



SHRI
DHARMASTHALA
MANJUNATHESHWARA
UNIVERSITY

Ordinance Governing
MD Dermatology, Venereology & Leprosy
Curriculum 2019-20

SHRI DHARMASTHALA MANJUNATHESHWARA UNIVERSITY

(A State Private University established under the Shri Dharmasthala Manjunatheshwara University
Act No 19 of 2018 of Government of Karnataka and Notification No. ED 261 URC 2018 dated 19th December 2018)

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|| Om Shri Manjunathaya Namaha ||



Shree Kshethra Dharmasthala

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THE LOGO

Poojya Dr D. Veerendra Heggade, Hon'ble Chancellor of the University, while searching for an appropriate Logo for the University, saw a photograph picked from Temple Architecture showing Wings of a Bird, sculpted in Indian style and wanted it to be incorporated in the logo for the University, as the Wings symbolize 'Spreading of Knowledge beyond Boundaries'. Further it was felt that the Central theme of the logo should be 'Rudra' (The Linga) with three wings on each side. In this way, the logo of the University was conceptualized.

Hence:

1. The central part represents **Rudra** who Demolishes Darkness.
2. The Three **horizontal lines on The Linga** stand for Samyak Darshan (Right Belief), Samyak Gyan (Right Knowledge) and Samyak Charitra (Right Conduct).
3. The **Wings** symbolize spreading of Knowledge across the boundaries.
4. Base line "**Truth Liberates**" highlights the Purpose of Education: to liberate oneself unconditionally. It shows that it is not discipline, nor knowledge nor the efforts to freedom that liberate but Truth is what liberates you from all your conditioning and ignorance.

The overall significance of Shri Dharmasthala Manjunatheshwara University's Logo is:

Darkness of ignorance is destroyed by the flow of knowledge to bring Liberty to everyone, by realizing the truth. And, it should spread globally without the boundaries as hindrance.



SHRI
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UNIVERSITY

VISION

Shri Dharmasthala Manjunatheshwara University will set the highest standards of teaching and learning by awakening the intelligence of the students and nurturing the creativity hidden in them by creating an environment where the ancient wisdom blends with modern science, to transform them into whole human beings to face the challenges.

MISSION

- ▶ To ensure that the journey of education is inspiring, pleasant and enjoyable.
- ▶ Attract the best of teachers and students.
- ▶ Achieve high principles of trust, love and spirituality in the students.
- ▶ Create a collaborative, diverse and exclusive community.
- ▶ Transform the student of today to be a leader of tomorrow and a better human being.
- ▶ Produce passionate teachers.
- ▶ Evolve innovative teaching techniques.
- ▶ Create a peaceful environment.
- ▶ Prepare the student to face the social challenges.
- ▶ Create a University of which the Nation is proud of.
- ▶ Be an effective partner in Nation Building.
- ▶ Create an Eco-friendly University.
- ▶ Create a University based on the principles of beauty, love and justice.

||Om Shanti! Om Shanti! Om Shanti||



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SDMU/Notif/28/2019

Date: 24 - 04 - 2019

NOTIFICATION

Regulations and Curricula of Medical Postgraduate Degree Courses in Clinical Subjects - 2019

- Ref:**
1. Minutes of the Board of Studies - Medical PG held on 16-03-2019 (SDMU/BOS PG: 01/2019 dated 16-03-2019)
 2. Minutes of the 1st Joint Faculty Meeting held on 19-03-2019 (Letter No: SDMU/JF/M-01/85/2019; Dated: 19-03-2019)
 3. Minutes of the 1st Meeting of Academic Council held on 20-03-2019 (Letter No: SDMU/AC/M-01/93/2019; Dated: 21-03-2019)
 4. Minutes of the 2nd Meeting of BoM held on 22-03-2019 (Letter No: SDMU/BoM/M-02/94/2019; Dated: 23-03-2019)

Ordinance: In exercise of the powers conferred under Statutes 1.1 (Powers - Section xii), 1.2 (Powers and Functions - Section vii), 1.4 (Powers and Functions - Sections ix & x), 1.5b (Powers and Functions - Sections b & c) of Shri Dharmasthala Manjunatheshwara University, the BoM is pleased to approve and notify the Ordinance governing Regulations and Curricula of the following Medical Postgraduate Degree/ Diploma Courses in Clinical Subjects - 2019:

Sl No	Course	Sl No	Course
1	M.D. (General Medicine)	7	M. D. (Hospital Administration)
2	M. D. (Pediatrics)	8	M. S. (General Surgery)
3	M. D. (Dermatology)	9	M. S. (Ophthalmology)
4	M. D. (Psychiatry)	10	M. S. (Orthopedics)
5	M. D. (Anaesthesiology)	11	M. S. (Otorhinolaryngology)
6	M. D. (Radio-Diagnosis)	12	M. S. (Obstetrics & Gynecology)

Diploma

- 1 Diploma in Public Health

The ordinance shall be effective for the students joining the courses during 2019-20 and onwards.

By Order

REGISTRAR

- To:**
1. The Principal, SDM College of Medical Sciences & Hospital.
 2. Members of BoG, BoM & Academic Council, Shri Dharmasthala Manjunatheshwara University

- Copy to:**
1. The Vice-Chancellor, Shri Dharmasthala Manjunatheshwara University
 2. The Controller of Examinations, Shri Dharmasthala Manjunatheshwara University

MD in Dermatology, Venereology & Leprosy

Preamble:

The purpose of PG education is to create specialists who would provide high quality health care and advance the cause of science through research & training.

A post graduate specialist having undergone the required training should be able to recognize the health needs of community, should be competent to handle effectively the medical problems and aware of recent advances pertaining to the discipline. The PG student should acquire basic skills in teaching medical/para-medical students. The student should be able to counsel patients and relatives in infectious diseases like HIV/AIDS, STDs, cutaneous tuberculosis, leprosy and any event of serious illness or death.

SUBJECT SPECIFIC OBJECTIVES

At the end of 3 years of post graduate training in Dermatology, Venereology & Leprosy:

- Student should have knowledge of basic sciences (Anatomy, Physiology, Biochemistry, Microbiology, Pathology and Pharmacology) as applied to dermatology. The student should acquire in-depth knowledge of his subject including recent advances. The student should be fully conversant with the bedside procedures (diagnostic and therapeutic) and having knowledge of latest diagnostics and therapeutics available.
- Student should have acquired practical and procedural skills related to the subject.
- Critically evaluate, initiate investigation and clinically manage cases in Dermatology, Venereology and Leprosy with the help of relevant investigations.
- Should plan and advise measures for the prevention and rehabilitation of patients with various dermatological conditions.
- Able to ensure the implementation of National Health Programmes, particularly in sexually transmitted diseases (STD) and leprosy.

- Acquire training skills in research methodology, professionalism, attitude and communication skills, as below:
- Student must know basic concepts of research methodology, plan a research project, consult library and online resources, has basic knowledge of statistics and can evaluate published studies.
- Should be able to practice the specialty of dermatology ethically.
- Recognize the health needs of patients and carry out professional obligations in keeping with principles of National Health Policy and professional ethics.
- Teaching skills in the subject
- Student should learn the basic methodology of teaching and develop competence in teaching medical/paramedical students.
- Should have acquired Problem Solving skills

Duration of Study

The period of training for obtaining the degree shall be three completed years including the period of examination.

Provided that in the case of students having a MCI/NMC recognised two year postgraduate diploma course in the same subject, the period of training, including the period of examination, shall be two years.

SUBJECT SPECIFIC COMPETENCIES

By the end of the course, the student should have acquired knowledge (cognitive domain), professionalism (affective domain) and skills (psychomotor domain) as given below:

A. Cognitive domain

At the end of the course, the student should have acquired following theoretical competencies:

- Describe structure, functions and development of human skin.

- Describe ultrastructural aspects of epidermis, epidermal appendages, dermoepidermal junction, dermis, and sub-cutis.
- Describe basic pathologic patterns and reactions of skin.
- Demonstrate the knowledge of common laboratory stains and procedures used in the histopathologic diagnosis of skin diseases and special techniques such as immunofluorescence, immunoperoxidase and other related techniques.
- Describe the basics of cutaneous bacteriology, mycology, virology, parasitology and host resistance.
- Describe papulosquamous and vesiculobullous disorders.
- Describe disorders of epidermal appendages and related disorders.
- Describe inflammatory and neoplastic disorders of dermis.
- Describe skin lesions in nutritional, metabolic and heritable disorders.
- Describe pharmacokinetics and principles of topical and systemic therapy.
- Describe drug reaction, its diagnosis and management.
- Describe cutaneous manifestations of systemic disorders.
- Describe anatomy of male and female genitalia, epidemiological transmission, clinical aspects and management of STDs and HIV.
- Describe clinical features, reactions, treatment and rehabilitation in leprosy.
- Describe etiology, pathophysiology, principles of diagnosis and management of common problems in dermatology including emergencies in adults and children.
- Describe indications and methods for fluid and electrolyte replacement therapy including blood transfusion in dermatological conditions.
- Describe common dermatological malignancies in the country and their management including prevention.
- Should be expert in evaluation of ECG, chest X-ray (CXR), biochemical, haematology and immunology reports related to dermatology.
- Acquire knowledge of common laboratory stains and procedures used in the histopathologic diagnosis of skin diseases and special techniques such as immuno- fluorescence, immuno-peroxidase and other related techniques.
- Acquire knowledge of the basics of laser operation and precautions which needs to be taken.
- Demonstrate competence in basic concepts of research methodology and interpretation of data in medical literature/publications.

- Skilled as a self-directed learner, recognize continuing educational needs; use appropriate learning resources and critically analyze relevant published literature in order to practice evidence-based dermatology;
- Should also have a broad idea how to approach an uncommon dermatological disease.

B. Affective Domain

At the end of the course, the student should have acquired the following attitudinal Competencies

- Demonstrate self-awareness and personal development in routine conduct.
- **Behavior and Emotional Stability:** Dependable, disciplined, dedicated, stable in emergency situations and shows positive approach.
- **Motivation and Initiative:** Is innovative, enterprising, does not shirk duties or leave any work pending and motivates team members.
- **Honesty and Integrity:** Is truthful, admits mistakes, does not cook up information, has ethical conduct and exhibits good moral values.
- **Interpersonal Skills and Leadership Quality:** Has compassionate attitude towards patients and attendants, gets on well with colleagues and paramedical staff, is respectful to seniors, has good communication skills.
- Should be able to maintain confidentiality with regards to history, physical examination and management of patients.
- Identify social, economic, environmental, biological and emotional determinants of patients, and institute diagnostic, therapeutic, rehabilitative, preventive and promotive measures to provide holistic care to patients at individual and community level against skin, venereal disease and leprosy.
- Recognize the emotional and behavioral characteristics of patients and keep these fundamental attributes in focus while dealing with them.
- Demonstrate empathy and humane approach towards patients and their families and respect their sensibilities.
- Demonstrate communication skills of a high order in explaining management and prognosis, providing counseling and giving health education messages to patients, families and communities.

- Organize and supervise the desired managerial and leadership skills.
- Should be able to function as a part of a team, develop an attitude of cooperation with colleagues, and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.
- Always adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health personnel and to respect the rights of the patient including the right to information and second opinion.

C. Psychomotor Domain

A student at the end of training of 3 years of MD programme, must acquire the following practical skills:

- General medical skills as learnt in MBBS to be maintained:
- Should be able to provide basic life support (BLS).
- Should be expert in blood pressure measurement, intravenous access, blood sampling, fluid electrolytes therapy, pleural and cerebrospinal; fluid (CSF) fluid examination.
- Should be able to provide basic and advanced life-saving support services in emergency situations.
- Should be able to undertake complete monitoring of the patient and identify social, economic, environmental and emotional determinants in a given case and take them into account for planning therapeutic measures.
- Recognize conditions that may be outside the area of his specialty/competence and refer them to the proper specialist.

Dermatology, Venereology and Leprosy, HIV/AIDS Skills

The student should:

- Acquire skills in history taking, physical examination, diagnosis and management of patients in dermatology, venereology and leprosy.
- Be able to identify, classify and differentiate cutaneous findings in dermatological terms in a systematic way.
- Be able to perform systemic examination (chest, cardiac, abdomen, neurological, genitals, oral, eye and gynaecological examination) relevant to dermatologic condition.
- Be competent to manage dermatologic emergencies like angioedema, toxic epidermal necrolysis (TEN), Stevens-Johnson syndrome (SJS), pemphigus, drug reaction and necrotic erythema nodosum leprosum (ENL).
- Be able to plan and deliver comprehensive treatment for diseases using principles of rational drug therapy.
- Be able to plan and advise measures for the prevention of infectious disease.
- Be able to plan rehabilitation of patient suffering from chronic illness and disability and those with special needs like leprosy.

- Demonstrate skills in documentation of case details and of morbidity/mortality data relevant to the assigned situation.

Laboratory Skills

The student:

- Should be able to perform common laboratory procedures like potassium hydroxide (KOH) mount, Gram stain, Giemsa stain, acid fast bacilli (AFB) stain, Woods lamp examination, stains, culture media etc. related to the cutaneous diagnosis independently.
- Should be able to order relevant investigations and interpret them to reach to a diagnosis.
- Should be familiar with other recent investigations.

Dermatopathology - Student should be competent enough to:

- To interpret histopathology of common skin diseases.
- To diagnose common skin diseases by examining slides under microscope.

Surgery in dermatology

At the end of training following skills should be performed independently by the student:

1. Should be able to give incisions, take stitches and sutures.
2. Should be trained in taking skin biopsy and nail biopsy.
3. Should be able to perform chemical peels, manual dermabrasion, skin punch grafting and wound dressing independently.
4. Should be able to perform cryosurgery, nail surgery and acne surgery.
5. Able to perform chemical cauterization, cryotherapy, patch and photopatch test, slit smears and tissue smears.

Venereology

1. Should be competent in the clinical approach to the patient of STDs and HIV/AIDS.
2. Should be able to interpret the histopathological diagnosis including laboratory aids related with venereology.

3. Able to perform dark ground illumination, gram stain, Bubo aspiration and tissue smear.
4. 4. Able to manage the patient according to syndromic approach for treatment of STDs.

Leprosy

The student should be:

1. Able to diagnose and approach the case of leprosy.
2. Perform AFB smear.
3. Able to manage cases of lepra reaction.
4. Identify, judge and decide when to refer the patients at appropriate level for surgery or rehabilitation.

1. Syllabus

Course contents

Topics related to allied basic sciences

- The structure, functions and development of human skin.
- Ultra structural aspects of epidermis, epidermal appendages, dermo-epidermal junction, dermis, and sub-cutis.
- Immunology, molecular biology and genetics in relation to the skin.
- Epidermal cell kinetics and keratinization.
- Lipids of epidermis and sebaceous glands.
- Percutaneous absorption.
- Skin as an organ of protection and thermoregulation.
- Biology of eccrine and apocrine sweat glands.
- Biology of melanocytes and melanin formation.
- Biology of hair follicles, sebaceous glands and nails.
- Epidermal proteins.
- Dermal connective tissue: collagen, elastin, reticulin, basement membrane and ground substance.
- Metabolism of carbohydrates, proteins, fats and steroids by the skin.
- Cutaneous vasculature and vascular reactions.

- Mechanism of cutaneous wound healing.
- Cellular and molecular biology of cutaneous inflammation and arachidonic acid metabolism.
- Immunologic aspects of epidermis.
- Human leukocyte antigen (HLA) system.
- Immunoglobulins.
- Cytokines and chemokines.
- Lymphocytes, neutrophils, eosinophils, basophils and mast cells.
- Complement system.
- Hypersensitivity and allergy.
- Cutaneous carcinogenesis (chemical, viral and radiation).
- Basics of cutaneous bacteriology, mycology, virology, parasitology and host resistance.
- Common laboratory procedures, stains, culture media etc. related to the cutaneous diagnosis.
- Basic pathologic patterns and reactions of skin.
- Common laboratory stains and procedures used in the histopathologic diagnosis of skin diseases and special techniques such as immunofluorescence, immunoperoxidase and other related techniques.

Clinical dermatology

- Epidemiology of cutaneous disease.
- Psychologic aspects of skin disease and psycho-cutaneous disorders.
- Pathophysiology and clinical aspects of pruritus.

Papulosquamous diseases

- Psoriasis, pityriasis rubra pilaris, pityriasis rosea.
- Parapsoriasis, lichen planus, lichen nitidus.
- Palmo-plantar keratodermas, Darier's disease, porokeratosis.
- Ichthyoses and ichthyosiform dermatoses.
- Kyrle's disease and other perforating disorders.

Vesiculo - bullous disorders

- Erythema multiforme, Stevens-Johnson syndrome, Toxic epidermal necrolysis.
- Bullous pemphigoid, Pemphigus.

- Chronic bullous disease of childhood.
- Herpes gestationis (pemphigoid gestationis).
- Hereditary epidermolysis bullosa.
- Epidermolysis bullosa acquisita.
- Dermatitis herpetiformis.
- Familial benign pemphigus.
- Subcorneal pustular dermatoses.
- Pustular eruptions of palms and soles.

Disorders of epidermal appendages and related disorders

- Disorders of hair and nails.
- Disorders of sebaceous glands.
- Rosacea, Perioral dermatitis, acne.
- Disorders of eccrine and apocrine sweat glands.
- Follicular syndromes with inflammation and atrophy.

Epidermal and appendageal tumours

- Precancerous lesions, squamous cell carcinoma and basal cell carcinoma
- Keratoacanthoma, benign epithelial tumours, appendageal tumours
- Merkel cell carcinoma, Paget's disease

Disorders of melanocytes

- Disorders of pigmentation, albinism, benign neoplasia and hyperplasias of melanocytes, dysplastic melanocytic nevi, cutaneous malignant melanoma.

Inflammatory and neoplastic disorders of the dermis

- Acute febrile neutrophilic dermatosis (Sweet's syndrome)
- Erythema elevatum diutinum
- Cutaneous eosinophilic diseases
- Granuloma faciale
- Pyoderma gangrenosum
- Erythema annulare centrifugum and other figurate erythemas
- Granuloma annulare
- Malignant atrophic papulosis (Dego's Disease)
- Neoplasms, pseudoneoplasms and hyperplasias of the dermis

- Vascular anomalies
- Kaposi's Sarcoma
- Anetoderma and other atrophic disorders of the skin
- Ainhum and pseudoainhum
- Neoplasias and hyperplasias of neural and muscular origin
- Elastosis perforans serpiginosa and reactive perforating collagenosis

Lmphomas, pseudolymphomas and related conditions

Disorders of subcutaneous tissue

- Panniculitis
- Lipodystrophy
- Neoplasms of the subcutaneous fat

Disorders of the mucocutaneous integument

- Biology and disorders of the oral mucosa
- Disorders of the anogenitalia of males and females

Cutaneous changes in disorders of altered reactivity

- Genetic immunodeficiency diseases
- Urticaria and Angioedema
- Disorders associated with complement abnormalities
- Graft-versus-host Disease
- Muco-cutaneous manifestations in immunosuppressed host other than HIV infection
- Contact dermatitis
- Auto-sensitization dermatitis
- Atopic dermatitis (atopic eczema)
- Nummular eczematous dermatitis
- Seborrhoeic dermatitis
- Vesicular palmoplantar eczema

Skin changes due to mechanical and physical factors

- Occupational skin disease
- Radiobiology of the skin

- Skin problems in amputee
- Sports dermatology
- Skin problems in war field
- Decubitus ulcers

Photomedicine, photobiology and photo immunology in relation to skin

- Acute and chronic effects of ultraviolet radiation and sun light on the skin
- Narrow-band ultraviolet B (NBUVB) therapy, phototherapy, photo chemotherapy

Disorders due to drugs and chemical agents

- Cutaneous reactions to drugs
- Mucocutaneous complications of anti-neoplastic therapy
- Cutaneous manifestations of drug abuse

Dermatology and the ages of man

- Neonatal dermatological problems
- Pediatric and adolescent dermatological problems
- Ageing of skin
- Geriatric dermatological problems

Skin lesions in nutritional metabolic and heritable disorders

- Cutaneous changes in nutritional disease
- Acrodermatitis enteropathica and other zinc deficiency disorders
- Cutaneous changes in errors of amino acid metabolism: Tyrosinemia II
Phenylketonuria, arginine succinic aciduria, and alkaptonuria
- Amyloidosis of the skin
- The porphyrias
- Xanthomatosis and lipoprotein disorders
- Fobry's Disease; galactosidase - a deficiency (Angiokeratoma corporis diffusum
universale)
- Lipid proteinosis
- Cutaneous mineralisation and ossification
- Heritable disorders of connective tissue with skin changes
- Heritable disease with increased sensitivity to cellular injury

- Basal cell Naevus syndrome

Skin manifestations of hematologic disorders

- Skin changes in hematological disease
- Langerhans cell and other cutaneous histiocytoses
- The Mastocytosis syndrome

Skin manifestations of systemic disease

- The skin and disorders of the alimentary tract
- The hepatobiliary system and the skin
- Cutaneous changes in renal disorders, cardiovascular, pulmonary disorders and endocrinal disorders
- Skin changes and diseases in pregnancy
- Skin changes in the flushing disorders and the carcinoid syndrome

Skin manifestations of rheumatologic disease

- Lupus Erythematosus
- Dermatomyositis
- Scleroderma
- Systemic Necrotizing Arteritis
- Cutaneous Necrotising venulitis
- Cryoglobulinemia and Cryofibrinogenemia
- Relapsing Polychondritis
- Rheumatoid Arthritis, Rheumatic Fever and Gout
- Sjogren's syndrome
- Raynaud's phenomenon
- Reiter's syndrome
- Multicentric Reticulohistiocytosis

Cutaneous manifestations of disease in other organ systems

- Sarcoidosis of the skin
- Cutaneous manifestations of Internal Malignancy
- Acanthosis Nigricans
- Scleredema
- Papular Mucinosis
- Neurocutaneous disease
- Tuberous Sclerosis Complex
- The Neurofibromatosis
- Ataxia Telangiectasia
- Behcet's disease

Bacterial diseases with cutaneous involvement

- General considerations of bacterial diseases
- Pyodermas: Staphylococcus aureus, Streptococcus, and others
- Staphylococcal Scalded-Skin syndrome
- Soft Tissue Infections: Erysipelas, Cellulitis, Septicemia and Gangrenous Cellulitis
- Gram-Negative Coccal and bacillary infections
- Bartonellosis
- Miscellaneous bacterial infections with cutaneous manifestations
- Tuberculosis and other mycobacterial infections
- Actinomycosis, Necardiosis, and Actinomycetoma
- Lyme Borreliosis
- Kawasaki Disease

Fungal diseases with cutaneous involvement

- Superficial fungal infection: Dermatophytosis, Tinea Nigra, Piedra
- Yeast Infections: Candidiasis, Pityriasis (Tinea) Versicolor
- Deep Fungal Infections

Viral and rickettsial disease

- Viral Diseases: general consideration
- Rubella (German Measles)
- Measles
- Hand, Foot and Mouth Disease
- Herpangina
- Erythema Infectiosum and Parvovirus B 19 infection
- Herpes simplex
- Varicella and Herpes Zoster
- Cytomegalovirus Infection
- Epstein - Barr Virus Infections
- Human Herpes virus 6 & 7 infections and Exanthem subitum (Roseola Infantum or Sixth Disease)
- Smallpox and Complications of small pox vaccination
- Contagious Pustular Dermatitis, Contagious Ecthyma: Orf virus infection
- Moluscum Contagiosum
- Milker's Nodules

- Warts
- Human Retroviral Disease: Human T-Lymphotropic Virusviruses

Therapeutics

Topical therapy

- Pharmacokinetics principles in topical applications of drugs.
- Principles of topical therapy.

Topical agents

- Glucocorticoids, Acne therapies, Analgesics, Anesthetics, Anti-inflammatory, Anti-hair loss, Anti-microbial, Anti-parasitic, Anti-perspirants, Anti-pruritic, Antiviral, Astringents, Bleaching agents, Keratolytics, Psoriasis therapies, Wart therapies, Topical Retinoids, Topical Antibiotics, Topical Anti-fungal Agents, Sun-protective Agents, Keratolytic Agents, Topical Cytotoxic Agents, Cosmetics and Skin care in practice.

Systemic therapy

- Systemic glucocorticoids, Sulfones, Aminoquinolines, Cytotoxic and Antimetabolic Agents, Oral Retinoids, Antihistamines, Antibiotics, Antiviral Drugs, Oral Antifungal Agents, Immunosuppressive and Immunomodulatory drugs, Thalidomide, photo-chemotherapy and photo-therapy, electric cautery, cryotherapy, electrolysis, tattooing, intra-lesional injections etc.

Surgery in dermatology

- Dermatologic Surgery: Introduction and Approach
- Skin Resurfacing: Chemical Peels
- Skin Resurfacing: Dermabrasion
- Skin Resurfacing: Laser
- Skin punch grafting
- Wound Dressings
- Cryosurgery
- Nail Surgery

Venereology

- Clinical approach to the patient of sexually transmitted disease

- Anatomy of male and female genitalia
- Epidemiological aspects of STDs
- Viral STDs including HIV, Herpes, Human Papilloma virus (HPV), Molluscum contagiosum, Espirito Santo virus (ESV) etc.
- Bacterial STD's: Syphilis, Gonorrhoea, Chancroid, Donovanosis
- Chlamydial infections: Lymphogranuloma venereum, urethritis, cervicits, nongonococcal urethritis (NGU), non-specific vaginitis etc.
- Fungal: Candidiasis
- Protozoal: Trichomoniasis
- Ectoparasitic: Scabies, Pediculosis infestations.
- Syndromic management of STDs
- HIV/AIDS - Epidemiology, transmission, patient load, High risk groups, Cutaneous manifestations of HIV, treatment of opportunistic infections, Antiretroviral therapy, management of STDs in HIV positive cases
- STDs in reproduction health and Pediatrics
- STDs and HIV
- Prevention, counselling and education of different STDs including HIV
- National Control Programmes of STDs and HIV infection Medico-legal, social aspects of STDs including psychological and behavioural abnormalities in STD patients

Leprosy

- Approach to the patient with leprosy
- Epidemiological aspects
- Structure, biochemistry, microbiology of Mycobacterium leprae
- Animal models
- Pathogenesis
- Classification
- Immunology and molecular biological aspects
- Histopathology and diagnosis including laboratory aids
- Clinical features
- Reactions
- Systemic involvement (Ocular, bone, mucosa, testes and endocrine etc.)

- Pregnancy and leprosy
- HIV infection and leprosy

TEACHING AND LEARNING METHODS

A post graduate student pursuing the course should work in the institution as a full time student. No candidate should be permitted to run a clinic/laboratory/nursing home while studying postgraduate course. Each year should be taken as a unit for the purpose of calculating attendance. Every student shall attend teaching and learning activities during each year as prescribed by the department and should not be absent from work without valid reasons.

Teaching methodology:

A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills outlined is given below.

1. **Lectures:** Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated.

a. Didactic Lectures: Few topics are suggested as examples:

- i. Bio-statistics
- ii. Use of library
- iii. Research Methodology
- iv. Medical code of Conduct and Medical Ethics
- v. National Health and Disease Control Programmes
- vi. Communication Skills These topics may preferably be taken up in the first few weeks of the first year.

b. Integrated Lectures: Some of the topics may be taken up by multidisciplinary teams e.g. Jaundice, Diabetes mellitus, Thyroid etc.

2. **Journal Club & Subject seminars:** Both are recommended to be held once a week. All PG students are expected to attend and actively participate in discussion and enter relevant details in the Log Book. Further, every post graduate student must make a presentation from the allotted journal(s), selected articles at least four times a year. The presentations would be evaluated and would carry weightage for internal assessment.

3. **Student Symposium:** Recommended as an optional multi-disciplinary programme. The evaluation may be similar to that described for subject seminar.

4. **Ward Rounds:** Ward rounds may be service or teaching rounds.
 - a. **Service Rounds:** Post graduate students and Interns should be responsible for everyday care of the patients. Newly admitted patients should be worked up by the PGs and presented to the seniors the following day.
 - b. **Teaching Rounds:** Every unit should have 'grand rounds' for teaching purpose. A diary (log book) should be maintained for day to day activities by the students. Entries of (a) and (b) should be made in the Log book. Log books shall be checked and assessed periodically by the faculty members imparting the training.

5. **Clinical Case Presentations:** Minimum of 5 cases to be presented by every postgraduate student each year. They should be assessed using check lists and entries made in the log book

6. **Clinico-Pathological Conference (CPC):** Recommended once a month for all post graduate students. Presentation is to be done by rotation. If cases are not available, it could be supplemented by published CPCs.

7. **Inter-Departmental Meetings:** Strongly recommended particularly with Departments of Pathology and Radio-Diagnosis at least once a week. These meetings should be attended by post graduate students and relevant entries must be made in the Log Book.
 - a. **Pathology:** A dozen interesting cases may be chosen and presented by the postgraduate students and discussed. The staff of Pathology department would then show the slides and present final diagnosis. In these sessions, the advances in immuno-histochemical techniques can be discussed.
 - b. **Radio diagnosis:** Interesting cases and imaging modalities should be discussed.

8. **Teaching Skills:** The post graduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.

9. The post graduate students should undertake audit, use information technology tools and carry out research, both basic and clinical, with the aim of publishing the work and presenting the same at various scientific fora.
10. **Continuing Medical Education Programmes (CME):** At least two CME programmes should be attended by each student during the MD programme.
11. **Conferences:** The student should attend courses, conferences and seminars relevant to the speciality.
12. A postgraduate student of a postgraduate degree course in broad specialities/super specialities would be required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published/accepted for publication/sent for publication during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.
13. **Department should encourage e-learning activities.**
14. **Rotation:**

Clinical Postings

A major tenure of posting should be in the Department of Dermatology. It should include care of in-patients, out-patients, special clinics like STD clinic, leprosy clinic, vitiligo clinic and maintenance of case records for both in- and out-patients.

A short posting for 2-4 weeks in the Department of Medicine is to be arranged for exposure to Emergency Medicine and Resuscitation. A short posting for 2-4 weeks in the Department of Plastic Surgery.

15. Clinical meetings:

There should be intra - and inter- departmental meetings for discussing uncommon /interesting medical problems. Each student must be asked to present a specified

number of cases for clinical discussion, perform procedures/tests/operations/present seminars/review articles from various journals in inter-unit/interdepartmental teaching sessions. These should be entered in a Log Book; log books should be checked and assessed periodically by the faculty members imparting the training.

16. Thesis writing:

Thesis writing is compulsory. All MD students are required to carry out work on a selected research project under the guidance of a recognized post graduate teacher, the result of which shall be written up and submitted in the form of a Thesis.

During the training programme, patient safety is of paramount importance, therefore, skills are to be learnt initially on the models, later to be performed under supervision followed by performing independently; for this purpose, provision of surgical skills laboratories in medical colleges is mandatory.

ASSESSMENT

FORMATIVE ASSESSMENT, i.e., during the training may be as follows:

Formative assessment should be continual and should assess medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self-directed learning and ability to practice in the system. Quarterly assessment during the MD training should be based on:

1. Journal based / recent advances learning
2. Patient based /Laboratory or Skill based learning
3. Self-directed learning and teaching
4. Departmental and interdepartmental learning activity
5. External and Outreach Activities / CMEs

SUMMATIVE ASSESSMENT, i.e., at the end of training

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000. (MCI)The examination shall be in three parts:

1. Thesis

Thesis shall be submitted at least six months before the Theory and Clinical /Practical examination. The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examination. A post graduate student shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

2. Theory Examination:

There shall be four papers each of three hours duration. Each paper shall consist of two long essay questions, three short essay questions and four short notes. These are:

Paper – I Basic Science as applied to Dermatology, STDs and Leprosy

Paper – II Dermatology

Paper – III STD & Leprosy

Paper – IV Recent advances in field of Dermatology, Applied Sciences pertaining to skin /VD & internal medicine and skin

3. Clinical / Practical and viva voce Examination

Practical examination should be taken to assess competence and skills of techniques and procedures and should consist of two long cases, two short cases and 10 spots. During oral/viva voce examination, student should be evaluated for Interpretation of data, instruments, clinical problems, radiological and biochemical investigations, slides, drugs, X-rays etc.

Maximum marks for M.D examination	Theory	Practical	Viva	Total
	400	200	100	700

Recommended Reading:

Books (latest edition)

- Sexually Transmitted Diseases - Sharma V K
- IADVL Text book of Dermatology - R G Walia

- IAL Textbook of Leprosy - H Kar
- Bologna "Textbook of Dermatology"
- Text Book of Dermatology, Wilkinson/Ebling/Rook, 4 Volumes, Oxford
- Text Book of Dermatology, Samuel L. Moschelia M.D. Harry J. Hurlay M.D., 2 Volumes
- Histopathology of the Skin, Walter - F. Lever- Gundula Schaumburg Lever
- Atlas of Dermatology, 2 Volumes, Bhalani Publishing House, Dadar, Mumbai.
- Diseases of the skin, Larry L Arnold Richard 13-Dom William D. James, Andrews
- Differential Diagnosis in Dermatology, Satish S. Savant, Radha Atalshah, Deepak Gore, Richard Ashan, Barbara Lepdard
- Leprosy, Dharmendra, 2 Volumes, Samant and Company, Mumbai.
- Recent Advances in Dermatology, Champion, R.H. Pye, R.J. 8th Volumes.
- Venereal Diseases, Amborse King Claude Nicol Philip Rodin, EL.BS English Language Book Society/ Baillere Tindal, East Sussex.
- Sexually Transmitted Diseases, King K Holmes, McGraw-Hill Health profession
- Hand Book of leprosy, Jopling W.H, William Hethgunnah Medical Book Ltd., London.
- Dermatology in General Medicine, Thomas B. Fitzpatrick, McGraw Hill Book Company.
- Fundamentals of Pathology of skin, Mysore Venkataram

Journals

Three international and two national journals (all indexed)

Some of the Journals Suggested

Sl. No.	Print Journals
1	Indian Journal of Dermatology
2	Indian Journal of Dermatology, Venerology & Leprology
3	Indian Journal of Sexually Transmitted Diseases & AIDS
4	Dermatologic Clinics
5	International Journal of Dermatology
6	Journal of the American Academy of Dermatology
7	Leprosy Review
	Online Journals
1	American Journal of Clinical Dermatology
2	Archives of Dermatological Research
3	Clinical Skin Cancer
4	Clinics in Dermatology
5	Dermatologic Clinics
6	Dermatologica Sinica
7	Dermatologie in Beruf und Umwelt
8	Dermatology & Therapy
9	Dermatology (Actas Dermo- SifiliogrÁficas, English Edition)
10	Indian Journal of Dermatology, Venerology & Leprology
11	Journal of Dermatological Science
12	Journal of Investigative Dermatology
13	Journal of Investigative Dermatology. Symposium Proceedings
14	Journal of the American Academy of Dermatology
15	Sexually Transmitted Infections

Postgraduate Students Appraisal Form

Dermatology

Name of the Department/Unit:

Name of the PG Student:

Period of Training: FROM.....TO.....

Sr. No.	PARTICULARS	Not Satisfactory	Satisfactory	More Than Satisfactory	Remarks
		1 2 3	4 5 6	7 8 9	
01	Journal based / recent advances learning				
02	Patient based /Laboratory or Skill based learning				
03	Self-directed learning and teaching				
04	Departmental and interdepartmental learning activity				
05	External and Outreach Activities / CMEs				
06	Thesis / Research work				
07	Log Book Maintenance				

Publications

Yes/ No

Remarks* _____

*REMARKS: Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested. Individual feedback to postgraduate student is strongly recommended.

SIGNATURE OF ASSESSEE

SIGNATURE OF CONSULTANT

SIGNATURE OF HOD



SDM College of Medical Sciences & Hospital



SDM College of Dental Sciences & Hospital



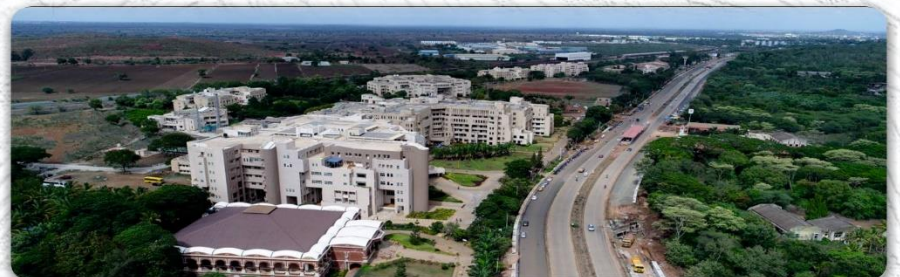
SDM College of Physiotherapy &
SDM Institute of Nursing Sciences



Shri Dharmasthala Manjunatheshwara University



SDM Research Institute for Biomedical Sciences



Panoramic View of Campus