

**SYLLABUS FOR**  
**M.D. DERMATOLOGY, VENEROLOGY AND LEPROSY**

# SYLLABUS FOR M.D. DERMATOLOGY

## Peramble

A Postgraduate Specialist having undergone the required training should be able to recognize the health needs of the community, should be competent to handle effectively medical problem and should be aware of the recent advances pertaining to his speciality. The PG student should acquire the basis skills in teaching of medical / para – medical students. He / She is also expected to know the principles of research methodology and modes of consulting library.

## Programme Objectives

At the end of postgraduate training the student should be able to :-

1. Practice his speciality ethically
2. Demonstrate sufficient understanding of basic sciences related to his speciality
3. Diagnose and manage majority of conditions in his speciality (clinically and with the help of relevant investigations)
4. Plan and advise measures for the prevention and rehabilitation of patients belonging to his speciality.
5. Play the assigned role in the implementation of National Health programmes
6. Demonstrate Competence in basic concepts or research methodology
7. Develop good teaching skills.

## Specific learning Objectives

- a) **Theoretical Knowledge** : A student should have fair knowledge of basic sciences (Anatomy, Physiology, Biochemistry, Microbiology, Pathology & Pharmacology) as applied to his speciality. He / She should acquire in – depth knowledge of his subject including recent advances. He should be fully conversant with the bedside procedures (Diagnostics & Therapeutic) and having knowledge of latest diagnostics and therapeutics available.
- b) **Clinical / Practical Skills** : A student should be expert in good history taking, physical examination, providing basic life support and advanced cardiac life support, common procedures like FNAC, Biopsy, aspiration from serous cavities, lumbar puncture etc. He / She should be able to choose the required investigations.

- c) Research: He / She should know the basic concepts of research methodology, plan a research project and should know how to consult library. Basic knowledge of statistics is also required.
- d) **Teaching:** Should learn the basic methodology of teaching and develop competence in teaching medical / paramedical students.

## **Post Graduate Training**

Didactic lectures are of least importance; seminars, journal clubs, symposia, reviews and guest lectures should get priority for theoretical knowledge. Beside teaching, grand rounds, interactive group discussions and clinical demonstration should be the hallmark of clinical / practical learning. Student should have hand – on training in performing various procedures (medical / Surgical concerning his subject) and ability to interpret various tests / investigations. Exposure to newer specialized diagnostic / therapeutic procedures concerning his subject should be given.

## **Clinical Meeting**

There should be an intra – and inter – departmental meetings for discussing the 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. They should be entered in Log book and signed by the authorized teacher and HOD.

Thesis writing :            Thesis writing is compulsory

Presentation / Publication of papers in conferences will be desirable

Teaching : Each PG student will be required to teach undergraduate (Clinical demonstration) at least 20 sessions

## TRAINING PROGRAMME

### Post Graduate Examinations

#### Theory Paper

1. Essay	2 X 20	-	40	
2. Short Notes	6 X 10	-	60	
<b>Total</b>	-	<b>100 X 3 = 300</b>		<b>Min to Pass – 150</b>

#### Clinical

One Long Case (Dermatology),  
Two Short Cases (1 each from Venereology and Leprosy) and 10 spotter

1. Long Case	1 X 80	-	80	
2. Short Cases	2 X 40	-	80	
3. Spotters	10 X 4	-	40	
<b>Total</b>	-	<b>200</b>		<b>Min to pass 100</b>

## Orals

Includes orals, slides and evaluation of log book records

1. Viva – Voce	-	60
2. Slides (4 X 5)	-	20
3. Log Book	-	20
<b>Total</b>	-	<b>100</b>

## SCHEME OF EXAMINATION

### Part – I

Written Examination (at the end one year of study)

<b>Theory</b>	<b>Title</b>	<b>duration</b>	<b>Maxmium</b>
paper I	Applied Basic sciences	3 hrs	100

### Marks qualifying for pass

50 % of marks in theory examination - 50/ 100

### Part II (at the end of Third year)

<b>Theory</b>	<b>Title</b>	<b>duration</b>	<b>Maxmium</b>
Paper I	general & tropical dermatology including virology, leprosy and their social public health and preventive aspects	3	100
Paper II	dermatology including skin manifestation of sistamic diseas and therapeutic	3	100

**Critiriay for pass**

	<b>Max</b>	<b>min</b>
1. Theory	300	150
2. Clinical	200	100
3. Viva – voce	100	--
4. Aggregate of 2 & 3	300	150
<b>Total 600</b>		

**Clinical / Practical**

3 – 4 Clinical cases interpretation of Data, Instruments, Clinical problems, radiological and biochemical investigations, slides, X – rays etc.

**Viva – Voce**

Due weight age should be given to Log Book Records and day – to day observation during the training.

**Course Contents (Components of curriculum) :** No limit can be fixed and no fixed number of topics can be prescribed as course contents. He is expected to know his subject in depth, however, emphasis should be on the diseases / health problems most prevalent in that area. Knowledge of recent advances and basic sciences as applicable to his / her speciality should get high priority. Competence in surgical skills required for the speciality (actual hand on training) must be ensured.

**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
- HLA system
- Immunoglobulins
- Cytokines and chemokines
- Lymphocytes, neutrophils, eosinophils, basophils and mast cells
- Complement system
- Hypersensitivity and allergy
- Cutaneous carcinogenesis (Chemical, viral & radiation)

## **CLINICAL DERMATOLOGY**

- Epidemiology of skin disease
- Genetics and genodermatoses
- The neonate
- Naevi and other developmental defects
- Disorders of keratinisation
- Psoriasis
- Pruritis
- Urticaria and Mastocytosis
- Eczema, Lichenification, Pruritis and Erythroderma
- Atopic Dermatitis
- Contact Dermatitis : Irritant
  
- Contact Dermatitis : Allergic
- Occupational Dermatoses
- Mechanical and Thermal Injury

- Sports dermatology and skin problems in Warfield
- Cutaneous Photobiology
- Bacterial infections
- Mycobacterial infections
- Virus infections and prions and the skin
- HIV and the skin
- Mycology
- Parasitic Worms and Protozoa
- Diseases caused by Arthropods and other noxious Animals
- Genetic Blistering Diseases
- Immunobullous Diseases
- Lichen Planus and Lichenoid Disorders
- Disorders of the Sebaceous Glands
- Rosacea, Perioral Dermatitis and Similar Dermatoses, Flushing and Flushing syndromes
- Disorders of Sweat Glands
- Disorders of connective Tissue
- Subcutaneous Fat
- Diseases of the Veins and Arteries : Leg Ulcers
- Disorders of Lymphatic Vessels
- Purpural and Microvascular Occlusion
- Vasculitis, Neutrophilic Dermatoses and related disorders
- The ' Connective Tissue Diseases'
- Non – Melanoma Skin Cancer and other Epidermal Skin Tumours
- Tumours of the Skin Appendages
- Lentigos, Melanocytic Naevi and Melanoma
- Histiocytoses
- Soft – Tissue Tumours and Tumour – like Conditions
- Cutaneous Lymphomas and Lymphocytic infiltrates
- Disorders of skin colour
- Metabolic and Nutritional Disorders
- Necrobiotic Disorders
- Sarcoidosis
- Systemic Disease and the skin
- The skin and the Nervous System
- Psychocutaneous Disorders
- Disorders of Nails
- Disorder of Hair

- The Oral Cavity and Lips
- The Breast
  
- The Genital, Perianal and umbilical Regions
- General Aspects of Treatment
- Topical Therapy
- Systemic Therapy
- Drug Reactions, Cutaneous manifestations of Drug Abuse, Cutaneous reactions to Cytokines and Growth Factors
- Erythema Multiforme, Stevens – Johnson Syndrome and Toxic Epidermal Necrolysis
- Dermatological surgery
- Lasers and Flashlamps in the Treatment of Skin Disorders
- Radiotherapy and Reactions to Ionizing Radiation
- Minimally invasive Treatments and procedures for Ageing Skin.

## **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
  
- Therapeutic aspects including newer drugs
- Immunotherapy
- Disabilities, deformities and Rehabilitation
- Prevention, education and counseling
- National Leprosy Control and Elimination Programme

## **VENEREOLGY**

- Clinical approach to the patient of sexually transmitted disease
  - Anatomy of Male & Female Genitalia
  - Epidemiological aspects of STDs
  - Viral STD including HIV, Herpes, HPV, Molluscum Contagiosum, EBV, etc
  - Bacterial STDs; Syphilis, Gonorrhoea, Chancroid, Donovanosis.
  - Chlamydial infections; Lymphogranuloma Venereum, Urethritis, Cervicitis,
  - NGU, Nonspecific Vaginitis.
  - Fungal infections; Candidiasis
  - Protozoa; Trichomoniasis
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- Ectoparasite : Scabies, Pediculosis, Infestation
  - Syndromic Management of STDs
  - STDs in Reproductive health & pediatric
  - STDs & HIV
  - Prevention, Counselling & Educations of different STDs including HIV
  - National Control Programmes of STDs & HIV
  - Medicolegal, Social Aspects of STDs including Psychological & Behavioural
  - Abnormalities in STD patients

## **M.D. DERMATOLOGY**

### **RECOMMENDED LIST OF BOOKS & JOURNALS**

#### **BOOKS RECOMMENDED (LATEST EDITIONS)**

1. Rook et al Text Book of Dermatology 4 Volumes (Fifth Edition)
2. Andrew's Diseases of the skin – Clinical Dermatology (English Edition)
3. Fify Patric TB et al : Dermatoogy in General Medicine 2 Volumes (Third Edition)
4. Demis DJ : Clinical Dermatology : Five Volumes ( ) Ed. 12)
5. Moschella SL et al : Dermatology (ED 3)
6. Brycenson et al : Leprosy (Ed.3)
7. Lever WF & Lever GS : histopathology of the skin (Ed.7)
8. Jpling EH. Hand Book of Leprosy ELBS
9. Maddin S : Current Dermatologic Therapy

10. Dharmendra : Leprosy 2 Volumes
11. Provost TT and Farmer ER : Current Therapy in Dermatology
12. Shelley WB & Shelley ED : Advances Dermatologic Therapy
13. Wolverton and Wilkin : Systemic Drugs for Skin Diseases.
14. Thody AZ and Freedmann : Scientific Basis of Dermatology
15. Braverman : Skin signs Systemic Diseases
16. Rook and Dawber : Diseases of the Hair and Scalp
17. Caterall : Sexually Transmitted Diseases.

## **JOURNALS**

Archives of Dermatology

British Journal of Dermatology

Journal of American Academy of Dermatology

International Journal of Dermatology

Aeta Dermato – Venereologica

Journal of Investigative Dermatology

Degree of Doctor of Medicine (M.D)

# **DERMATOLOGY**

## **PART – I – APPLIED BASIC SCIENCES**

### **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, barrier function and thermoregulation
- Biology of eccrine and apocrine sweat glands Biology of melanocytes and melanin formation
- 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 and metabolism
- Role Extracellular matrix metalloproteinases in connective tissue remodeling
- Innate immunity skin
- Immunologic aspects of epidermis / Skin – An immunologic barrier
- HLA system
- Immunoglobulins
- Cytokines and chemokines
- Lymphocytes, neutrophils, eosinophils, basophils and mast cells
- Complement System
- Hypersensitivity and allergy / DNA repair

- Cutaneous carcinogenesis (chemical, viral & radiation)
- Photo immunology
- 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 histopathologic diagnosis of skin diseases and special techniques such as immunofluorescence, immunoperoxidase and other related techniques.
- Topical and systemic therapy pertaining to Dermatology, Venereology and leprosy.

## **M.D. DERMATOLOGY SYLLABUS**

General medicine in relation to the speciality

Disease of metabolic origin

Disease of Endocrine System

Avitaminosis

Exanthemata

Blood Dyscrasias

Diseases of Blood Vessels

Diseases of Reticulo – Endothelial System

Kala Azar and Tropical fever with rashes

Yaws

Pigmentary disorders

Sarcoidosis

Tuberculosis

Collagen Disorders (Connective Tissue Disorders)

Genetic disorders of medicine with cutaneous lesions and other related systemic diseases

## **SKIN DISEASES**

### **Introductory :**

Skin diseases in relation to Society

Classification of skin diseases

General Symptomatology

General Etiology

General Pathology

General Diagnosis

General prognosis

General Therapeutics

Anatomy and Histology of the skin

Growth and replacement of the skin

Differences in the character of the skin in different regions

Skin Pigmentation

Cutaneous glands

Hair and Nail Growth

Blood Supply of the skin

Lymphatics of the skin

Structure of the skin

Chemistry, Physiology and Functional Pathology of the skin, Bio chemistry of Components of the

### **Skin : Physiology :**

Proteins

Permcability

Fats

Epidermal Secretion

Carbohydrates

Respiration

Electrolytes

Melanin Pigmentation

Water

Secretion

Enzymes

Perspiration

Vitamins

Heat regulation

Protection

Topography of the skin

Nutrition of the skin

Hormones

Structural and Functional Pathology

Inflammation of the skin

Vascular response

Lymphatic reactions

Regenerations

Pathology, Bacteriology, Parasitology, Mycology etc

Pathological changes of the epidermi

Pathological changes of the corium

Cells of the corium

Pathological changes of dermal appendages

Lesions of the skin associated with bacterial infection

Identification of pathogenic bacteria

Experimental transmission of skin diseases

Skin diseases in animals communicable to man

Host – Parasite relationship

Influence of bacteria upon healing

Autogenous disinfection of the skin

Parasitology in relation to dermatology

Phylum Protozoa

Phylum nemethelminthes

Phylum Arthropoda

Oder of Anoplura of lice

Order o Acarina

Order of Diptera

Order Hemiptera

Order Siphonaptera, etc.,

Mycology in relation to Dermatology

Dermatophytes

Parasitism of Dermatophytes

Cultivation of the fungus

Moniliasis

Systemic Mycosis

Allergy and dermal hypersensitivity of dermatophytes

Diseases of the skin, its appendages, muco – cutaneous surfaces and Mucous membrane:

Acne and Seborrhoeic Dermatitis  
Pruritus (Symptomatic and essential, Psychogenic implication)  
Eczematous Dermatitis  
Urticaria, Toxic Erythemas and Drug Eruptions  
Collagen – diseases of the skin  
Vesiculo – Bullous disorders  
Occupational dermatosis  
Maculo – Papulo – Squamous diseases  
Pyodermas  
Fungus infections  
Tuberculosis of the skin and allied disorders  
Syphilis

Virus and other infections including venereal diseases other than syphilis  
Diseases due to animal parasites  
Hyperpigmentations Depigmentations and Atrophy  
Congenital (Nevold) anomalies  
Disorders of the mucous membrane  
Diseases of the nails, Hair and other organs relating to the skin  
Diseases due to physical agents  
Benign tumours of the skin  
Metabolic disorders  
Premalignant and malignant tumours

### **Tropical Dermatology including Deficiency Dermatoses :-**

Yaws	Dermatoses due to Vitamin
Leprosy	and nutritional deficiency
Oriental Sore	and excesses

Veldts Sore, Naga Sore	Vitamin A
Ulcus Tropicus	Vitamin B Complex
Dermal Leishmaniasis	Vitamin C
Prickly Heat	Vitamin D
	Vitamin K
	Vitamin E
Treatment	
Topical mediations	
Systematic Medications	
Physical agents	
Heliotherapy	

### **SPECIAL POSTINGS**

I year	Medicine	4 weeks
	HIV	2 weeks
II year	Surgery	2 weeks
	Paediatrics	2 weeks
	Leprosy	2 weeks
III year	HIV	2 weeks
	Leprosy	2 weeks

	<b>8 to 9 a.m.</b>	<b>8 a.m. to 2 p.m.</b>	<b>10 to 11 a.m.</b>	<b>11.30 a.m. to 1 p.m.</b>
<b>Monday</b>	Theory class	OPD	Ward rounds	
<b>Tuesday</b>	Theory class	OPD	Ward rounds	Hstopathology / Journal Club
<b>Wednesday</b>	Theory class	OPD	Ward rounds	
<b>Thursday</b>	Theory class	OPD	Ward rounds	
<b>Friday</b>	Theory class	OPD	Ward rounds	Case discussion / Thesis review
<b>Saturday</b>	Theory class	OPD	Ward rounds	Test

