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

Peramblle

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 basic 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 beside 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, lumber 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

Total - 100 X 3 = 300 Min to Pass – 150

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

Total - 200 Min to pass 100
Orals

Includes orals, slides and evaluation of log book records

1. Viva – Voce - 60
2. Slides (4 X 5) - 20
3. Log Book - 20

Total - 100

SCHEME OF EXAMINATION

Part – I
Written Examination (at the end one year of study)

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<tr>
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<td>Applied Basic sciences</td>
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Marks qualifying for pass

50 % of marks in theory examination - 50/100

Part II (at the end of Third year)

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<tr>
<td>Paper I</td>
<td>general &amp; tropical dermatology including virology, leprosy and their social public heath and preventive aspects</td>
<td>3</td>
<td>100</td>
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<tr>
<td>Paper II</td>
<td>dermatology including skin manifestation of sistamic disees and therapeutic</td>
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<tr>
<td>3. Viva – voce</td>
<td>100</td>
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</tr>
<tr>
<td>4. Aggregate of 2 &amp; 3</td>
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<td>150</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>600</strong></td>
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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 arachadonic 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, Mircobiology 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
VENEREOLOGY

- 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
- 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 etal Text Book of Dermatology 4 Volumes (Fifth Edition)
2. Andrew’s Diseases of the skin – Clinical Dermatology (English Edition)
4. Demis DJ : Clinical Dermatology : Five Volumes () Ed. 12)
5. Moschella SL etal : Dermatology (ED 3)
6. Brycenson etal : 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
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 – Venereologics
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
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• Lipids of epidermis and sebaceous glands
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• 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
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• 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
Pigmentory 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
Order 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, mucous – cutaneous surfaces and Mucous membrane:
Acone and Seborrhoeic Dermatosis
Pruritus (Symptomatic and essential, Psychogenic implication)
Eczematous Dermatosis
Urticaria, Toxic Erythèmes 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 then syphilis
Diseases due to animal parasites
Hyperpigmentation Depigmentation and Atrophy
Congential (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 nutrional 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
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<tr>
<td>Tuesday</td>
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<td>Hsopathology / Journal Club</td>
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