

DEPARTMENT OF Dermatology Venereology Leprosy

Various academic teaching learning activities during course of post graduate study is in the following areas.

Academic sphere: This would include punctuality and sincerity in attending P.G. academic activity. It will include the record of case presentation, assignment, group discussion, journal club presentation, basic sciences lectures, interdisciplinary integrated lectures, death review meeting, clinico-pathological and clinico-radiological meeting etc.

studentare supposed to record the academic activity in the log book where you have activity contributed (you have presented a case, review article from the journal, death review case etc.) and also your presence in a particular session.

studentare supposed to get signature of the Post-graduate teacher about your regularity in attending the postgraduate study program every month.

- A. **Clinical postings:** To get holistic training you would be rotated in different specialty units as per the protocol of the department and the institution. students are supposed to keep record of these postings.
- B. **Community programs**: As part of our commitment to the community, you are supposed to actively participate in the community programs which are designed by the department and / or institution, like attending multi-diagnostic camps, school health check up program etc.Studnets have to keep record of your attendance in these programs in your log book.
- C. Dissertation: For degree course, dissertation project work is an important milestone. Students are supposed to record your dissertation work in step-wise manner and get signature of the guide. <u>The purpose of dissertation is to give insight in research methodology and to</u> <u>record evidence-based scientific observations.</u> The dissertation research work has to be in prospective manner and the quantum of work done every three monthly should be recorded.
- D. Skill development: We expect student to develop skills in relation with your specialty. The department has enlisted certain procedures to be learnt in each year of your training. Students have to record this in your logbook. Apart from your specialty-related skills, we would wish you to acquire certain basic skills like CPR, endotracheal intubation etc. student would be posted in casualty and critical care unit for this purpose. Recording details of all these is of utmost importance.
- E. Recent Advances and CME:Student need to keep abreast with recent advances in the medical field. faculty will <u>encourage student to attend CME programs and conferences</u>. faculty also would wish student<u>to present scientific paper in your specialty or related-specialty</u>. Please <u>record such events</u>.

- F. **Personal achievements**: Please record personal achievement in form of award or prizes during your tenure in the department. Please <u>furnish the proof of your achievement to the departmental head</u> who in turn would acknowledge it in this logbook.
- G. **Teaching and training:**<u>As a part of duty, resident doctors have to teach and train</u> <u>undergraduate medical students as well as paramedical staff</u>. Student's contribution has to be recorded.
- H. **Formal evaluation:**Department has developed a system for your continuous evaluation which would be in a non-formal manner. Formal evaluation will also be done according to semester / year. The record of which will be kept in the record book.

DVL - P.G Curriculum

SUBJECT CURRICULUM

Postgraduate Courses in Dermatology Venereology Leprosy

M.D. in Dermatology Venereology Leprosy

<u>Goals</u>

The postgraduate training course would be trained a MBBS doctor who will:

- Practice efficiently and effectively, backed by scientific knowledge and skill base
- Exercise empathy and a caring attitude and maintain high ethical standards
- Continue to evince keen interest in continuing education in the specialty irrespective of whether he is in a teaching institution or is the specialty
- Be a motivated 'teacher' defined as specialist keen to share his knowledge and skill with a colleague or a junior or any learner

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 inDermatology, 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 insexually 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 professionalobligations 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 developcompetence in teaching medical/paramedical students.
 - Should have acquired Problem Solving skills

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, dermoepidermaljunction, 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 asimmunofluorescence, immunoperoxidase and other related techniques.
- Describe the basics of cutaneous bacteriology, mycology, virology, parasitologyand host resistance.
- Describe papulosqamous 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 therapyincluding blood transfusion in dermatological conditions.
- Describe common dermatological malignancies in the country and theirmanagement 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 thehistopathologic diagnosis of skin diseases and special techniques such asimmuno-fluorescence, immuno-peroxidase and other related techniques.
- Acquire knowledge of the basics of laser operation and precautions which needsto 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, stablein 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 upinformation, 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, bloodsampling, fluid electrolytes therapy, plerual 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 identifysocial, economic, environmental and emotional determinants in a given
- Recognize conditions that may be outside the area of his specialty/competenceand refer them to the proper specialist.case and take them into account for planning therapeutic measures.

Dermatology, Venereology and Leprosy, HIV/AIDS Skills

The student should:

- skills in history taking, physical examination, diagnosis and managementof 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 dermatologiccondition.
- Be competent to manage dermatologic emergencies like angioedema, toxicepidernmal necrolysis (TEN), Stevens-Johnson syndrome (SJS), pemphigus, drugreaction 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 advice 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/mortalitydata 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 reachto 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 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 punchgrafting 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 laboratoryaids related with venereology.
- 3. Able to perform dark ground illumination, gram stain, Bubo aspiration and tissuesmear.
- 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 forsurgery or rehabilitation. Should able to manage pediatric cases with skin diseases.

Syllabus

Course contents

Topics related to allied basic sciences

- > The structure, functions and development of human skin.
- Ultrastructural aspects of epidermis, epidermal appendages, dermo-epidermaljunction, 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 andground 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 acidmetabolism.

- 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 hostresistance.
- 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 diagnosisof skin diseases and special techniques such as immunofluorescence, immunoperoxidase and other related techniques.

<u>Clinical dermatology</u>

- 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 niditus.
- > 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 tumors

- > 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 ofmelanocytes, dysplastic melanocytic nevi, cutaneous malignant melanoma.

Inflammatory and neoplastic disorders of the dermis

- > Acute febrile neutrophilic dermatosis (Sweet's syndrome)
- Erythema elevatumdiutinum
- Cutaneous eosinophilic diseases
- Granuloma faciale
- Pyoderma grangrenosum
- > 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 perforansserpiginosa 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 HIVinfection
- 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, photochemotherapy

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 diffusumuniversale)
- 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 Reticulohisticytosis

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 GangrenousCellulitis
- Gram-Negative Coccal and bacillary infections
- ➢ Bartonellosis
- Miscellaneous bacterial infections with cutaneous manifestations
- > Tuberculosis and other myopacterial infections
- > Actinomycosis, Necardiosis, and Actinomycetoma
- Lyme Borreliosis
- Kawasaki Disease

Fungal diseases with cutaneous involvement

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

Viral and ricketisial 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
- Milluscum Contagiosum
- Miller's Nodules
- > Warts
- > Human Retroviral Disease: Human T-Lymphotropic Virusviruses

Therapeutics

Topical therapy

- > Pharmacokinetics principles intopical 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, Warttherapies, Topical Retinoids, Topical Antibiotics, Topical Anti-fungal Agents, Sun-protective Agents, Keratolytic Agents, Topical Cytotoxic Agents, Cosmeticsand Skin care in practice.

Systemic therapy

Systemic glucocorticoids, Sulfones, Aminoquinolines, Cytotoxic andAntimetabolic Agents, Oral Retinoids, Antihistamines, Antibiotics, AntiviralDrugs, Oral Antifungal Agents, Immunosuppressive and Immunomodulatorydrugs, Thalidomide, photochemotherapy and photo-therpay, 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), Molluscumcontagiosum, 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 behaviouralabnormalities 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/ Learning Activities

- Clinical Case discussion -Once a week
- Journal Club Once a week
- Subject Seminar Once a week
- Mortality Meeting Once a month
- Clinico-pathology meeting once a month
- A candidate 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 not absent himself/herself from work without valid reasons.
- A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills outlined is given below. Depending on the facilities available, any or all of these methods may be employed. However, the activities for which details are given mandatory.

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. These topics may preferable taken up in the first few weeks of the 1st year

- Didactic Lectures: Recommended for selected common topics for post graduate students of all specialties.
- Integrated Lectures: These are recommended to be taken by multidisciplinary teams for selected topics, eg, Jaundice. Diabetes mellitus, Thyroid etc.
- 2. Journal Club:Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the log book relevant details. Further, every candidate must make a presentation from the allotted journal(s), selected articles at least four times a year and a total of 12 presentation in three years.
- 3. Subject Seminar: Recommended to be held once every 7 days. All the PG students are expected to attend actively participate in discussion and enter in the log book relevant details. Further, every candidate must present on selected topics at least four times a year and total of 12 seminar presentations in three years.
- 4. **Student Symposium :**Recommended as an optional multi disciplinary programmed the evaluation may be similar to that described for subject seminar.
- 5. **Ward Rounds:** Ward rounds may be service or teaching rounds.
 - Service Rounds: Postgraduate students and Interns should do every day for the care of the patients. Newly admitted patients should be worked up by the PGs and presented to the seniors the following day.
 - Teaching Rounds: Every unit should have 'grand rounds' for teaching purpose. A diary should be maintained for day to day activities by the students.
- 6. **Clinical Case Presentations**: Minimum of 5 cases to be presented by every postgraduate student each year
- 7. **Clinico-Pathological**Conference: Recommended once a month for all post graduatestudents. Presentation is done by rotation. If cases are not available due to lack of clinicalpostmortems, it could be supplemented by published CPCs.
- 8. **Inter Departmental Meetings:**Strongly recommended particularly with department of pathology and Radio-Diagnosis at least once a week. These meeting should be attended by post graduate students and relevant entries must be made in the Log book.
 - Pathology: A dozen interesting cases may be chosen and presented by the post graduate students and discussed by them. The staff of Pathology department would then show the slides and present final diagnosis. In the sessions the advance immuno-histo-chemical techniques, the burgeoning markers other recent developments can be discussed.
 - > Radiodiagnosis: Interesting cases and imaging modalities should be discussed

- 9. **Continuing Medical Education Programmes (CME):** At least two CME programmes should be attended by each student during the MD programme.
- 10. Microbiology:Collection of specimen, AFB staining, Culture techniques and interpretation
- 11. Work in laboratory
- 12. **Teaching Skills:** Post graduate students must teach under graduate students (Eg. Medical, Nursing) by taking demonstrations, bedsides clinics, tutorials, lecture etc. Assessment ismade using a checklist by faculty as well students. Record of their participation be kept in Log book. Training of post graduate students in educational science and technology is recommended.
- 13. **Continuing Medical Education Programmes (CME) :**Recommended that at least 2 statelevel CME Programme should be attend by each student in 3 years.
- 14. **Conferences:**Attending conference is optional. However, it is encouraged. As per the MCI guidelines candidate should present one poster, one paper in state / or national conference.

Rotation Postings

proposed Clinical / Practical Training: Rotation postings in other departments

S. No	Posting	Period
1	Medicine	2 Week
2	Surgery	2 Week
3	Obstetrics & Gynecology	2 Week

Monitoring Learning Progress:

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only also helps teachers to evaluate students, but also students to evaluate themselves. The monitoring be done by the staff of the department based on participation of students in various teaching/learning activities. It may be structured and assessment be done using checklists that assess various aspects. Checklist is given in chapter IV.

The learning out comes; to be assessed should included (i) Personal attitude (ii) Acquisition of knowledge (iii) Clinical and operative skills (iv)Teaching skills and (v) Dissertations

Personal Attitude: The essential items are

- Caring attitude
- Initiative
- Organizational ability
- Potential to cope with stressful situation and undertake responsibility
- Trust worthiness and reliability
- To understand and communicate intelligible with patients and others

- To behave in a manner which establishes professional relationship with patients and colleagues
- Ability to work it team
- A critical enquiring approach to the acquisition of knowledge. The methods used mainly consisted of observation. It is appreciated that these terms requires a degree of subjective assessment by the guide, supervisors and peers.

I. Acquisition of knowledge:

- The methods used comprise of 'Log book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentation are made to be recorded. The log book should periodically be validated by supervisors. Some of the activities are listed. The list is not complete; Institution may include additional activities, if so, desired.
- Journal Review Meeting (Journal Club): The ability to do literature search, in depth study, presentation skills, and use audio-visual aids are to be assessed.
- Seminars / Symposia: The topics should be assigned to the students well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio-visual aids are to be assessed
- **Clinico-Pathological Conferences:** This should be a multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach..
- Medical Audit:Periodic morbidity and mortality meeting be held. Attendance and participation in these must be insisted upon. This may not be included in assessment

II. Clinical Skills :

- **Day to day work:**Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidate's sincerity and punctuality, analytical ability and communication.
- **Clinical Meetings:**Candidate should periodically present cases to his peers and faculty members.)
- **Clinical and Procedural skills:**The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation

III. Teaching skills :

• Candidate should be encouraged to teach undergraduate medical students and paramedical students, if any. This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students.

IV. **Dissertation in the Department:**

• Periodic presentations are to be made in the department. Initially the topic selected is to be presented before submission to the University for registration, again before finalization for critical evaluation and another before final submission of the complete works.

V. **Periodic tests :**

• The departments may conduct three tests, two of them be annual tests, one at the end of first year and other in the second year. The third test may be held three months before the final examination. The tests may include written papers Practical / clinical and Viva voce.

VI. Work diary / Log book :

• Every candidate shall maintain a work diary and record his/her participation in the training Programmes conducted by the department such as journals reviews, seminars etc special mention may be made of the presentation by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

VII. Records :

• Records logbooks and marks obtained in tests will be maintained by the student.

EXAMINATION PATTERN

Internal evaluation of P.G. student's performance during three years.

I year of M.D. Students:

Assessment of student with multiple choice questions multiple short notes covering wide range of topics and practical examination with attention to history taking. Clinical skills, relevant diagnostics and therapeutic plan ascertained. Suggested time of evaluation is after first six months and at the end of the first year.

II year of M.D. Students;

Students should be evaluated at the end of the II year on the theory and practical examination along with one faculty from General Medicine. For other specialties with short rotation of one month may evaluate the candidate for comprehension of the subject and clinical skills.

III year of M.D. Students:

P.G.'s should be evaluated at the beginning of his 3rd year training by panel of senior postgraduate teachers. Suggested pattern of assessment with two type theory papers and multiple choice questions (200)- clinical skills, diagnostic and therapeutic skills evaluated intermittently by unit faculties.

Mock examination suggested -3 to 4 months prior to final University exam should consist of two question papers each 3 hours duration, and clinical and viva voce similar to university examination under the supervision of seminar faculty.

Main Purpose of periodic examination and accountability is to ensure clinical expertise of students with practical and communication skills and balance broader concept of diagnostic and therapeutic challenges.

Dissertation:

- 1. Every candidate pursuing MD/MS degree course is require to carry out work on a selected research project under the guidance of a recognized post graduate teacher. The results of such a work shall be submitted in the form of a dissertation
- 2. The dissertation is aimed to train a post graduate student in research methods and techniques. It includes identification of a problem formulation of a hypothesis, search and review of literature, collection of data, critical analysis, comparison of results and drawing conclusions.
- 3. Every candidate shall submit to the Registrar (Academic) of VNSGU in the prescribed proforma, a synopsis containing particulars of proposed dissertation work six months from the date of commencement of the course on or before the dates notified by the University, The synopsis shall be through the proper channel.
- 4. Such synopsis will be reviewed and the dissertation topic will be registered by the University. No change in the dissertation topic or guide shall be made without prior approval of the University.
- 5. The dissertation should be written under the following headings:
 - i. Introduction
 - ii. Aims or Objectives of study
 - iii. Review of Literature
 - iv. Material of Methods
 - v. Results
 - vi. Discussion

- vii. Conclusion
- viii. Summary
- ix. References (Vancouver style)
- x. Tables
- xi. Annexures
- 6. The written text dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.29") and bound properly. Spiral binding should be avoided. The dissertation shall certified by the guide, head of the department and head of the Institution.
- 7. Four copies of dissertation thus prepared shall be submitted to the Registrar (Evaluation), six months before final examination on or before the dates notified by the University.
- 8. The dissertation shall be valued by examiners appointed by the University. Approval or dissertation work is an essential precondition for a candidate to appear in the University examination.

Scheme of Examination:

Candidate will be allowed to appear for examination only if attendance (Minimum 80%) and internal assessment are satisfactory and dissertation is accepted.

Paper	Course Content			
Paper-1	Basic sciences, anatomy, physiology, biochemistry, pathology etc.			
	in relation to the Deramtology, STD, and leprosy			
Paper-II	Principles of dermatology diagnosis and therapeutics			
Paper -III	Venereology (STD) and Leprology, Principals of diagnosis and therapeutics			
Paper IV	Dermatology in internal medicine, including applied clinical aspects, therapeutics, Pathology, immunopathology, bacteriology and recent advances			

Theory- 4 papers of 100 marks each [400 marks]

Practical – 600 marks, includes:

- Long case
- Short case
- Spot case
- Table viva*

* 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.

Proposed P.G Teaching Time Table

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8:30 to 9:30 am	Ward round and case discussion					
9:30 to 1:00 pm	OPD & Spot cases discussion					
1:00 to 2:00 pm	Lunch Break					
2:00 to 3:00 pm	Long case	Journal	Seminar	HP - Slide	Lecture]
	Discussion	reading	presentation	Discussion	Lecture	
3:00 to 4:00 pm	Thesis		Clinopatho Meet –	Group	Short case	
	review		Once/ month	Discussion	Discussion	
4:00 to 5:00 pm	OPD, Tutorials, Dermato-surgery & LASER procedures					

S. No.	Academic Activity	Frequency	Day	
1	Case Presentation	Once / week	Monday/ Friday	
2	Thesis review	Once/ month	Monday	
3	Journal Club	Once/ Week	Tuesday	
4	Seminar	Once/ Week	Wednesday	
5	Clinico-pathology meet	Once / month	Wednesday	
6	Group Discussion & HPE Discussion	Once/ week	Thursday	
7	Lecture for P.G.'s	Once/Week	Friday	
8	Tutorial	Once/ Week	Tuesday/ Thursday	

FORMATIVE ASSESSMENT DURING VARIOUS CLINICAL TERMS

FORMATIVE ASSESSMENT DURING 1 ST YEAR RESIDENCY				
Part 'A': (Total marks 50)	Marks Awarded	Marks allotted		
1. Formal periodic case presentations		25.0		
2. Day-to-day clinical work:A. Patient Care:		5.0		
 (i) Case work-up and academic discussion (ii) Day-to-day care/ Follow-up of pts/ Punctuality/ Responsibility 		5.0 5.0		
(iii) Maintenance of case-sheet & progress recordB. Attitude, behavior and interpersonal relationship:		5.0		
(i) Behavior with patients and relatives(ii) Behavior with seniors/staff/colleagues		5.0 5.0		
Grand Total		50.0		
		Signature of HOI		

FORMATIVE ASSESSMENT DURING 2 ND YEAR RESIDENCY				
Part 'A': (Total marks 50)	Marks Awarded	Marks allotted		
1. Formal periodic case presentations		25.0		
 2. Day-to-day clinical work: A. Patient Care: (i) Punctuality (ii) Case work-up and discussion (iii) Day-to-day care. B. Attitude, behavior and interpersonal relationship: (i) Behavior with patients and relatives (ii) Behavior with seniors/staff/colleagues 		5.0 5.0 5.0 5.0 5.0		
Grand Total		50.0		
		Signature of HOD		

L-FORMATIVE ASSESSMENT DURING VARIOUS CLINICAL TERMS

FORMATIVE ASSESSMENT DURING 3 RD YEAR RESIDENCY			
Part 'A': (Total marks 50)	Marks Awarded	Marks allotted	
1. Formal periodic case presentations		25.0	
 2. Day-to-day clinical work: A. Patient Care: (i) Punctuality (ii) Case work-up and discussion (iii) Day-to-day care. B. Attitude, behavior and interpersonal relationship: (i) Behavior with patients and relatives (ii) Behavior with seniors/staff/colleagues 		5.0 5.0 5.0 5.0 5.0	
Grand Total		50.0	
		Signature of HOD	

CONSOLIDATED SHEET

Residency in Dermatology Venereology & Leprosy Department

Name of PG student:

Posting period: from ______to _____

Particulars	Average/ not satisfactory	Good/ satisfactory	Excellent/ more than satisfactory	Remarks
	1 2 3	456	789	
Journal based/ recent advances learning				
Patient based / Laboratory or skill based learning				
Academic Activities/ CMEs				
Departmental & Interdepartmental learning activity				
Self-directed learning and teaching				
Thesis/ Research work				
Log book maintenance				

Signatureof H.O.D.