEMENT</td>
<td>01</td>
<td>2</td>
<td>2</td>
<td>TUE 09.00 A.M. - 12.00 P.M.</td>
<td>Medical Learning Resource Center and Ramathibodi School of Nursing Building</td>
<td>Asst.Prof.Dr. CHUSAK OKASEHAROEN</td>
<td>EN</td>
<td></td>
</tr>
<tr>
<td>RACE614</td>
<td>INTRODUCTION TO MEDICAL STATISTICS</td>
<td>01</td>
<td>2</td>
<td>2</td>
<td>TUE 09.00 A.M. - 12.00 P.M.</td>
<td>Medical Learning Resource Center and Ramathibodi School of Nursing Building</td>
<td>Asst.Prof.DR. SASIVIMOL RATTANASIRI</td>
<td>EN</td>
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</table>

**SEMESTER 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Group</th>
<th>Class Min</th>
<th>Class Max</th>
<th>Day and time of Study</th>
<th>Venue</th>
<th>Course Director</th>
<th>Lang.</th>
<th>Course Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>RACE662</td>
<td>RESEARCH PROTOCOL DESIGN</td>
<td>01</td>
<td>2</td>
<td>2</td>
<td>WED 08.00 A.M. - 12.00 P.M.</td>
<td>Medical Learning Resource Center and Ramathibodi School of Nursing Building</td>
<td>Assoc.Prof.Dr. PATARAWAN WORATANARAT</td>
<td>EN</td>
<td>Load</td>
</tr>
<tr>
<td>RACE663</td>
<td>CLINICAL ECONOMICS</td>
<td>01</td>
<td>2</td>
<td>2</td>
<td>TUE 09.00 A.M. - 12.00 P.M.</td>
<td>Medical Learning Resource Center and Ramathibodi School of Nursing Building</td>
<td>Lect. ORALUCK PATTANAPRATEEP</td>
<td>EN</td>
<td>Load</td>
</tr>
<tr>
<td>RACE665</td>
<td>SOCIAL SCIENCE IN CLINICAL PRACTICE AND RESEARCH</td>
<td>01</td>
<td>2</td>
<td>2</td>
<td>MON 09.00 A.M. - 12.00 P.M.</td>
<td>Medical Learning Resource Center and Ramathibodi School of Nursing Building</td>
<td>Assoc.Prof.Dr. KAMOLNETR OKANURAK</td>
<td>EN</td>
<td>Load</td>
</tr>
<tr>
<td>RACE666</td>
<td>ADVANCED ANALYSIS IN MEDICAL RESEARCH</td>
<td>01</td>
<td>2</td>
<td>2</td>
<td>TUE 09.00 A.M. - 12.00 P.M.</td>
<td>Medical Learning Resource Center and Ramathibodi School of Nursing Building</td>
<td>Assoc.Prof.Dr. AMMARIN THAKKINSTIAN</td>
<td>EN</td>
<td>Load</td>
</tr>
</tbody>
</table>
Clinical Epidemiology Department, Ramathibodi Hospital

RACE 607 Clinical Economics course

- Overview of Health Systems and Clinical Economics
- Equity in Health Care
- Research methodology in economic evaluation
  - Economic evaluation method
  - CEA alongside clinical trials
  - Dynamic transmission modeling
- Cost and outcome measurement
- Modeling method
  - Decision tree analysis
  - Sensitivity analysis
  - Markov model
  - Monte Carlo simulation
- Budget impact analysis and Policy making in Thailand
- Demonstrate Treeage® Pro
- Presentation: Critical appraisal of Economic article
New courses started from 2017 Academic year

### MASTER OF SCIENCE PROGRAM IN PHARMACOLOGY (INTERNATIONAL PROGRAM)

<table>
<thead>
<tr>
<th>Level</th>
<th>Master's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>FACULTY OF MEDICINE SIRIRAJ HOSPITAL</td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.si.mahidol.ac.th">http://www.si.mahidol.ac.th</a></td>
</tr>
</tbody>
</table>

#### Course Requirements

<table>
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<tr>
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**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIID501</td>
<td>MOLECULAR AND CELLULAR BASIS OF BIOMEDICINE</td>
<td>3</td>
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</tbody>
</table>

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIPM502</td>
<td>SEMINAR IN PHARMACOLOGY</td>
<td>2</td>
</tr>
<tr>
<td>SIPM506</td>
<td>MEDICAL PHARMACOLOGY I</td>
<td>3</td>
</tr>
<tr>
<td>SIPM507</td>
<td>MEDICAL PHARMACOLOGY II</td>
<td>3</td>
</tr>
<tr>
<td>SIPM605</td>
<td>RESEARCH METHODOLOGY IN PHARMACOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>SIPM606</td>
<td>CURRENT TOPICS IN PHARMACOLOGY</td>
<td>3</td>
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</tbody>
</table>

**SYSTEMS PHARMACOLOGY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIPM502</td>
<td>SEMINAR IN PHARMACOLOGY</td>
<td>2</td>
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<tr>
<td>SIPM508</td>
<td>PRINCIPLES IN SYSTEMS PHARMACOLOGY</td>
<td>3</td>
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<tr>
<td>SIPM509</td>
<td>QUANTITATIVE TECHNIQUES IN SYSTEMS PHARMACOLOGY</td>
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</tr>
<tr>
<td>SIPM605</td>
<td>RESEARCH METHODOLOGY IN PHARMACOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>SIPM606</td>
<td>CURRENT TOPICS IN PHARMACOLOGY</td>
<td>3</td>
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**Elective Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
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<tbody>
<tr>
<td>EGBE518</td>
<td>ENGINEERING MATHEMATICS FOR RESEARCH</td>
<td>3</td>
</tr>
<tr>
<td>EGBE551</td>
<td>COMPUTATIONAL METHODS FOR BIOMEDICAL ENGINEERING</td>
<td>3</td>
</tr>
<tr>
<td>EGBE616</td>
<td>OPTIMIZATION METHODS</td>
<td>3</td>
</tr>
<tr>
<td>EGBE623</td>
<td>PATTERN RECOGNITION</td>
<td>3</td>
</tr>
<tr>
<td>EGBE631</td>
<td>ADVANCED DRUG DELIVERY</td>
<td>3</td>
</tr>
<tr>
<td>ITCN503</td>
<td>DESIGN AND ANALYSIS OF ALGORITHMS</td>
<td>3</td>
</tr>
<tr>
<td>ITCN528</td>
<td>DATA MINING AND KNOWLEDGE DISCOVERY</td>
<td>3</td>
</tr>
<tr>
<td>ITCN554</td>
<td>PARALLEL COMPUTATION</td>
<td>3</td>
</tr>
<tr>
<td>SIBC604</td>
<td>STATISTICS IN MEDICAL GENETICS</td>
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<tr>
<td>SIBM618</td>
<td>MOLECULAR BIOLOGY TECHNIQUES</td>
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<tr>
<td>SIBM619</td>
<td>MOLECULAR TECHNIQUES IN MEDICAL MICROBIOLOGY</td>
<td>3</td>
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<td>SIPM510</td>
<td>AUGMENTED COURSE IN CANCER RESEARCH</td>
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**Thesis**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>SIPM698</td>
<td>THESIS</td>
<td>12</td>
</tr>
</tbody>
</table>
**Course Topics in Experimental Pharmacology**

- Cell lines, stem cells and cell culture technique
- In vivo experiment
- TLC + HPLC
- Assays for redox research: spectrophotometry and applications
- Enzyme immunoassay, Platelet Assay, Western blot
- Bioanalysis for samples by LCMS technique and application for BE
- DNA extraction, restriction analysis, molecular cloning, Agarose electrophoresis
- RNA: rtPCR, microarray techniques, Sequencing techniques: exome seq, RNA seq
- Antibody-based proteomics
- GC & LC-MS
- Quantitative imaging techniques: immunofluorescence, immunochemistry
- Assays for cancer research: cell death, cytotoxic assays, tumorigenesis
- Perturbation techniques: gene target, genetic modification, CRISPR
Research centers & Labs

(Biomedical Pharmacology)
Research centers & Labs

Protein analysis room

Chromatography room

Sample preparation room

DNA and RNA analysis room
Research centers & Labs

(Equipments)

High Performance Liquid Chromatography with Fraction Collector

TLC applicator and automatic developing chamber

Scanner and Digital CCD Camera
Assessment for SIPM502 Seminar in Pharmacology

For presenter student

<table>
<thead>
<tr>
<th>No</th>
<th>Quality aspects</th>
<th>Earning Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Demonstrate understanding of this article (5 points)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Demonstrate overall appreciation of the field (5 points)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Clarity (5 points)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Organization (5 points)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Critical thinking (10 points)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Answering skills (10 points)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Basic science knowledge (5 points)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Application (5 points)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Personality &amp; attitude (5 points)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>English skill (written &amp; speaking) (5 points)</td>
<td></td>
</tr>
</tbody>
</table>
Assessment for SIPM502 Seminar in Pharmacology

Criteria for first year student - asking questions

<table>
<thead>
<tr>
<th>No</th>
<th>Quality aspects</th>
<th>Earning Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relevance (5 points)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Creativity (5 points)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Preparedness (5 points)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Participation (5 points)</td>
<td></td>
</tr>
</tbody>
</table>

- Every Wednesday from 9:00-10:00 am
- First year Master student has to register this course. (Presentation 3 times & must ask questions)
- All PhD & MSc students have to present also. (About 2-3 times/year)
- All teachers, students and Scientists must attend it.
- Serve tea or coffee and cake or bread.
Course evaluation Criteria

Exam (2-4 times)  70%
Presentation       20%
Attendance         10%

Grading System

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score</th>
<th>Achievement</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>≥ 80</td>
<td>Excellent</td>
<td>4.00</td>
</tr>
<tr>
<td>B+</td>
<td>75-79</td>
<td>Very Good</td>
<td>3.50</td>
</tr>
<tr>
<td>B</td>
<td>70-74</td>
<td>Good</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Other letter grades, without credit points are assigned for course works as follows:

S  Satisfactory
U  Unsatisfactory
I  Incomplete
P  In progress
W  Withdrawal

Less than 70, you have to enroll this course again.

http://www.mahidol.ac.th
Lecture evaluation form for student

- Name of the lecturer:
- Date of lecture:
- Type of teaching (please): ☐ lecture ☐ lab ☐ field study ☐ bedside teaching ☐ others (please specify)....... 
- Class:
- Course ID:
- Collage/Faculty:
  - 5 = Excellent
  - 4 = Good
  - 3 = Moderate
  - 2 = Fair
  - 1 = Poor
# Lecture evaluation form for student

<table>
<thead>
<tr>
<th>Topics</th>
<th>Level of satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The lecturer used various techniques (asking students questions,</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>using simple terms, sharing personal experience, etc) for teaching</td>
<td></td>
</tr>
<tr>
<td>to convey message across ...........................................</td>
<td></td>
</tr>
<tr>
<td>2. The lecturer provided suggestion of further teaching materials</td>
<td></td>
</tr>
<tr>
<td>3. The lecturer open chance for students to show opinion ................</td>
<td></td>
</tr>
<tr>
<td>4. The lecturer has appropriate teaching media (clear and easy to see</td>
<td></td>
</tr>
<tr>
<td>slides, etc) .......................</td>
<td></td>
</tr>
<tr>
<td>5. The lecturer was on time ........................................</td>
<td></td>
</tr>
<tr>
<td>6. The lecturer showed good personality ................................</td>
<td></td>
</tr>
<tr>
<td>7. The lecturer was verbally polite ..................................</td>
<td></td>
</tr>
<tr>
<td>8. The lecturer dress appropriately ..................................</td>
<td></td>
</tr>
<tr>
<td>Opinion and suggestion for improving this course</td>
<td></td>
</tr>
<tr>
<td>............................................................................................</td>
<td></td>
</tr>
</tbody>
</table>
Master Degree Program

✓ Plan A (1) – thesis only
✓ Plan A (2) – coursework 24 credits and thesis 12 credits
✓ Publication – 2 ways
  • In a journal or academic printed matter (first or co-author)
  • Presentation at an academic conference

Proposal Defense Schedule
Ms. Kay Khine Soe  
Master’s Student, Department of Pharmacology

“TRENDS AND EXPENDITURE OF ORAL ANTIDIABETIC MEDICATIONS IN PATIENTS WITH DIFFERENT GLOMERULAR FILTRATION RATE (GFR) AT SIRIRAJ HOSPITAL DURING 2010-2015”.

on Tuesday, 25 October 2016, 1.00 – 3.00 pm.
at Department Conference Room, 11th Fl. Sri Savarindira Building

Advisor - Suvimol Niyomnaitham, MD, MSCE, PhD

MD, Faculty of Medicine Siriraj Hospital, Mahidol University
MSCE, University of Pennsylvania School of Medicine
Philadelphia, Pennsylvania, United States
PhD, Pharmacoepidemiology, The University of Queensland, Australia
Steps for thesis

1. Register thesis credit with approval from advisor.
2. Program director (PD) submits the student’s thesis proposal advisor to faculty of graduate studies (FGS).
3. FGS appoints advisor
4. Advisor gives student advice on thesis and arrange proposal defense exam within 2 semesters starting from thesis registration.
5. PD submits the name lists of proposal exam committee and exam date to FGS within 15 working days before exam.
6. FGS appoints the committee and approves the exam date.
7. If the student has passed the proposal exam, PD submits the name lists of Advisory committee and thesis title to FGS.
8. FGS appoints advisory committee and thesis title.
9. Training program or courses for Ethics in Human Research. (CITI program).
10. Present research project to MU-IRB within 90 fays after proposal exam.
11. Progress report once per month to advisor & FGS every semester.
12. Thesis defense
For Ethics (Certificate from CITI Program)
Siriraj Graduate Research Forum 2017
Short oral presentation
(Clinical and social science research)
26 May 2017
Siriraj Graduate Research Forum 2017
Long oral presentation
(29 May 2017)
Winner 1st prize
Thesis Defense

Thesis Defense Schedule
Ms. Kay Khine Soe  5838373 SIPM/M
Master's Student, Department of Pharmacology

"TRENDS AND EXPENDITURE OF ANTIDIABETIC MEDICATIONS PRESCRIPTIONS IN PATIENTS WITH DIFFERENT GLOMERULAR FILTRATION RATES IN SIRIRAJ HOSPITAL DURING 2010-2016"

On Thursday, 3 August 2017, 13.00 - 16.00
at Department Conference Room, 11th Fl.Sri Savarindira Building
• The computer-based Mahidol University Library and information Network links the central library and 10 branch libraries of the Mahidol University Library and Information Center.

• All staff and students can gain access to all library facilities by showing their Mahidol identity card.

• Off-campus access
• Opens daily except public holidays
• Monday-Friday 8:00 am-10:00 pm
• Sat, Sun 8:30 am-4:30 pm
• Endnote training
• Turnitin
• How to use library facilities
• Room for discussion
Soft Skill

- The standard professional and personal skills or soft skills required for graduate students in Mahidol University are:
  - Language and Communication Skills
  - Leadership and Management Skills
  - Research Skills
  - Information Technology Skills

- Students will get a certificate for every activity attended.
- Every candidate student must pass at least 1 activity in every required skills
- Graduate students with student ID 59xxxxxx and later must pass the soft skills to qualify for graduation.
Language & Communication Skills

22.1.2017 Bangkajao Cultural trip
Language & Communication Skills
Research Skills

Information Technology Skill
Language & Communication Skills