



**Master of Science**  
**in**  
**Dermatology and Dermatosurgery**  
**(International Program)**

# **Faculty of Medicine**

## **Rangsit University**

Master of Science Program in Dermatology and Dermatosurgery  
(International Program)

### **Degree**

Master of Science (Dermatology and Dermatosurgery)  
M.Sc. (Dermatology and Dermatosurgery)

Office in Charge

**Faculty of Medicine, Rangsit University**  
**Institute of Dermatology**

### **Objective**

**To provide basic and higher knowledge in dermatology and dermatolosurgery, up to the international standard. And also to fulfill the need for a better public health service in dermatology and enhance Medical Ethics and good morale.**

Criteria for applicants

- 1) Bachelor Degree in Medicine
- 2) No history of legal matters
- 3) No behavioral problem
- 4) No mental health issue
- 5) Medical registration from Medical Council of the country not less than 1 year
- 6) Have to pass Course Committee interview, personality, attitude and recommendation letter will be considered
- 7) Should pass TOEFL score of 500 or computed based of 173 or internet based not less than 60 or IELTS of 5.5 of all module (result of test not more than 2 years). Except for applicants coming from countries with English as their mother language or Thai nationals who studied in accredited International Universities.

### Duration of the course

**Duration of the course is 2 year. It is composed of 2 semesters per year. Each semester is at least 15 week.**

### The course is conducted in English

**Timing of studies: Monday to Friday from 08.30-16.30**

### Venue:

- 1) Medical Department, Rangsit University, Muang Eak District, Phaholyothin Road, Pathum Thani, Thailand
- 2) Institute of Dermatology, 420/7 Rajavithi Road, Rajathevi, Bangkok, Thailand
- 3) Other Associate Institutes in Thailand and abroad

### Structure of the Curriculum

Participants have to fulfill 40 credits

### Subjects included in the course:

- 1) Curriculum subjects 24 Credits
- 2) Elective subjects 4 Credits
- 3) Thesis 12 Credits
- 4) Additional program (no Credit)  
(English for Graduate Studies)

### Curriculum subjects:

DDS	601	Responsibility and Ethics in Bioclinical Sciences Research	2(2-0-4)
DDS	602	Statistical Methods in Bioclinical Sciences	2(2-0-4)
DDS	603	Dermatology Case Seminar	1(0-2-1)
DDS	604	Dermatology Journal Seminar	1(0-2-1)
DDS	605	Basic Dermatology	1(1-0-2)
DDS	606	Clinical Dermatology I	2(2-0-4)
DDS	607	Laboratory Investigation in Dermatology	1(1-0-2)
DDS	608	Clinical Dermatology II	2(2-0-4)

DDS	609	Dermatosurgery	1(1-0-2)
DDS	610	Laser Surgery	1(1-0-2)
DDS	611	Dermatopathology	2(2-0-4)
DDS	612	Pediatric Dermatology	1(1-0-2)
DDS	613	Dermatosurgery Practice	3(0-6-3)
DDS	614	Aesthetic Dermatology	1(1-0-2)
DDS	615	Laser Surgery Practice	3(0-6-3)

## Elective subjects:

DDS	621	Dermatology Practice	1(0-2-1)
DDS	631	Contact Dermatitis and Occupational Skin Diseases	1(1-0-2)
DDS	641	Photosensitive Skin Diseases)	1(1-0-2)
DDS	651	Infections in Skin Diseases	1(1-0-2)
DDS	661	Autoimmune Skin Diseases	1(1-0-2)
DDS	671	Hair and nail	1(1-0-2)

## Thesis

DDS	699	Thesis	12(0-36-18)
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## Study Program

First Year					
Subject for Study					
1 <sup>st</sup> Semester			2 <sup>nd</sup> Semester		
DDS 601	Responsibility and Ethics in Biochemical Sciences Research	2(2-0-4)	DDS 608	Clinical Dermatology II	2(2-0-4)
DDS 602	Statistical Methods in Biochemical Sciences	2(2-0-4)	DDS 609	Dermatosurgery	1(1-0-2)
DDS 603	Dermatology Case Seminar	1(0-2-1)	DDS 610	Laser Surgery	1(1-0-2)
DDS 604	Dermatology Journal Seminar	1(0-2-1)	DDS 611	Dermatopathology	2(2-0-4)
DDS 605	Basic Dermatology	1(1-0-2)	DDS 612	Pediatric Dermatology	1(1-0-2)
DDS 606	Clinical Dermatology I	2(2-0-4)	DDS 613	Dermatosurgery Practice	3(0-6-3)
DDS 607	Laboratory Investigation in dermatology	1(1-0-2)			
Total 10 Units			Total 10 Units		

Second Year					
Subject for Study					
1 <sup>st</sup> Semester			2 <sup>nd</sup> Semester		
DDS 614	Aesthetic Dermatology	1(1-0-2)	DDS....	Clinical Dermatology III	1(1-0-2)
DDS 615	Laser Surgery Practice	3(0-6-3)	DDS....	Clinical Dermatology IV	1(1-0-2)
DDS 699	Thesis	6(0-18-9)	DDS....	Photosensitive Skin Diseases	1(1-0-2)
			DDS....	Autoimmune Skin Diseases	1(1-0-2)
			DDS 699	Thesis	6(0-18-9)
		Total 10 Units			Total 10 Units

#### Details of the Subjects

#### **ENL 500 English for Graduate Studies**

**3(3-0-6)**

Development of listening and reading skills to conceptualize main points of complex technical and non-technical texts, skills in presenting viewpoints giving arguments and counter arguments both orally and in writing.

#### Curriculum Subjects

#### **DDS 601 Responsibility and Ethics in Bioclinical Sciences Research**

**2(2-0-4)**

Introduction to responsible research, relevant information for initiating research, critical reading and analysis, guidelines for good practices, ethics and regulations in bioclinical sciences, responsible protocol writing, planning and setting up experiment/research, responsible peer review, good data management practice and quality standards, consideration for report and publication, ethical issues in publication; and presentation of research results.

#### **DDS 602 Statistical Methods in Bioclinical Sciences**

**2(2-0-4)**

Principles and applications of biostatistics to bioclinical research; type of variables and data, data presentation and summarization, population and sample, probability distribution, research and statistical hypotheses, estimation and hypothesis testing, parametric and non-parametric statistics, statistical test for reliability and diagnosis, estimation of sample size; and applications of computer software for statistical analysis.

**DDS 603 Dermatology Case Seminar 1(0-2-1)**

Discussion on problems pertaining to patient care, clinical diagnosis, pathological diagnosis, laboratory investigation and treatment of chronic and rare skin diseases.

**DDS 604 Dermatology Journal Seminar 1(0-2-1)**

Formal presentation and discussion of current research topic in dermatological science and clinical dermatology by students, under supervision of the course committee.

**DDS 605 Basic Dermatology 1(1-0-2)**

The development of the skin, epidermis: keratinocyte cell kinetics, epidermal differentiation, epidermal lipids, DNA repair and carcinogenesis; dermo-epidermal junction: anatomy of basement membrane zone, structure and function, pathophysiology of blistering diseases; dermis: collagen, elastic, ground substance, and fibroblast; wound healing; nutrition and the skin; percutaneous absorption and temperature regulation; structure, physiologic responses, and hormonal influences of sebaceous unit; structure and function of apocrine and eccrine sweat glands; bioactivity and function of hair; structure and growth of nails; inflammation and mediators; hormone receptors in the skin; stem cell of the skin.

**DDS 606 Clinical Dermatology I 2(2-0-4)**

Introduction to clinical dermatology; Structure of skin lesions and fundamentals of clinical diagnosis, clinical manifestation of common skin diseases and their pathogenesis, etiologies, prognosis and management; common skin diseases: eczema, papulosquamous eruption, acne, rosacea, urticaria and angioedema, vesiculobullous eruption, drug eruption, adnexal disorder, hair and nail disorders, pigmentary disorders, cutaneous vasculopathy, skin tumor, bacterial infection, viral infection, fungal infection; and emergency dermatoses.

**DDS 607 Laboratory Investigations in Dermatology 1(1-0-2)**

Common laboratory investigation in dermatology; dermoscopy, patch testing, photo testing, cell culture, protein and RNA extraction, protein qualification, mRNA qualification and polymerase chain reaction, immunohistochemical staining, immunofluorescence technique; and drug development in dermatology.

**DDS 608 Clinical Dermatology II 2(2-0-4)**

Structure of skin lesions and fundamentals of clinical diagnosis; clinical manifestation of common skin diseases and their pathogenesis, etiologies, prognosis and management; contact dermatitis, photodermatoses, pediatric dermatology, pregnancy, aging skin disorders, non-infectious inflammatory dermatoses, skin sign in systemic diseases, autoimmune connective tissue diseases, leprosy and microbacterial infection, sexual transmitted diseases, skin sign in HIV patients, oro-genital disorders, dermal connective tissue and subcutaneous tissue disorder; and genodermatoses.

**DDS 609 Dermatosurgery 1(1-0-2)**

Treatment of skin diseases, aging skin, skin tumors and skin cancers by surgery, excision, electrosurgery, cryosurgery, and chemical peel; treatment of varicose vein by sclerotherapy.

**DDS 610 Laser Surgery 1(1-0-2)**

Treatment of skin diseases, aging skin, skin tumors and skin cancers by laser surgery; ablative and non-ablative fractional skin resurfacing laser, vascular specific laser, hair removal laser, pigment specific laser, laser for varicose vein treatment; and non-ablative skin remodeling laser.

**DDS 611 Dermatopathology 2(2-0-4)**

A diagnostic tool at cellular level by examining skin/tissue biopsy via microscope to diagnosed many skin diseases; inflammation, infection, tumor, malignancy and genodermatoses. This includes, special staining and immunohistochemical study which are advanced technique to highlight specific cellular component in diseases and microorganism in the tissue.

**DDS 612 Pediatric Dermatology 1(1-0-2)**

Dermatologic diseases in newborns, infants, and children; obtaining a history and methods of dermatological examination in infants and children which differ from adults; outpatient procedures in pediatric dermatology with appropriate planning and age; appropriate drug prescription for pediatric patients.

**DDS 613 Dermatosurgery Practice 3(0-6-3)**

Operating room-based observation; history taking and physical examination, laboratory investigations, interpretation, diagnosis, treatment and follow-up, simple procedures and high skill-based procedures, management of surgical complications.

**DDS 614 Aesthetic Dermatology 1(1-0-2)**

Anatomy of face, pathophysiology of aging skin, intrinsic and extrinsic factors of aging skin, pigmentation of aging skin. How to approach and correct aging skin; topical anti-aging products, chemical peeling, laser devices, intense pulsed light devices, radiofrequency devices, focused ultrasound devices, filler and botulinum toxin injections; and management of complications.

**DDS 615 Laser Surgery Practice 3(0-6-3)**

Laser room-based observation; history taking and physical examination, symptoms and signs, diagnosis, treatment and follow-up with carbon dioxide laser devices, erbium laser devices, Q-switched laser devices, non-ablative fractional laser devices, ablative fractional laser devices, radiofrequency devices, focused ultrasound devices, filler and botulinum toxin injection; and management of procedural complications.

**Elective Subjects**

**DDS 621 Dermatology Practice 1(0-2-1)**

Outpatient based observation in dermatology training centers; history taking and physical examination, common, complicated and rare dermatological diseases, symptoms and signs, laboratory investigations, interpretation, diagnosis; and treatment and follow-up.

**DDS 631 Contact Dermatitis and Occupational Skin Diseases 1(1-0-2)**

Dermatology diseases in association with contact substances and occupational skin diseases; obtaining a history, physical examination and investigation, diagnosis, pathophysiology of allergic contact dermatitis: cell-mediated (type IV) delayed type hypersensitivity reaction caused by skin contact with an environmental allergen; and treatment and prevention.

**DDS 641 Photosensitive Skin Diseases 1(1-0-2)**

Characteristics of electromagnetic wavelengths in sunlight, effect of ultraviolet radiation to immune system, common and acquired sunlight-induced skin disorders, obtaining a history, physical examination and investigation for diagnosis, pathophysiology of photosensitive skin disorders, treatment and prevention; and application of sunscreens.



**DDS 651 Infections in Skin Diseases 1(1-0-2)**

The immune system against microorganisms, pathogenesis of skin infection by microorganisms, superficial cutaneous infection, gram-positive bacterial skin infections, necrotizing soft tissue infections, gram-negative bacterial skin infections, viral skin infections, parasitic skin infections; and superficial and deep fungal skin infections.

**DDS 661 Autoimmune Skin Diseases 1(1-0-2)**

The innate and adaptive immune response in the skin: antigen presenting cells, T-cell lymphocytes, and B-cell lymphocytes; mechanisms for autoimmune diseases: genetic factors and environmental factors; pathogenesis of tissue damage in autoimmunity; common autoimmune skin diseases: lupus erythematosus, dermatomyositis, and scleroderma.

**DDS 671 Hair and nail diseases 1(1-0-2)**

History and physical examination, Dermoscopy, Trichoscopy, Diagnosis and treatment of hair and nail diseases, Diphenylcyclopropenone treatment, Cryotherapy for alopecia areata and subungual warts.

Thesis

**DDS 699 Thesis 12(0-36-18)**

Research proposal writing; research design; researching; research article writing; thesis writing; research presentation.