



**SRM**  
UNIVERSITY  
(Under section 3 of UGC Act 1956)



## **MD Dermatology, Venereology and Leprosy**

Curriculum and Syllabus 2015

Branch Code: 15

**SRM Medical College Hospital & Research Centre**

SRM University

SRM Nagar, Kattankulathur

Kancheepuram (Dt). 603 203



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**MD (DERMATOLOGY VENEREOLOGY AND LEPROSY)**

**1. GOAL:**

This goal of postgraduate medical education shall be to produce competent specialists and / or Medical Teachers-

- (i) Who shall recognize the health needs of the community and carry out professional obligations ethically and in keeping with the objectives of the national health policy.
- (ii) Who shall have mastered most of the competencies pertaining to the specialty, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system
- (iii) Who shall be aware of the contemporary advances and developments in the discipline concerned;
- (iv) Who shall have a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology
- (v) Who shall have acquired the basic skills in teaching of the medical and paramedical professionals

**GENERAL OBJECTIVES OF POST GRADUATE TRAINING EXPECTED FROM STUDENTS AT THE END OF POST GRADUATE TRAINING.**

At the end of the postgraduate training in the discipline concerned the student shall be able to:

- (i) Recognize the importance of dermatology in the context of the health needs of the community and the national priorities in the health sector.
- (ii) Practice the specialty concerned ethically and in step with the principles of primary health care.

- (iii) Demonstrate sufficient understanding of the basic sciences relevant to the Dermatology, Venereology and Leprosy.
- (iv) Identify social, economic, environmental, biological, and emotional determinants of health in a given case, and take them into account while planning therapeutic, rehabilitative, preventive, and promotive measures/strategies.
- (v) Diagnose and manage majority of the conditions in dermatology, venereology and leprosy concerned on the basis of clinical assessment and appropriately selected and conducted investigations.
- (vi) Plan and advice measures for the prevention and rehabilitation of patients suffering from disease and disability.
- (vii) Demonstrate skills in documentation of individual case details as well as morbidity and mortality data relevant to the assigned situation.
- (viii) Demonstrate empathy and humane approach towards patients and their families and exhibit interpersonal behavior in accordance with societal norms and expectations.
- (ix) Play the assigned role in the implementation of national health programmes, effectively and responsibly.
- (x) Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/ hospital or the field situation.
- (xi) Develop skills as a self directed learner; recognize continuing educational needs; select and use appropriate learning resources.
- (xii) Demonstrate competence in the basic concepts of research methodology and epidemiology, and be able to critically analyze relevant published research literature.

- (xiii) Develop skills in using educational methods and techniques as applicable to the teaching of medical / nursing students, general physicians and paramedical health workers.
- (xiv) Function as an effective leader of health team engaged in health care, research or training.

## **2.COURSE OVERVIEW**

### **DURATION OF THE COURSE**

The period of certified study and training for the Post-Graduate MD DERMATOLOGY shall be Three Academic years (six academic terms). The academic terms shall mean six months training period.

### **COMMENCEMENT OF ACADEMIC SESSION**

The academic session for the Post-Graduate shall commence from May/June of the Academic Year.

### **DATE OF EXAMINATION**

The students admitted up to May /June of the academic year shall be registered for that academic year and shall take up their Final Third Year regular examination in April /October of the academic year after completion of 3 years/ 36 months.

### **NUMBER OF EXAMINATIONS**

The University shall conduct not more than two examinations in a year, for any subject, with an interval of not less than 4 and not more than 6 months between the two examinations.

### **ATTENDANCE**

All students joining the postgraduate training programme shall work as full time residents during the period of training, attending not less than 80% (eighty percent) of the training during each calendar year, and will be given full time responsibility, assignments and participation in all facets of the educational process.

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

### **3.THEMES AND TOPICS**

Dermatology is one of the broad specialties of medical science.

Past two decades have witnessed several new developments in the field of diagnosis and treatment of skin diseases.

The topics covered in the 3 academic years will include

1. Dermatology- Basic sciences, clinical topics, lab investigations, therapeutics, dermatosurgery and recent advances.
2. Venereology-Basic sciences, clinical topics, lab investigations, therapeutics and recent advances.
3. Leprosy-Basic sciences, clinical topics, lab investigations, therapeutics, rehabilitation, disability prevention, community programmes.

### **4. SYLLABUS**

#### **Theory**

#### **TOPICS RELATED TO ALLIED BASIC SCIENCES**

- The structure, function and development of human skin.
- Ultra structure aspects of epidermis, epidermal appendages, dermo-epidermal junction, dermis and subcutis.
- Immunology, molecular biology and genetics in relation to the skin.
- Epidermal cell kinetics and keratinisation.
- Lipids of epidermis and sebaceous glands.
- Percutaneous absorption.
- Skin as an organ of protection and thermoregulation.
- Biology of eccrine and apocrine 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.
- Immunological aspects of epidermis.
- HLA system
- Immunoglobulins
- Cytokines and chemokines
- Lymphocytes, neutrophils, eosinophils, basophils and mast cells
- Complement system
- Hypersensitivity and allergy
- Cutaneous carcinogenesis( chemical, viral & radiation )
- Basics of cutaneous bacteriology, mycology, virology, parasitology and host resistance
- Common laboratory procedures, stains and culture media etc., related to the  
Cutaneous diagnosis
- Basic pathologic patterns and reactions of skin
- Common laboratory stains and procedures, used in the histopathology
- Diagnosis of skin diseases and special techniques such as immunofluorescence, immunoperoxidase and other related techniques.



## **CLINICAL DERMATOLOGY**

- Epidemiology
- Psychologic aspects of skin disease
- Pathophysiology and clinical aspects of pruritus

## **PAPULOSQUAMOUS DISEASES & DISORDERS OF KERATINISATION**

- Psoriasis, Pityriasis rubra pilaris, pityriasis rosea.
- Parapsoriasis, Lichen Planus, Lichen nitidus
- Palmo-plantar keratodermas, Darier's disease, Prokeratosis
- Ichthyoses and ichthyosiform dermatoses

## **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 dermatitis (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 ( Deigo's Disease)
- Neoplasms, Pseudo neoplasms and Hyperplasias of the Dermis
- Vascular Anomalies
- Kaposi's Sarcoma
- Anetoderma and other Atrophic Disorders of the skin
- Ainhum and pseudoainhum
- Neoplasia and hyperplasias of Neural and Muscular origin
- Elastosis Perforans Serpiginosa and Reactive Perforating Collagenosis

## **LYMPHOMAS, PSEUDOLYMPHOMAS 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 Disease
- Urticaria and Angioderma
- Disorders associated with Complement Abnormalities
- Graft-versus Host Disease
- Muco-cutaneous Manifestations in immuno- suppressed host other than HIV infection
- Contact Dermatitis
- Auto Sensitization Dermatitis
- Atopic Dermatitis (Atopic Eczema)
- Nummular Eczematous Dermatitis
- Seborrhoeic Dermatitis
- Vesicular Palmoplantar Eczema, Kyrles diseases and other perforating disorders

## **SKIN CHANGES DUE TO MECHANICAL AND PHYSICAL FACTORS**

- Occupational skin disease
- Radiobiology of the skin
- Skin problems in Ampuree
- Sports Dermatology

- Skin problems in War-field
- Decubitus Ulcers

### **PHOTOMEDICINE, PHOTOBIOLOGY AND PHOTOIMMUNOLOGY IN RELATION TO SKIN**

- Acute and Chronic Effects of Ultraviolet Radiation and sunlight on the skin

### **DISORDERS DUE TO DRUGS AND CHEMICAL AGENTS**

- Cutaneous reactions to drugs
- Mucocutaneous Complications of Antineoplastic 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, Argininesuccinic Aciduria, and Alkaptonuria.
- Amyloidosis of the skin
- The Porphyrrias
- Xanthomatosis and Lipoprotein Disorders
- Fabry's Disease: Galactosidase- A Deficiency (Angiokeratoma CorporisDiffusum Universale)
- Lipoid Proteinosis

- Cutaneous Mineralisation and Ossification
- Heritable Disorders of Connective Tissue with Skin Changes
- Heritable Disease with increased Sensitivity to Cellular Injury
- Basal Cell Nevus Syndrome

#### **SKIN MANIFESTATIONS OF HEMATOLOGIC DISORDERS**

- Skin changes in Hematological Disease
- Langerhans Cell and other cutaneous histiocytosis
- 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 necrotizing venulitis
- Cryoglobulinemia and cryofibrinogenemia
- Relapsing polychondritis
- Rheumatoid arthritis, Rheumatic fever and Gout
- Sjogrens syndrome
- Raynaud's syndrome
- Reiter's syndrome

- Multicentric reticulohistiocytosis

## **CUTANEOUS MANIFESTATIONS OF DISEASES 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 telangectasia
- Behcet's disease

## **BACTERIAL DISEASES WITH CUTANEOUS INVOLVEMENT**

- General considerations of bacterial diseases
- Pyodermas: Staphylococcus aureus, Streptococcus and others
- Soft tissue infections: Erysipelas, Cellulitis and Gangrenous cellulitis
- Gram negative coccal and bacillary infections
- Bartonellosis
- Miscellaneous bacterial infections with cutaneous manifestations
- Tuberculosis and other mycobacterial infections
- Actinomycosis, Nocardiosis and Actinomycetoma
- Lyme Borreliosis
- Kawasaki disease

## **FUNGAL DISEASES WITH CUTANEOUS INVOLVEMENT**

- Superficial fungal infections
- Yeast infections: Candidiasis, Pityriasis versicolor

- Deep fungal infections

## **VIRAL AND RICKETSIAL 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 and 7 infections and Exanthem subitum
- Roseola infantum or sixth disease
- Smallpox and complications of small pox vaccination
- Contagious pustular dermatitis, Ecthyma contagiosum: Orf virus infections
- Molluscum contagiosum
- Milker's nodules
- Warts
- Human retroviral disease: Human T-Lymphotropic viruses

## **THERAPEUTICS**

### **TOPICAL THERAPY**

- Pharmacokinetics and topical application of drugs
- Principles of topical therapy

## **TOPICAL AGENTS**

- Glucocorticoids, Acne therapies, Analgesics, Anesthetics, Anti-inflammatory drugs, Anti hairloss, Antimicrobials, Anti-parasitic, Anti-perspirants, Antipruritic, Antiviral, Astringents, Bleaching agents, Keratolytics, Psoriasis therapies, Wart therapies, Topical retinoids, Topical antibiotics, Topical antifungals, Sun-protective agents, Topical cytotoxic agents, Cosmetic and skin in practice.

## **SYSTEMIC THERAPY**

- Systemic glucocorticosteroids, Sulfones, Aminoquinolones, Cytotoxic and antimetabolic agents, Oral retinoids, Antihistamines, Antibiotics, Antiviral drugs, Oral antifungal agents, Immunosuppressive and Immunomodulatory drugs, Thalidomide

## **PHOTOCHEMOTHERAPY AND PHOTOTHERAPY**

- UVA
- UVB
- NBUVB

## **DERMATOSURGERY**

- Introduction and approach
- Skin biopsy
- Electrocautery, Radiofrequency ablation
- Cryotherapy, Electrolysis, Tattooing (micropigmentation), Intra-lesional injections
- Acne surgery-Dermabrasion, Microdermabrasion, Subcision
- Chemical peels
- LASERS- Various types used in conditions like hair removal, pigmentary disorders, vascular conditions, skin resurfacing
- Punch grafting



- Wound dressings
- Liposuction
- Hair transplantation and Alopecia reduction
- Nail surgery

## **VENEREOLGY**

- Clinical approach to the patient of sexually transmitted diseases
- Anatomy of male, female genitalia, CVS and CNS
- Historical and Epidemiological aspects of STD's
- Viral STD's including HIV, Herpes, HPV, Molluscum contagiosum, EBV, HBV, HCV
- HPV vaccines
- Bacterial STD's-Syphilis, Gonorrhoea,Chancroid, Donovanosis, Bacterial vaginosis
- Chlamydial infections: LGV, uretheritis, cervicitis, NGU, Non-specific vaginitis
- Mycoplasma infections
- Non-venereal Treponematosi
- Non -venereal conditions of genitalia
- Sex problems
- Venereoneurosis and phobias
- Fungal infections-Candidiasis, Pneumocystitis carinii infections
- Protozoal: Trichomoniasis
- Ectoparasitic : Scabies, Pediculosis infestations
- Syndromic management of STD's
- STD's in reproduction health and paediatrics
- Other STD's and HIV inter related impacts

- Preventions, counseling and education of different STD's and HIV infection
- National control programmes of STD's and HIV infection
- Medicolegal, social aspects of STD's including psychological and behavioural abnormalities in STD patients
- Therapy of STD's inclusive of HIV and opportunistic infection, CDC and NACO recommendation
- Historical aspects in HIV/AIDS

## **LEPROSY**

- Approach to the patient with leprosy
- Epidemiological aspects
- Structure, biochemistry, microbiology of *Mycobacterium leprae*
- Animal models
- Pathogenesis
- Classification
- Immunology, Serodiagnosis of Leprosy
- 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
- Therapeutic aspects including newer drugs
- Immunotherapy
- Disabilities, deformities and rehabilitation

- Prevention, education and counseling
- National leprosy control and elimination programme

## PRACTICALS

1. Adequate skills in the clinical examination of the patient including approach to the patient history taking, knowledge about basic skin lesions, proper dermatological and systemic examinations and familiarity with elicitation of important clinical signs and tests such as Auspitz, Nikolskys, Darier, dermatographism, diascopy, Grattage test, proper evaluation of cutaneous sensations etc
2. Basic skills in the laboratory investigations related to the diseases of skin, STD and leprosy
  - a. Scrapings of skin, nail and hair for fungus and ectoparasites
  - b. Slit skin smear examination for AFB, LD bodies
  - c. Woods lamp examination
  - d. Tzanck smear
  - e. Basic stains (microbiological and histopathological) and staining procedures used in the diagnosis such as AFB, Grams, Geimsa, PAP
  - f. Darkground microscopy
  - g. Microscopic examination of urine
  - h. Skin biopsy
3. Knowledge about the preventive aspects, education, counseling, services to the patient and National control programmes in India for leprosy, STD's and HIV infection
4. Adequate skills in dermatological surgery such as elctrocautery and fulguration, tattooing, comedone extraction, chemical peels, excision of growths and cysts, dermabrasion, skin punch grafting, narrow hole

extrusion of lipoma, skin resurfacing, intralesional steroid, cryosurgery, nail surgery, phototherapy, Lasers.

## 5. TEACHING SCHEDULE FOR POST GRADUATES

### DEPARTMENT OF DERMATOLOGY, VENEROLOGY AND LEPROSY

#### TEACHING SCHEDULE FOR POST GRADUATES

DAY	08.00 AM -08.30 AM BASIC SCIENCE CLASS	08.30AM – 10.00AM	10.00AM – 12.30PM	12.30PM -1.30PM	2.30PM – 3.30PM	3.30 PM – 4.00PM
MONDAY	PATHOLOGY	WARD ROUNDS	OUT PATIENT CLINIC	HISTOPATHOLOGY	LECTURE-GENERAL DERMATOLOGY	GROUP DISCUSSION
TUESDAY	STD	WARD ROUNDS	OUT PATIENT CLINIC	SHORT CASE DISCUSSION	LOG BOOK REVIEW	GROUP DISCUSSION
WEDNESDAY	ANATOMY, PHYSIOLOGY & BIOCHEMISTRY	WARD ROUNDS	OUT PATIENT CLINIC	LONG CASE DISCUSSION	DISSERTATION REVIEW	GROUP DISCUSSION
THURSDAY	PHARMACOLOGY & THERAPEUTICS	WARD ROUNDS	OUT PATIENT CLINIC	SYMPOSIUM	LECTURE TROPICAL DERMATOLOGY	GROUP DISCUSSION
FRIDAY	MICROBIOLOGY	WARD ROUNDS	OUT PATIENT CLINIC	JOURNAL CLUB	LECTURE RECENT ADVANCES	GROUP DISCUSSION
SATURDAY	WARD ROUNDS	WARD ROUNDS	OUT PATIENT CLINIC	OUT PATIENT CLINIC	WEEKLY TEST	WEEKLY TEST

## **5.MAINTENANCE OF LOG BOOK**

1. Every PG Student shall maintain a record of skills he has acquired during the two year training period certified by the various Heads of Department in which he had undergone training.
2. The students should also be required to participate in the teaching and training programme of under graduate students.
3. In addition, the head of the department shall involve their PG students in seminars. Journal clubs, Group discussions and participation in clinical, clinical - pathological conferences.
4. Every PG student should be encouraged to present short title papers in conferences and to make improvements on it and submit them for publication in reputed medical Journals. Motivation by the Heads of departments is essential in this area to sharpen the research skills of the PG students.
5. The head of the department shall scrutinize the log book once in every three months.
6. At the end of the courses, the student should summarise the contents and gets the log book certified by the Head of the Department.
7. The log Book should be submitted at the time of practical examination for the scrutiny of the board of examiners.

**5.1** It is preferable that a post graduate student during the course to present one poster presentation and /or to read one paper at a national /state conference and /or to present one research paper which can be published/accepted for publication/sent for publication during the period of his/her postgraduate studies.

## 6. THESIS

Every student registered as post graduate shall carry out work on an assigned 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.

Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the student to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Thesis shall be submitted at least six months before the theoretical and clinical / practical examination.

The thesis shall be a bound volume of a minimum of 50 pages and not exceeding 75 pages of typed matter (Double line spacing and on one side only) excluding certification, acknowledgements, annexure and bibliography.

Thesis should consist of

- (a) Introduction
- (b) Review of literature
- (c) Aims and objectives
- (d) Material and methods
- (e) Result
- (f) Discussion
- (g) Summary and conclusion
- (h) Tables
- (i) Annexure
- (j) Bibliography

Four copies of thesis shall be submitted six months prior to the commencement of the theory examinations on the date prescribed by the Controller of Examinations of this University. The thesis should be approved by the Professor of that branch and the same has to be forwarded to the Controller of Examinations, by the head of the department through the Dean of the college.

Two copies in addition are to be submitted as an electronic version of the entire thesis in a standard C.D. format by mentioning the details and technicalities used in the C.D. format.

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; and on the acceptance of the thesis by two examiners, the student shall be allowed to appear for the final examination.

#### **EVALUATION OF THESIS :**

##### **ACCEPTED / NOT ACCEPTED**

No marks will be given

#### **EXAMINATION:**

Basic medical sciences examinations shall be conducted along with main papers at the end of third academic year. The examinations shall be organized on the basis of grading or marking system to evaluate and certify student's levels of knowledge, skills and competence at the end of the training and obtaining a minimum of 50% marks in theory as well as practical separately shall be mandatory for passing the whole examination.

##### **(1) NUMBER OF STUDENTS:**

The maximum number of students to be examined in clinical /practical and oral on any day shall not exceed 6 for M.D.

##### **(2)NUMBER & COMMENCEMENT OF EXAMINATIONS**

The university shall conduct two examinations in an academic year (last week of May/November), for any subject with an interval of not less than 4 and not more than 6 months between the two examinations. If the date of commencement of the examination falls on Saturdays, Sundays or declared public Holidays, the examination shall begin on the next working day.

**(3) M.D. Examinations in any subject shall consists of Thesis, Theory papers and Clinical /Practical and oral examinations.**

**(a)Thesis**

Four copies of thesis shall be submitted six months before the theory and clinical examination

**(b) Theory**

- (i) There shall be four theory papers
- (ii) Out of these one shall be of basic medical science and one shall be of recent advances.
- (iii) The theory examination shall be held sufficiently earlier than the clinical and practical examination, so that the answer books can be assessed and evaluated before the start of the clinical /practical and commencement of these regulations, there shall be one theory paper of 'multiple choice question'; unless this institution wants to have such paper earlier.

**( c )Clinical / Practical and Oral**

- (i) Clinical examination for the subjects in clinical sciences shall be conducted to test the knowledge and competence of the students for undertaking independent work as a specialist/teacher, for which students shall examine a minimum of one long case and three short cases.
- (ii) The oral examination shall be through and shall aim at assessing the student's knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the specialty which form a part of the examination.



## **7.SCHEME OF EXAMINATION**

### **AT THE END OF THIRD YEAR**

#### **PAPER 1**

Applied basic sciences related to dermatology, venereology and leprosy

1. Anatomy-Short notes	4X5 marks=20marks
2. Physiology - Short notes	4x5 marks=20 marks
3. Biochemistry - Short notes	3x5 marks=15 marks
4. Pharmacology- Short notes	3x5 marks=15 marks
5. Pathology - Short notes	3x5 marks=15 marks
6. Microbiology- Short notes	3x5 marks=15 marks

**Total 100 marks**

#### **PAPER 2**

General dermatology including skin manifestations of systemic and venereal diseases

Problem solving questions	3 x 10	= 30 marks
Short notes	5 x 6	= 30 marks
Essays	2x 20	= 40 marks

**Total 100 marks**

#### **PAPER 3**

Tropical dermatology including social aspects of venereal diseases and leprosy

Essays	2 x 20	= 40 marks
Short notes	10 x 6	= 60 marks

**Total 100 marks**

#### **PAPER 4**

Therapeutics, Dermatosurgery and Recent advances in dermatology, venerology and leprosy

Essays	2 x 20	= 40 marks
Shortnotes	10 x6	= 60 marks

**Total 100 marks**

**Theory Total 400 marks**

**PRACTICAL EXAMINATION: WILL BE HELD FOR A DAY**

**Morning**

**Clinical examination**

1 long case

2 short cases (comprising 1 venerology and 1 leprosy case)

10 spotters

<b>Case</b>	<b>Number</b>	<b>Duration</b>	<b>Marks</b>
Long	1	45min	80
Short	2	20min	80
Spotters	10	30min	40
<b>TOTAL</b>			<b>200</b>

**Afternoon session**

Practicals – Slides (2), Specimen (1), Charts (2) 25

Viva Voce 75

**TOTAL 100**

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Clinical/ Practical and Viva Total **300**  
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Viva voce comprising of radiological, biochemical investigations, instruments, drugs and clinical problems in dermatology

**Examination pattern**

Examiners must be the senior faculty members recognized by the University and MCI in the specialty of Dermatology, Venereology and Leprosy

Two External examiners

Two Internal examiners

**MARKS QUALIFYING FOR A PASS**

<b>Marks qualifying for a pass</b>	<b>Maximum marks</b>	<b>Qualifying for a pass 50% marks</b>
Theory examination	400	200
Practical including clinical and Viva voice examination	300	150

A student shall secure not less than 50 % marks in each head of passing, which include 1.Theory 2.Practical including clinical and viva voce examination.

\* “The postgraduate medical students are required to pass theory and practical examinations separately. An examinee should obtain minimum 40% marks in each theory paper and not less than 50% marks cumulatively in all the four papers for Degree examination to be cleared as “Passed” at the said Degree examination”

*\*As per Medical Council of India notification date 03.09.2014 and the same approved in the 28<sup>th</sup> Academic council meet of SRM University held on 23/03/2015.*

## **8.EXAMINATION AND EVALUATION**

### **(1) EXAMINERS**

(a) All the Post Graduate Examiners shall be recognised Post Graduate Teachers holding recognised Post Graduate qualifications in the subject concerned.

(b) For all Post Graduate Examinations, the minimum number of Examiners shall be four, out of which at least two (50%) shall be External Examiners, who shall be invited from other recognised universities from outside the State and other two will be internal examiners for M.D.

(c) Under exceptional circumstances, examinations may be held with 3 (three) examiners provided two of them are external and Medical Council of India is intimated the justification of such action prior to publication of result for approval. Under no circumstances, result shall be published in such cases without the approval of Medical Council of India.

(d) The guidelines regarding appointment of examiners are as follows;-

1. No person shall be appointed as an examiner in any subject unless he/she fulfils the minimum requirements for recognition as a Post Graduate teacher as laid down by the Medical Council of India and has teaching experience of 8 (Eight) years as a Lecturer / Assistant Professor out of which he has not less than 5 (Five) years teaching experience after obtaining Post Graduate degree. For external examiners, he should have

minimum three years experience of examinership for Post Graduate diploma in the concerned subject. Out of internal examiners, one examiner shall be a Professor and Head of Department or Professor.

2. There shall be at least four examiners in each subject at an examination out of which at least 50% (Fifty percent) shall be external examiners. The external examiner who fulfils the condition laid down in clause - 1 above shall ordinarily be invited from another recognised university, from outside the State: provided that in exceptional circumstances examinations may be held with 3 (three) examiners if two of them are external and Medical council of India is intimated with the justification of such examination and the result shall be published in such a case with the approval of Medical council of India.
3. An external examiner may be ordinarily been appointed for not more than three years consecutively. Thereafter he may be reappointed after an interval of two years.
4. The internal examiner in a subject shall not accept external examinership for a college from which external examiner is appointed in his subject.
5. The same set of examiners shall ordinarily be responsible for the written, practical or part of examination.
6. There shall be a Chairman of the Board of paper - setters who shall be an external examiner and shall moderate the question papers.
7. The Head of the Department of the institution concerned shall ordinarily be one of the internal examiners and second internal examiner shall rotate after every two year.

## **(2) Number of candidates**

The maximum number of candidates to be examined in Clinical / practical and Oral on any day shall not exceed six for M.D. degree examination.

### **3) Number of examinations**

The university shall conduct not more than two examinations in a year, for any subject, with an interval of not less than 4 and not more than 6 months between the two examinations.

### **(4) Doctor of Medicine (M.D.) Dermatology, Venereology and Leprosy**

M.D. examination shall consist of Thesis, Theory Papers, and clinical/Practical and Oral examinations.

#### **(a) Thesis**

Every candidate shall carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which shall be written up and submitted in the form of a Thesis.

Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the candidate to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Thesis shall be submitted at least six months before the theoretical 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; and on the acceptance of the thesis by two examiners, the candidate shall appear for the final examination.

#### **(b) Theory**

(i) There shall be four theory papers.

(ii) Out of these one shall be of Basic Medical Sciences and one shall be of recent advances.

(iii) The theory examinations shall be held sufficiently earlier than the Clinical and Practical examination, so that the answer books can be assessed and evaluated before the start of the Clinical/Practical and Oral examination.

### **(c) Clinical / Practical and Oral**

(i) Clinical examination for the subjects in Clinical Sciences shall be conducted to test the knowledge and competence of the candidates for undertaking independent work as a specialist/Teacher, for which candidates shall examine a minimum one long case and two short cases.

(ii) The Oral examination shall be thorough and shall aim at assessing the candidate knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the speciality, which form a part of the examination.

A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical including clinical and viva voce examination.

### **Evaluation of Answer Scripts**

The answer books will be valued by two examiners. One of the two examiners will be from this university and the other will be from any other university. The Average of the two marks secured by the candidate will be taken into account. If the difference between two marks exceeds 20%, the answer scripts shall be valued by the third examiner. The average of the nearest two marks shall be considered as the final mark.

## 9.MODEL QUESTION PAPER

### M.D.DERMATOLOGY

#### PAPER-I

#### APPLIED BASIC SCIENCES

(Max marks = 100)

#### ANATOMY:

(4 x 5= 20 marks)

1. Structure of nerve
2. Sebaceous gland
3. Lymphatic drainage of female genitalia
4. Structure of M. leprae

#### PHYSIOLOGY:

(4x5= 20 marks)

1. Keratinisation
2. Thermoregulation
3. Nerve involvement in leprosy
4. Functions of skin

#### BIOCHEMISTRY:

(3x5= 15 marks)

1. Melanin synthesis pathway
2. Composition of sweat
3. Composition of semen

#### PHARMACOLOGY:

(3 x5=15 marks)

1. Acyclovir Vs. Valacyclovir
2. MB-MDT in leprosy
3. Zidovudine

#### PATHOLOGY:

(3x5= 15 marks)

1. Histopathology of ENL
2. Histopathology of Chancroid
3. HPE of psoriasis

#### MICROBIOLOGY:

(3x 5= 15 marks)

1. Demodex folliculorum
2. Microbiology of M. leprae
3. Draw a neatly labelled diagram of Treponema pallidum

MD.DERMATOLOGY

PAPER II

GENERAL DERMATOLOGY INCLUDING SKIN MANIFESTATIONS OF SYSTEMIC AND VENEREAL DISEASES

(Max marks = 100)

PROBLEM SOLVING QUESTIONS

(3 x 10 = 30 marks)

1. A 60 YEAR OLD male patient came with history of scaling and redness all over the body. He was also having shivering and diarrhea. Give a list of differential diagnosis , management and treatment for this patient.
2. A 20 year old female patient came with history of vaginal discharge for the past one month associated with lower abdominal pain. Give a list of causes that she could be suffering from and a schematic representation of syndromic management
3. A 30 year old patient suffering from leprosy came with fever, joint pain and multiple tender nodules over the trunk. Detail the management for this condition.

WRITE BRIEF NOTES ON

(5 X 6 = 30 marks)

1. Acne venenata
2. Bromhidrosis
3. Dermatitis herpetiformis
4. Erectile dysfunction
5. Lab investigations of gonorrhoea.

LONG ESSAY

(2x 20= 40 marks)

1. Write a detailed account on the clinical features, histopathology , management of Lichen planus
2. Write in detailed the pathogenesis of Systemic sclerosis and about the management.



**MD.DERMATOLOGY**

**PAPER III**

**TROPICAL DERMATOLOGY INCLUDING SOCIAL ASPECTS OF  
VENEREAL DISEASES AND LEPROSY**

**(Max marks = 100)**

**ESSAY QUESTION**

**(2x20= 40 marks)**

1. Write a detailed account on the mother to child transmission of HIV.
2. Write a detailed account on the clinical features, histopathology, investigations and management of mycetoma.

**WRITE BRIEFLY ON**

**(10x6=60 marks)**

1. Disability grading in leprosy
2. Granuloma venereum
3. Verrucous dermatitis
4. Eye involvement in leprosy
5. Post exposure prophylaxis of HIV.
6. Syndromic management of venereal disease
7. Treatment of secondary syphilis
8. Inflammatory Bubo
9. Tuberculide
10. Histoid habitus

**MD.DERMATOLOGY**

**PAPER IV**

**THERAPEUTICS, DERMATOSURGERY AND RECENT ADVANCES IN  
DERMATOLOGY, VENEREOLOGY AND LEPROSY**

**(Max marks = 100)**

**ESSAY QUESTION**

**(2x20=40 marks)**

1. Write a detailed account on the various surgical techniques in vitiligo
2. Give a detailed account of the antiretroviral therapy in management of a child with HIV.

**WRITE BRIEFLY ON**

**(10x6= 60 marks)**

1. Stem cell therapy in dermatology
2. Biologicals in psoriasis
3. Newer anti-leprosy drugs
4. HIV vaccines
5. PCR in leprosy
6. Serology in leprosy
7. ELISA test
8. Intravenous Immunoglobulin's in dermatology
9. Principles of laser hair removal
10. Moh's micrographic surgery- principles and uses

## **10. RECOMMENDED BOOKS& JOURNALS**

1. Text book of dermatology -Rook et al 4 volumes 8<sup>th</sup> Edition Block Well, 2010.
2. IADVL text book of dermatology-RG Valia. 2 volumes 3<sup>rd</sup> Edition Bhalani Publication, 2008.
3. Dermatology – Bologna. 2 volumes 3<sup>rd</sup> Edition Mosby, 2012.
4. Hand book of leprosy Jopling Eh. 5<sup>th</sup> Edition CBS Publication, 2011.
5. Textbook of Leprosy –IAL. 1<sup>st</sup> Edition, Jaypee, 2010.
6. Text book of STD -King and Homes. 4<sup>th</sup> Edition Megraw Hill, 2008.
7. Sexually transmitted diseases and HIV/AIDS – Vinod Sharma. 2<sup>nd</sup> Edition Viva Books, 2009.
8. Sexually transmitted infections- Bhushan Kumar. 2<sup>nd</sup> Elsevier, 2011.
9. Diseases of skin and clinical dermatology- Andrew. 11<sup>th</sup> Edition Saunders, 2011.
10. Histopathology of the skin -Lever WF & Lever GS. 11<sup>th</sup> Edition Lippincott, 2014.
11. Comprehensive dermatologic drug therapy- Wolverton and Wilkin. 3<sup>rd</sup> Edition Saunders, 2012.
12. Paediatric dermatology- Schachner and Hansen. 2volume, 4<sup>th</sup> Edition Mosby, 2011.
13. Skin Pathology- Weedon. 4<sup>th</sup> Edition Churchill Livingstone, 2015.
14. Dermatology in General Medicine – Fitzpatrick 2 volumes, Eighth Edition, Mcgraw Hill.2012.
15. Year Book of Dermatology And Dermatological Surgery – James Q. Del Rosso, Do, Faocd, Mosby.2012

## JOURNALS

1. International journal of dermatology
2. Journal of American academy of dermatology
3. Indian journal of dermatology
4. Indian journal of dermatology, Venereology and leprosy
5. International journal of STD and AIDS
6. Indian Journal of Sexually transmitted diseases
7. Archives of Dermatology
8. British Journal of dermatology
9. Acta dermato- venereologists
10. Journals of investigative dermatology
11. Dermatology clinics.

*Try not to become a man of success only rather  
Try to become a man of value  
- Albert Einstein*