

**SECTION FOR
CLINICAL EPIDEMIOLOGY AND
BIostatISTICS**

Faculty of Medicine
Ramathibodi Hospital
Mahidol University
Bangkok, Thailand



Doctor of Philosophy Program in

**CLINICAL
EPIDEMIOLOGY**

Master of Science Program in

**MEDICAL
EPIDEMIOLOGY**

Who we are – our history

Mahidol University's history can be traced back to 1888. Over more than 120 years it has progressed to be ranked by several leading international organizations as Thailand's top rank university. It is a public research university. With its slogan, 'Wisdom of the Land' it has evolved to be a top ranked global university, with a strong globalization drive to lead change to a knowledge based society and become Thailand's leader in international higher education. Mahidol University is famous for its Faculty of Medicine which is fully equipped with modern medical technology, and has two medical schools which are Ramathibodi Hospital and Siriraj Hospital. Of these, Ramathibodi is more recent, and is in the process of going multi-centre with the development of an additional medical campus. Ramathibodi has over 1,000 beds and provides health care to over 5,000 out patients a day. There are over 2,000 students at Ramathibodi, and over 25% of these are postgraduate. Within Ramathibodi Hospital the Section of Clinical Epidemiology and Biostatistics is now producing its third generation of clinical and medical epidemiologists. Would you like to share our success and become one of them?

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| Our Mission | To produce world class researchers satisfying international standard requirements in clinical and medical epidemiology. |
| Our Philosophy | To integrate clinical epidemiology, biostatistics, clinical economics, health social science, and ethics to improve patients' care and treatment. |
| Our Objectives | <ul style="list-style-type: none">- To provide good instruction in clinical and medical epidemiology.- To effectively integrate evidence-based medicine in the processes of patient care.- To produce good clinical researches using clinical and medical epidemiology using high ethical standards. |
| Our Programs | <ul style="list-style-type: none">- Ph.D. in Clinical Epidemiology by coursework and research or by coursework only- M.Sc. in Medical Epidemiology by coursework and research- Short courses |
| International | <ul style="list-style-type: none">- English – language of medicine and science- International approach – high student responsibility- International publication of manuscripts |

Structure of Curriculum

Program

Ph.D. in Clinical Epidemiology

- Research only (Plan I) ¹
- Research with Coursework (Plan II)

M.Sc. in Medical Epidemiology - Research with Coursework

	Required course	Elective course	Dissertation	Total credits
Ph.D. - Research only (Plan I)	0	0	48	48
Ph.D. - Research with Coursework (Plan II)	20	4	48	72
M.Sc. in Medical Epidemiology - Research with Coursework	20	4	12	36

¹ To qualify for the research only Ph.D., track applicants must have a suitable master's degree which has covered topics equivalent to those on the coursework – sometimes partial exemption is possible if not all courses have been covered.

A study credit is equivalent to 15 hours in class study

A research credit is equivalent to 30 hours of research work.

Enrollment Criteria

- Bachelor Degree in Medicine, Dentistry, Pharmacy or other related Health Care subject.
- Pass English examination TOEFL minimum 60 iBT or 500 paper based test or IELTS 5.5. (Other university English examinations may be considered on a case by case basis) (English examination pass is not required for native speakers)
- Previous publication or research experience is an advantage for consideration.

Coursework

Course ID	Course Description, Credits
RACE 612	Study Designs & Measurements, 3
RACE 615	Introduction to Medical Statistics, 3
RACE 611	Clinical Epidemiology & Evidence-Based Medicine, 3
RACE 614	Medical Informatics & Database Management, 2
RACE 608	Social Science in Clinical Practice & Research, 2
RACE 616	Advanced Analysis in Medical Research, 3
RACE 617	Randomized Controlled Trial, 2
RACE 603	Research Protocol Designs, 2
RACE 607	Clinical Economics, 2
RACE 618	Systematic Review and Meta-analysis, 2
RACE 699	Dissertation

All coursework must be passed with a minimum of B grade.

Coursework assessment is a mix of assignments and examination.

After completion of coursework and before registering for research all students must take and pass a Qualifying Examination.

To enroll in one of our programs please go to: www.ceb-rama.org or telephone (+66)2-201-2684

Welcome from our Program Director

The Section for Clinical Epidemiology and Biostatistics (CEB), Faculty of Medicine, Mahidol University offers training for MSc in Medical Epidemiology and PhD in Clinical Epidemiology. We aim to produce graduates who wish to have a leadership career as researchers in evidence-based medicine in schools of medicine, hospitals, and government service sections. To support this, we provide extensive course work and training. Students will engage in clinical epidemiology course work tasks which can be applied in clinical practice including diagnosis risk/harm, prognosis, therapy, systematic review, and clinical practice guidelines. Other relevant course work tasks, which include study designs, randomized controlled trials, health social sciences, and economic evaluations, will also be covered. We also place special emphasis on rigorous methods of systematic review and meta-analysis, which will lead students to gather and synthesize evidences according to their research question, or will bring forward a good rationale to conduct a study if those evidences cannot answer their questions.

Our program works and collaborates closely with clinical departments in the Faculty of Medicine, Ramathibodi Hospital. We have methodologists who are experts in various specific areas of research including kidney disease, cardiovascular disease (e.g. heart disease, hypertension), diabetes, orthopedics, pediatrics, neurology, family medicine, emergency medicine, otolaryngology, etcetera. We also have a good research team from our CEB to facilitate, help, and support students when conducting their researches. Our students are encouraged to put in their efforts, by following our program planning, to get their research achievements published internationally. We look forward to working with you to achieve your goals.



**Assist. Prof. Ammarin Thakkinstian, Ph.D.
Program Director**

Welcome to the program which will equip you to be good research doctors able to apply evidence based medicine and publish your work internationally. We have a good team of experienced clinical epidemiologists and biostatisticians to give you the training and hands-on experience you need. I am the secretary of the program and instructor. Our approach is student centred, so you will participate in your own learning and the learning of others. We will work closely with you when you do your research to help you achieve success. We have an excellent track record and our program team has about 50 years of cumulative real experience in research and international publication to pass on to you.



**Assist. Prof. Atiporn Ingsathit,
MD. Ph.D.
Lecturer**



**Assist. Prof. Chusak Okascharoen,
MD. Ph.D.
Lecturer**

Our programme has strong major aspects on evidence-based medicine integration and focuses on advanced medical statistics.

Integration with evidence-based medicine means students can integrate their clinical epidemiology knowledge to clinical practice and clinical teaching. Although, general clinicians can teach evidence-based medicine, but a clinical epidemiologist can teach far better. Our clinical instructors have profound understanding of clinical epidemiology and statistics. Moreover they have several years of teaching experience to medical students and residents.

Focusing on advanced medical statistics is crucial to a successful research career. This doesn't mean replacing statisticians. A clinical epidemiologist with a good statistical background will provide advantages of sensible research design, data management and statistical planning. Our lecturers' quality is guaranteed by many clinical papers published.



Dear prospective students,

I would like to overview our PhD course in Clinical Epidemiology for you. This course is quite enlightening not only for the students but also for me, as an instructor. You will get learning experiences in epidemiology, study designs, measurements, critical appraisals and evidence-based medicine. You will also enjoy hands on experiences in proposal writing, systematic reviews, and academic writing workshops. Even though you need to be enthusiastic, patient, and might have to put in lots of effort, I do hope that our curriculum will provide abundant life-long thinking processes in clinical epidemiology for you as well as producing you equipped as excellent clinical epidemiologists in the near future.



**Assist. Prof. Patarawan Woratanarat,
MD, Ph.D.
Lecturer**

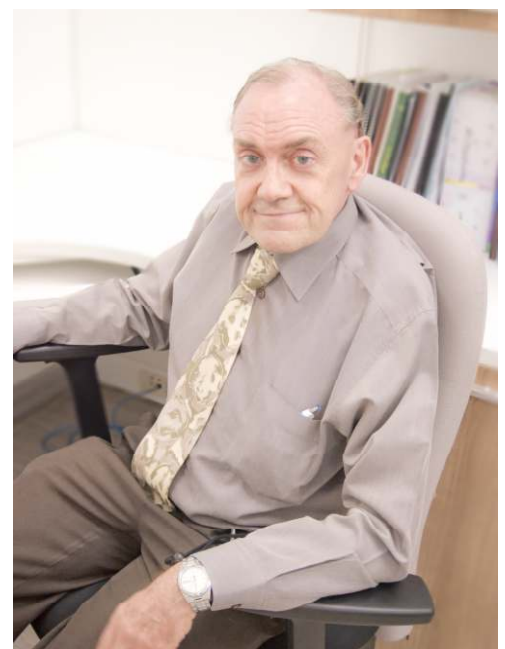


**Sasivimol Rattanasiri, Ph.D.
Lecturer**

Our teaching team has lots of experience in doing research and publication in international journals to share with you. My own field is biostatistics and data management. We will show you how to link concepts to reality. We will give you a solid foundation in the concepts you need. Then, you will work closely with your supervisors on your research, so you learn by doing as well as by the classroom. Our team has a lot of research in progress, and has a strong research methodology and experience to teach you, so that on completion you will be able to carry out research by yourself.

Discovering your talent in clinical epidemiology

Thank you for your interest in our program. While still young, we are building on a firm base of professionalism and quality, so that institutions globally will be able to trust the expertise of our graduates. We want you to become a world class epidemiologist and will make our best efforts to help you achieve your goals. With support and backup all the way, you will be challenged to surpass yourself. It is hard work, but with that comes the satisfaction that not only have you earned your research qualification, you have become a proficient epidemiologist, confident to lead quality research projects in evidence-based medicine anywhere in the world. Congratulations on making the best choice for your research study. We are looking forward to your success.



**Stephen Pinder
Program Manager**



Prof. Chumpon Wilasrusmee, MD.
PhD Student

Difficulty, crazy, brave, billion, beat, blind, break,, are they really words for working as a student in epidemiology. I cannot remember about the decision to study but my inspiration to start and changing after studying always remind me. My inspiration was created mainly from working experience with advisors, staff, classmates, and friends. Successful jobs after course works make me understand more and produce more while any confusing experiences make me stronger. One may need to take a break and wait to fulfill their next inspiration. This course will make active inspiration and improve our epidemiology skills. Look up, exercise your brain, find yourself, and balance your life with positive inspiration for Doctor of Philosophy in Epidemiology. I-myself, we-our selves, and they-themselves whoever work in medicine should have the benefit to improve our work and society for "Best academic work in Thailand".

Studying in clinical epidemiology program provides the good opportunity to me to learn how to conduct the clinical research. During the first year, I have learned the coursework about study designs, data management, and biostatistics. These are valuable and very useful for initiating and conducting my dissertation in the following years.

In my opinion, the learning process will be successful if we have a chance to practice the things that we have learned. Therefore, this program not only gives me the important knowledge about clinical epidemiology, but also the precious experience to perform the good and standard clinical research by myself.



Thanyarat Anothaisintawee, MD.
PhD Student



Pawin Numthavaj, MD.
PhD Student

To our future Clinical Epidemiology students,

When I was a medical student, I always had questions about how we know what treatment was the best. Undoubtedly, I checked my textbooks and found out that not everything is written in the book. I also wondered how we know which textbooks are most accurate. Then I came across the staff here in the Clinical Epidemiology program and they just opened a completely new world for me. I never thought I would know more and more about research, from how we conduct to how we apply knowledge to our patients. Studying and researching in this course taught me much more than what I have read in my entire medical school years. The staff are great and they will help you a lot more than you can think. I hope you enjoy studying here as I do!

Selected Publications by our Ph.D. Students

- **Anothaisintawee T**, Attia J, Nickel JC, Thammakraisorn S, Numthavaj P, McEvoy M, Thakkinstian A. Management of chronic prostatitis/chronic pelvic pain syndrome: a systematic review and network meta-analysis. **JAMA**. 2011 Jan 5;305(1):78-8
- **Numthavaj P**, Thakkinstian A, Dejthevaporn C, Attia J. Corticosteroid and antiviral therapy for Bell's palsy: a network meta-analysis. **BMC Neurol**. 2011;11:1.
- **Arj-Ong S**, Thakkinstian A, McEvoy M, Attia J. A systematic review & meta-analysis of Tumor Necrosis Factor alpha-308 polymorphism and Kawasaki disease. **Pediatr Int**. 2010 Aug;52(4):527-32.
- **Kamanamool N**, McEvoy M, Attia J, Ingsathit A, Ngamjanyaoporn P, Thakkinstian A. Efficacy and adverse events of mycophenolate mofetil versus cyclophosphamide for induction therapy of lupus nephritis: systematic review and meta-analysis. **Medicine (Baltimore)**. 2010 Jul;89(4):227-35.
- **Kongtharvonskul J**, Attia J, Thamakaisorn S, Kijkunasathian C, Woratanarat P, Thakkinstian A. Clinical outcomes of double- vs single-bundle anterior cruciate ligament reconstruction: A systematic review of randomized control trials. **Scand J Med Sci Sports**. 2012 Jan 31.
- **Vejakama P**, Thakkinstian A, Lertrattananon D, Ingsathit A, Ngarmukos C, Attia J. Reno-protective effects of renin-angiotensin system blockade in type 2 diabetic patients: a systematic review and network meta-analysis. **Diabetologia**. 2012 Mar;55(3):566-78.
- **Anothaisintawee T**, Teerawattananon Y, Wiratkapun C, Kasamesup V, Thakkinstian A. Risk prediction models of breast cancer: a systematic review of model performances. **Breast Cancer Res. Treat**. 2012 May;133(1):1-10.
- **Wilasrusmee C**, Sukrat B, McEvoy M, Attia J, Thakkinstian A. Systematic review and meta-analysis of safety of laparoscopic versus open appendectomy for suspected appendicitis in pregnancy. **Br J Surg**. 2012 Nov;99(11):1470-8.
- **Siribumrungwong B**, Noorit P, Wilasrusmee C, Attia J, Thakkinstian A. A systematic review and meta-analysis of randomised controlled trials comparing endovenous ablation and surgical intervention in patients with varicose vein. **Eur J Vasc Endovasc Surg**. 2012 Aug;44(2):214-23.

Come and Join Our Team

Teamwork is what gets the job done. Imagine a large sample multi centre randomized controlled trail. You have many staffs to involve including investigators, Clinicians, Epidemiologist, data manager, collaborators, data collectors and of course an excellent back-up advisory and support team. The principle investigator is the leader of this team effort and that is the position we are going to put you in, after showing you how to do it. You will develop research methodological skill, which requires Clinical Epidemiology and Biostatistics knowledge, and also build up leadership and teamwork skills, as well as completing a worthy research project. We have a team of supervisors and support staffs to keep you on track. You will be in the driving seat and have us as a navigator taking you to achieve your goal. You are not left on your own, we will work closely together as a team. We would like to invite you to be one of our research team. We are looking forward to work with you.

Section for Clinical Epidemiology and Biostatistics

3rd Floor, Research Center Building
Faculty of Medicine Ramathibodi Hospital
Mahidol University

270 Rama VI Road
Ratchathewi
Bangkok 10400
Thailand

Telephone: (+66)2-201-2684
www.ceb-rama.org
facebook.com/ramaclinicalepi

