

Curriculum

Master of Science Program in Integrative Medicine (International Program)

1. Curriculum Structure

Students are required to complete a minimum of 36 credits in accordance with the curriculum requirements, as follows.

Plan A1 (Research Track: Thesis Only)

- Thesis 36 Credits

Plan A2 (Coursework and Thesis)

- Required Courses 12 Credits

- Required Elective Courses 6 Credits

- Elective Courses 4 Credits

- Thesis 14 Credits

Total 36 Credits

2. Study Plan

Plan A1 (Research Track: Thesis Only)

Year 1

First Semester	Credits	Second Semester	Credits
CMI 803 Thesis	6	CMI 803 Thesis	6
Total	6	Total	6

Year 2

First Semester	Credits	Second Semester	Credits
CMI 803 Thesis	12	CMI 803 Thesis	12
Total	12	Total	12

Total program credits: Not fewer than 36 credits.

Plan A2 (Coursework and Thesis)

Year 1

First Semester	Credits	Second Semester	Credits
CMI 601 Integrative Medicine I	3	CMI 605 Special Problems in Integrative Medicine	2
CMI 602 Integrative Medicine II	3	Restricted Elective Courses	6
CMI 603 Research Methodology in Integrative Medicine	3	Elective Courses	2

First Semester	Credits	Second Semester	Credits
CMI 604 Seminar in Integrative Medicine	1	CMI 810 Thesis	3
Elective Courses	2		
Total	12	Total	13

Year 2

First Semester	Credits	Second Semester	Credits
CMI 810 Thesis	6	CMI 810 Thesis	5
Total	6	Total	5

Minimum total credits required for graduation: 36 credits.

3. Course List

1) Required Courses (12 Credits)

Course ID	Course Title	Credits
CMI 601	Integrative Medicine 1	3 (3-0-9)
CMI 602	Integrative Medicine 2	3 (3-0-9)
CMI 603	Research Methodology in Integrative Medicine	3 (2-2-8)
CMI 604	Seminar in Integrative Medicine	1 (0-2-4)
CMI 605	Special Problems in Integrative Medicine	2 (1-2-5)

2) Required Elective Courses (6 Credits)

Course ID	Course Title	Credits
CMI 611	Traditional and Alternative Medicine	3 (3-0-9)
CMI 612	Lifestyle Medicine	3 (3-0-9)
CMI 613	Physical Activities and Exercises	3 (2-2-8)
CMI 614	Nutrition and Herbal Medicine	3 (3-0-9)
CMI 615	Mindfulness Therapy	3 (2-2-8)

3) Elective Courses (4 Credits)

Course ID	Course Title	Credits
CMI 671	Health, Belief and Behavior	2 (2-0-6)
CMI 672	Palliative Care	2 (2-0-6)
CMI 673	Applied Biotechnology in Medicinal Plants	2 (2-0-6)
CMI 674	Constituents of Medicinal Plants	2 (2-0-6)
CMI 675	Health and Wellness	2 (2-0-6)
CMI 676	Counseling and Psychotherapy	2 (1-2-5)
CMI 677	Herbal Medicine and Product Development	2 (1-2-5)
CMI 678	Molecular Medicine in Non-communicable Diseases	2 (2-0-6)
CMI 679	Molecular Medicine in Clinical Research	2 (2-0-6)

CMI 680	Research Protocol Development	2 (1-2-5)
CMI 681	Food as Medicine	2 (2-0-6)
CMI 682	Medical Tourism	2 (2-0-6)
CMI 683	Future-Focused Wellness Business Development	2 (2-0-6)
CMI 684	Animal Advanced Science	2 (2-0-6)
CMI 685	Integrative Medicine on Ophthalmology	2 (2-0-6)
CMB 713	Current Topics in Dermatological Drug Discovery and Development	2 (2-0-6)

4) Thesis

Plan A1 (Research Track: Thesis Only)

Course ID	Course Title	Credits
CMI 803	Thesis	36

Plan A2 (Coursework and Thesis)

Course ID	Course Title	Credits
CMI 810	Thesis	14

4. Course Descriptions

CMI 601 Integrative Medicine 1 3 (3-0-9)

The principle of integrative medicine combines modern sciences to explain the mechanisms and balance of the body, emphasizing effective disease management through the integration of both integrative and modern medicine

CMI 602 Integrative Medicine 2 3 (3-0-9)

Meaning, concept, and principles of integrative medicine, mechanisms of chronic diseases caused by imbalances in various body systems, and the integration of etiology management with disease prevention, care, treatment, are rehabilitation using modern sciences and other alternative knowledge

CMI 603 Research Methodology in Integrative Medicine 3 (2-2-8)

BASIC PRINCIPLE OF RESEARCH, TYPE OF RESEARCH, RESEARCH PROCESS, DATA SEARCHING, RESEARCH QUESTION, HYPOTHESIS, SAMPLES SELECTION, SAMPLE SIZE AND POWER OF TEST, HUMAN AND ANIMAL ETHICS, RESEARCH PLAN, RESEARCH TOOL, CONDUCTING RESEARCH, DATA COLLECTION, DATA AND RESULT DISCUSSION, RESEARCH REPORT, RESEARCH PUBLISHING

CMI 604 Seminar in Integrative Medicine 1 (0-2-4)

Research analysis, interpretation and critical thinking of students. Presentation of research in order to formal presentation of current research by students under supervision of the course committee.

CMI 605 Special Problem in Integrative Medicine 2 (1-2-5)

Ethical or professional problems, special topics, research papers, research strategies, technological research techniques, scientific process and skill, experimental design leading to develop new knowledges based on scientific evidences in Integrative Medicine for further leading toward thesis.

CMI 611 Traditional and Alternative Medicine 3 (3-0-9)

Meaning, principle and philosophy of alternative medicine, identification of folk and Thai traditional medicines, traditional medicine of each country, integrate complementary medicine to conventional medicine, integrate basic scientific knowledge to complementary/alternative medicine, the controlling biochemical mechanisms, and common diseases leading to integrative approach linked with conventional medicine.

CMI 612 Lifestyle Medicine 3 (3-0-9)

The principle and concept of lifestyle medicine, introduce treatment approaches that rely on an individual's lifestyle, including nutrition, exercise, sleep, stress management, reduction of health risks, and social relationships. The focus is on systematic habit modifications for the prevention, care, and treatment of non-communicable diseases, based on relevant academic evidence

CMI 613 Physical Activities and Exercises 3 (2-2-8)

Health promotion with various exercise activities; Sports Medicine and diseases prevention with exercises; Advising physical activities and suitable exercises for chronic illnesses with traditional medicine, Thai traditional medicine, naturopathy, Chinese medicine, Ayurveda including applications for treatment and rehabilitation of those with long term diseases, heart diseases, diabetic patients, hyperlipidemia, hypertensive patients, those with diseases of muscular skeletal, nervous system and exercise for each age group, including nutrition in sports and exercises.

CMI 614 Nutrition and Herbal Medicine 3 (3-0-9)

Principles of nutrition and metabolism, physiology of digestion, biomolecular and nutritional sciences that can be applied to medical science and nutrition, roles of nutrients, metabolic fate of nutrients and the body's utilization, principles of RDI, herbal medicine and food supplements, determination of bioactivities in herbal medicine, special topics in human nutrition or herbal medicine.

CMI 615 Mindfulness Therapy 3 (2-2-8)

Principle, meaning, objectives, methods, steps, starting point of mediation, appearance of recitation and recitation and benefits of meditation with sciences explanation. Application of meditation for daily life, integrate to physical and mental health of our own and others mental health as well as improving their quality of lives.

CMI 671 Health, Belief, and Behavior 2 (2-0-6)

The meaning of health and well-being from social and cultural perspectives, beliefs and value systems related to health, key concepts and theories in health behavior, factors influencing health behavior, health behavior modification, the analysis of health problems by applying behavioral theories to address and solve health issues and developing sustainable health behavior change

CMI 672 Palliative Care 2 (2-0-6)

This course is an integrative and multidisciplinary approach aiming to increase patient wellness and quality of life offered by teams of health care providers and volunteers; Having patients as the center, it is not only limited to end-of-life care, but begins when the patient is worried that they may suffer from a serious illness that is difficult to be treated and extends to cover bereavement of the family members after the patient has died. This course includes training of the art and ethics of truth telling, principles of pain management, choices of alternative and traditional medicines, psychological and spiritual counseling, living will, moral will, and bereavement such as Buddhism, Christianity and Islam.

CMI 673 Applied Biotechnology in Medicinal Plants 2 (2-0-6)

General knowledge of biotechnology, technical terms and principles. Plant quality control using biomolecular techniques, medicinal plant improvement technology, plant tissue culture technique and application of biotechnology technique for secondary metabolite production.

CMI 674 Constituents of Medicinal Plants 2 (2-0-6)

The mechanisms of plant constituents, including terpenoids, alkaloids, and phenolics, in medicine, focusing on the studying of current diseases and those with high prevalence both in Thailand and globally, and the analysis methods of that plant constituents, to develop treatments and potential medical products derived from plants.

CMI 675 Health and Wellness 2 (2-0-6)

Description and importance of good well-being, description, importance, and role of wellness health care services, current wellness care services, application and implementation of medical science and alternative medicine in wellness care services, health science research related to wellness care

CMI 676 Counseling and Psychotherapy 2 (1-2-5)

The principle of counseling and psychotherapy in the context of integrative medicine, studying the theories and techniques used to assist patients in managing emotional, psychological, and behavioral issues, as well as adapting to medical treatments. Students will learn various counseling and therapeutic approaches, including psychological counseling, behavioral therapy, mindful therapy and cognitive-behavioral therapy. The course involves practical training in counseling skills such as active listening, communication, psychological assessment, and building therapeutic relationships to support patients' emotional well-being. It emphasizes the development of effective therapeutic techniques to improve mental health alongside medical care.

CMI 677 Herbal Medicine and Natural products 2 (1-2-5)

Basic knowledge of herbal medicine and its application in daily life, the fundamental principles of Thai Traditional pharmacy, herbal medicines used in the primary health care, herbal medicines in National list of Essential Medicines, traditional household remedies, the use of Chinese herbal medicine, herbs in food and cosmetics in the daily life, common herbal products found in drugstores, the selection of safe herbs and herbal products, and preparations of some herbal products.

CMI 678 Molecular Medicine in Non-communicable Diseases 2 (2-0-6)

Applying molecular medicine techniques to clinical research to predict the progression of the disease early diagnosis of various chronic non-communicable diseases, including high blood pressure, emphysema, high blood cholesterol, abdominal obesity, diabetes, cancer, and cardiovascular disease

CMI 679 Molecular Medicine in Clinical Research 2 (2-0-6)

The use of molecular medicine techniques in clinical research includes amplifying genes in vitro and gene or protein mutations in various locations to predict symptoms and diagnose disease, as well as the use of biomarker detection methods in blood or urine samples to predict various stages of disease and provide early and precise diagnosis in clinical research

CMI 680 Research Protocol Development 2 (1-2-5)

Research protocol development consists of introduction, significance of the study, literature review, references, research questions, hypotheses, research objectives, and research methodology including study design, location of research, ethical issue, population, sample size, sampling of research, instrumentation, data collection, statistical analysis, expected results, research plan, project timeline, budget, and publication.

CMI 681 Food as Medicine 2 (2-0-6)

Nutrition for health promotion and therapy focuses on using food to restore the body, prevent diseases, and manage NCDs through appropriate dietary choices. It also involves developing functional and future foods using advanced technologies such as alternative proteins, biotechnology, and sustainable packaging. Additionally, it explores innovations, marketing strategies, and sustainable consumption trends in the digital era.

CMI 682 Medical Tourism 2 (2-0-6)

Principle and Medical Wellness Tourism Management) Type of Wellness and Medical Tourism Tourism Management for Health and Wellness Promotion Government Policy and Support for Medical and Wellness Tourism Health and Wellness Tourism Management for elderly Standard and Accreditation body of Medical and Wellness Tourism Spa, Traditional Thai Medicine, and Thai Wisdom in Health Care for the Tourism Business Wellness Tourism and Environmental Conservation Local Food and Culinary Tourism for Health Promoting Geographical Indication (GI) Products in Local Communities for Health and Tourism Development Principles of Health Promotion: Adapting Community Lifestyles for Disease Prevention and Longevity Strategies, Marketing, and Promotion for Wellness and Medical Tourism Marketing Communication for Wellness and Medical Tourism Technology and Artificial Intelligence in Wellness and Medical Tourism Businesses.

CMI 683 Future-Focused Wellness Business Development 2 (2-0-6)

Introduction to Wellness Business Development Inside the Mind of Wellness Consumers The Wellness Boom: Hot Sectors to Watch Designing Consumer-Centric Wellness Services Creating High-Impact Wellness Products Wellness Marketing Strategies Personalization in Wellness Services Revenue Models for Wellness Businesses Digital Wellness Technology in the Wellness Industry Insights from Industry Leaders Future-Proof Your Wellness Business Field Visit: Medical Wellness Field Visit: Medical Wellness Field Visit: Wellness Product Manufacturing

CMI 684 Animal Advanced Science

2 (2-0-6)

Oversight of the care and use of animals, general standards and regional regulations, institutional oversight, animal care and use oversight committees, models and alternatives for animal experimentation, occupational health and safety/biosafety, and factors affecting research data.

CMI 685 Integrative Medicine on Ophthalmology

2 (2-0-6)

Anatomy and physiology of the visual system, common abnormalities, pathological changes, mechanisms and etiologies of eye diseases. The contributing factors such as genome, gut microbiota, body composition, mitochondria and their relationships to disease onset. The integrative approaches such as lifestyle medicine, dietary and herbal treatments, exercise, the use of antioxidants and anti-inflammatory substances combined with the modern medical practices to treat ocular diseases. The application of Thai traditional medicine, Chinese medicine, and other relevant traditional medical practices to develop personalized treatments. The context of lifestyle in ocular diseases prevention. Related literature studies, and research questions.

CMB 713 Current Topics in Dermatological Drug Discovery and Development 2 (2-0-6)

Recent research advances in Dermatological Drug Discovery and Development; processes of dermatological drug discovery and development: drug target identification; pre-clinical studies; chemistry manufacturing and control (CMC); clinical drug development (phases I-IV); roles of pharmacokinetics, toxicokinetic and pharmacogenomics; and regulatory requirements.

CMI 803 Thesis

36 Credits

Development of integrative medicine research proposal related to student's thesis; conduct of research in integrative medicine to generate new knowledge or innovation; writing up the thesis; preparation of manuscripts and publication; research ethics; and publishing ethics

CMI 810 Thesis

14 Credits

Development of integrative medicine research proposal related to student's thesis; conduct of research in integrative medicine to generate new knowledge or innovation; writing up the thesis; preparation of manuscripts and publication; research ethics; and publishing ethics