

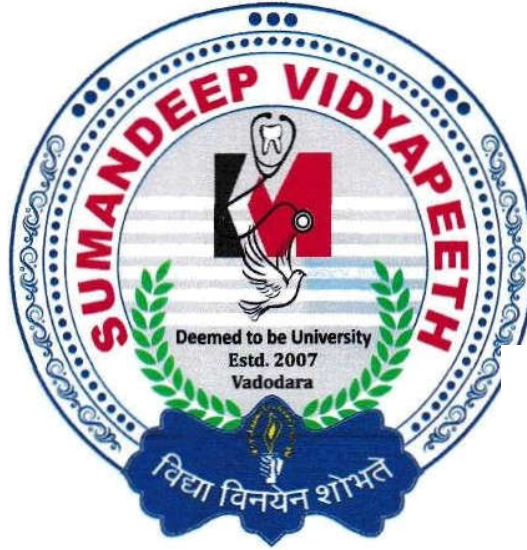
# SUMANDEEP VIDYAPEETH

(Declared as Deemed to be University under Section 3 of the UGC Act 1956)  
Accredited by NAAC with a CGPA of 3.53 out of four-point scale at 'A' Grade  
Category - I deemed to be university under UGC Act - 2018

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## CURRICULUM

Doctor of Medicine  
(M.D.)

DERMATOLOGY, VENEROLOGY &  
LEPROSY



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## **PG CURRICULUM**

### **Programme outcome : MD**

The purpose of MD education is to create specialists who would provide high quality health care and advance the cause of science through research & training. The goal of postgraduate medical education shall be to produce competent specialists and/or Medical teachers.

### **Programme specific outcome : MD**

**POS 1.** Scholars 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.

**POS 2.** Scholars shall have acquired the basic skills in teaching of the medical and paramedical professionals.

**POS 3.** Practice the specialty concerned ethically and in step with the principles of primary health care.

**POS 4.** Demonstrate sufficient knowledge of the basic sciences relevant to the concerned specialty.

**POS 5.** Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physicians and paramedical health workers.

**COURSE OUTCOME (CO):** At the end of 3 years of post graduate training in

Dermatology, Venereology & Leprosy:

1. Student should have knowledge of basic sciences (Anatomy, Physiology, Biochemistry, Microbiology, Pathology and Pharmacology) as applied to dermatology.
2. The student should acquire in-depth knowledge of his subject including recent advances.
3. The student should be fully conversant with the bedside procedures (diagnostic and therapeutic) and having knowledge of latest diagnostics and therapeutics available.
4. Student should have acquired practical and procedural skills related to the subject.
5. Critically evaluate, initiate investigation and clinically manage cases in Dermatology, Venereology and Leprosy with the help of relevant investigations.
6. Should plan and advise measures for the prevention and rehabilitation of patients with various dermatological conditions.
7. Able to ensure the implementation of National Health Programmes, particularly in sexually transmitted diseases (STD) and leprosy.
8. Acquire training skills in research methodology, professionalism, attitude and communication skills, as below.
9. 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.
10. Should be able to practice the specialty of dermatology ethically.
11. Recognize the health needs of patients and carry out professional obligations in keeping with principles of National Health Policy and professional ethics.
12. Teaching skills in the subject
13. Student should learn the basic methodology of teaching and develop competence in teaching medical/paramedical students.
14. Should have acquired Problem Solving skills



## 1. Goal

The goal of MD course in Dermatology is to produce a competent dermatologist who:

- ❖ Recognize the health needs of patients and carries out professional obligations in keeping with principles of National Health Policy and professional ethics;
- ❖ Has acquired the competencies pertaining to dermatology that are required to be practiced in the community and at all levels of health care system;
- ❖ Has acquired skills in effectively communicating with the patient, family & community.
- ❖ Is aware of the contemporary advances and developments in medical sciences as related to dermatology, STD & leprosy.
- ❖ Is oriented to principles of research methodology; and
- ❖ Has acquired skills in educating medical and paramedical professionals.

## 2. Objectives

At the end of the MD course in Dermatology, the student should be able to

- ❖ Recognize the key importance of Skin, STD & leprosy in the context of the health priority of the country;
- ❖ Practice the specialty of dermatology in keeping with the principles of professional ethics;
- ❖ 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;
- ❖ Recognize the importance of growth and development as the foundation of Dermatology; and help each patient realize her/his optimal potential in this regard;
- ❖ Take detailed history, perform full physical examination, local examination & make clinical diagnosis;
- ❖ Perform relevant investigative and therapeutic procedures for the dermatology patient;
- ❖ Interpret important imaging and laboratory results;
- ❖ Diagnose illness based on the analysis of history, physical examination and investigative workup;
- ❖ Plan and deliver comprehensive treatment for illness using principles of rational drug therapy;
- ❖ Plan and advise measures for the prevention of infectious disease and disability;
- ❖ Plan rehabilitation of patients suffering from chronic illness and handicap, and those with special needs;
- ❖ Manage dermatological emergencies efficiently;
- ❖ Provide comprehensive care to normal, 'at risk' and sick patients.



- ❖ Demonstrates skills in documentation of case details, and of morbidity and mortality data relevant to the assigned situation;
- ❖ 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;
- ❖ Develop skills 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;
- ❖ Demonstrate competence in basic concepts of research methodology and epidemiology;
- ❖ Facilitate learning of medical/nursing students, practicing physicians, para-medical health workers and other providers as a teacher-trainer;
- ❖ Play the assigned role in the implementation of national health programmes, especially leprosy, STD & AIDS effectively and responsibly;
- ❖ Organize and supervise the desired managerial and leadership skills;
- ❖ Function as a productive member of a team engaged in health care, research and education;

### 3. Syllabus

General Guidelines - During the training period, efforts should always be made that adequate time is spent in discussing health problems of public health importance in the country.

#### Theory

**Approach to Important Clinical Problems & disorders** (Definition, epidemiology, etio- pathogenesis, presentation, complications, differential diagnosis and treatment)

#### ❖ Skin

- Anatomy, embryogenesis & functions of skin
- Diagnosis & Histopathology
- Molecular biology
- Inflammation & clinical immunology
  - \* Genetics, genodermatosis & skin of neonate
  - \* Pruritus- Pathophysiology, factors affecting, types & management
  - \* Dermatitis- Atopic dermatitis, contact dermatitis- irritant & allergic, acute, subacute & chronic eczema, stasis eczema, lichenification & erythroderma
- Infections-
  - \* Bacterial
    - Gram +ve (impetigo, cellulitis, ecthyma, erysipelas, SSSS, TSS, Anthrax) & G-ve infections, Anaerobic infections, Rickettsial infections
  - \* Viral
    - Herpes virus, human papilloma virus, Hemorrhagic fevers, PR



- Leprosy- Types, reactions, Lab. investigations, management (MDT) & rehabilitation, NLEP
  - Mycology- Superficial & cutaneous, Subcutaneous & deep mycoses
- \* Parasitic, protozoal & arthropodal infection
  - Filariasis
  - Leishmaniasis
  - Larva migrans
  - Scabies
  - Pediculosis
- \* Sexually Transmitted Diseases
  - Syphilis, gonorrhea, NGU, donovanosis, chancroid, LGV, Herpes genitalis, Viral warts- diagnosis, treatment & prevention
  - HIV & AIDS- Cutaneous manifestations, Lab. Diagnosis & management, prevention, syndromic management, NACO guidelines
- Cutaneous photobiology
  - Polymorphic light eruption, actinic prurigo, solar urticaria, chronic actinic dermatitis
- Disorders of keratinization
  - Ichthyosis- congenital & acquired, erythrokeratoderma, PRP, Darier's Dis., Psoriasis
- Disorders of pigmentation
  - Melanogenesis, Hypermelanosis, hypomelanosis, melanocytic nevi, melanoma skin cancer
- Tumours of skin
  - \* Malignant
    - Squamous Cell Carcinoma
    - Basal Cell Carcinoma
  - \* Benign
    - Actinic keratosis
    - Bowen's disease
    - Seborrheic keratosis
    - Keratoacanthoma
    - Pilomatricoma
    - Cylindroma
    - Syringoma
    - Paget's disease
- Bullous disorders
  - \* Congenital- Epidermolysis bullosa- simplex, junctional & dystrophic
  - \* Immunobullous- Pemphigus & its variants, bullous pemphigoid, cicatricial pemphigoid, DH-Basis, clinical presentation, treatment and pulse therapy
- Disorders of sebaceous & sweat glands-
  - Acne & its variants, sebaceous gland disorders, rosacea, hyperhidrosis, miliaria
- Connective tissue disorders
  - Lupus erythematosus- DLE, SLE, systemic sclerosis, MCTD, Dermatomyositis, graft v/s host disease
- Urticaria
  - Types, urticarial vasculitis, angioedema, mastocytosis



- Purpura  
Classification, diagnosis & management
- Vasculitis & Neutrophilic Reactions  
Small, medium & large vessel vasculitis, Sweet's syndrome, pyoderma gangrenosum, Erythema nodosum, Behcet's dis
- Arterial, venous & lymphatic disorders  
Arterial & peripheral ischemic disorders, venous thrombosis & ulceration, lymphedema
- Psychocutaneous disorders  
Trichotillomania, dermatitis artefacta
- Immunological diseases  
Lichen planus, lichenoid disease, sarcoidosis
- Systemic diseases & skin  
Cardiac, renal, GIT, markers of internal malignancy, nervous system
- Ages of men & other dermatoses

#### ♦ Nail

- Structure & function of nail
- Disorders of nail development - Anonychia, pachyonychia
- Nail infections - Paronychia, Onychomycosis
- Dermatoses affecting nails - Psoriasis, Darier's dis., lichen planus, twenty nail dystrophy
- Nail tumours - Koenan's tumour
- Nail surgery - nail biopsy, surgery for ingrowing nail

#### ♦ Hair

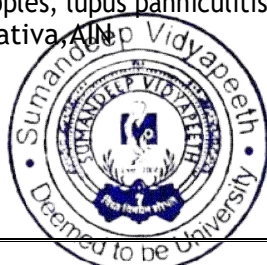
- Structure & cycle
- Alopecia - Alopecia areata, androgenetic alopecia, cicatricial alopecia
- Disturbances of hair cycle - Telogen effluvium
- Scaling disorders of scalp
- Hypertrichosis
- Hirsutism

#### ♦ Mucosa

- Oral
  - \* Peutz-Jegher's syndrome, acrodermatitis enteropathica, aphthous stomatitis, Behcet's disease, lichen planus, pemphigus, lupus erythematosus, herpes simplex, candidiasis, hairy leukoplakia
- Genital
  - \* Non-STD lesions

#### ♦ Miscellaneous

- Skin & eyes
  - \* Seborrheic blepharitis, cicatricial pemphigoid, EM, TEN, HSV, Reiter's disease
- Skin & ears
  - \* Granulomatous disorders, perichondritis, otitis externa
- Breast, perianal & umbilical disorders
  - \* Gynecomastia, cracked nipples, lupus panniculitis, Mondor's disease, pruritus ani, hidradenitis suppurativa, AIN





♦ **Treatment**

- Principles
- Topical therapy
- Systemic therapy
- Drug reactions including EM, SJS/TEN, maculopapular rash, FDE.

♦ **Recent Advances**

- LASER & its applications
- Dermatologic surgery & Cosmetology
  - \* Punch grafting, suction blister grafting, chemical peels, cryotherapy, radiofrequency, chemical cautery

## **Practical**

### **Semi- Long case**

- Leprosy
- Sexually Transmitted diseases
- General Dermatology- Vesiculobullous diseases/ Connective tissue diseases/ Erythroderma
- ♦ Short Cases- Any 10 cases of the following:
  - Disorders of Keratinization
  - Genetics & Genodermatosis
  - Diseases of hair
  - Diseases of nail
  - Diseases of mucosa
  - Diseases of sebaceous & sweat glands
  - Dermatitis
  - Infections- viral, bacterial, mycobacterial, fungal
  - Disorders of pigmentation
  - Drug Reactions
  - Photodermatosis
  - Connective tissue diseases
  - Immunological diseases
  - Vasculitis
  - Leprosy
  - Sexually Transmitted diseases
- ♦ Histopathology
- ♦ Grand viva- voce including drugs, X-rays, Equipment & thesis discussion
- ♦ To introduce Basic life support (BLS) and Advanced Cardiac Life Support (ACLS) training for all the First year Postgraduate Resident Doctors from academic year 2017-18.



- Postgraduate Resident Doctors from academic year 2020-2021 of duration of 4hrs (Board of Studies letter no.: SBKS/DEAN/742/2021, dated 05/06/2021 and Vide Notification of Board of Management Resolution Ref no.: SVDU/R/3051-1/2020-21, dated - 29<sup>th</sup> July 2021)

List of topics :

1. Introduction-Concept of Intellectual Property, Historical view of Intellectual Property system in India and International Scenario, Evolution of Intellectual Property Laws in India, Legal basis of Intellectual Property Protection, Need for Protecting Intellectual Property, Theories on concept of property - Major IP Laws in India.
2. Types of IPR: Patents, Copyright, Trademark Industrial Designs, Trade Secrets.
3. Patents: Concept of Patent, Criteria of Patentability, Inventions NOT patentable, Process of Obtaining a Patent, Duration of Patents, Rights of Patentee, Limitation of rights, Infringement and Enforcement.
4. Copyrights: Meaning of Copyright, Copyright Vs. Moral rights, Copyright eligibility, Term of Copyright, Registration of Copyright, Infringement and Remedies
5. Trademark: Meaning of Trademark, Criteria for trademark, Procedure for Trademark Registration, Term of protection, Infringement and Remedies.
6. Industrial Designs: Meaning of Industrial Designs, Rights in Industrial Designs: Nature, Acquisition and duration of rights.
7. Trade Secrets: Meaning of Trade Secrets, Need to protect Trade secrets, Criteria of Protection, Procedure for registration, Infringement.
8. Commercialization of IPR: Traditional IP and Evolving IP, Assignment, Licensing, Cross License, Patent Pool, Negotiations, Defensive Publications, Technical Disclosures, Patent Pooling, Patent Trolling, Brand Management, Brand and Pricing Strategies.

- With reference to the Notification vide no. MC!-18(1)2020-Med.1121415, dated 16.09.2020, related to 'Postgraduate Medical Education (Amendment) Regulations 2020'; all the postgraduate students pursuing MD / MS in broad specialties in Sumandeep Vidyapeeth Deemed to be University, as a part of course curriculum, shall undergo a compulsory Residential rotational posting in the 3rd or 4th or 5th semester of the Postgraduate programme, for a duration of three months, in the District Hospitals / District Health System, is confirmed and approved for execution.
- (Board of Studies letter no.: SBKS/DEAN/1576/2020, dated 0/10/2021 and Vide Notification of Board of Management Resolution : Ref no. SVDU/R/1271-1/2020-21, dated - 30<sup>th</sup> December 2020)

*To consider and approve the tmpte Students admitted in the 2021-22 batch as per the NMC notifications vide letter F.No. NMC23(1)(25)12021/PG/053909 dated 2211212022 and Clarification issued by NMC vide letter F. No. NMC/23(1)(25)12021/Med.1001866 dated 19.01.2023 Resolution ' with reference to the NMC notifications vide letter F.No. NMC-23(1)(25)t2021tpcto53g0g dated 2211212022 and Clarification issued by NMC vide letter F.No.NMC/23(1)(25)t2021/Med./001g66 dated 1910112023. the District Residency Program (DRP) shall be implemented for the students admitted in 2021-22 batch onwards. The said notification and clarification from NMC were considered and passed unanimously.*

*The communication from National Medical Commission vide no. NMC-23 (1) (25) / 2021 / PG / 053909, dated 22.12.2022 regarding Implementation of District Residency Programme, and National Medical Commission vide no. NMC-23(1)(25)/2021/Med./001866, dated 19.01.2023 regarding Clarification on implementation of District Residency Programme, is adopted for execution.*



*(BOS-Ref :SBKSMIRC/Dean/Outward No.1158/2022-23, Date of Academic council : 11/02/2023)*  
*(BOM-Ref. No.: SVDU/R/2431-A/2022-23, Date of Academic council : 29/05/2023)*

## **Skills**

- ❖ History and examination.
  - History taking including psychosocial history, general & systemic examination, local examination-skin & its appendages, mucosa.
- ❖ Bedside procedures
  - Monitoring skills: vitals recording, blood sampling.
  - Therapeutic & investigative skills: Dressing, administration of fluids & drugs, pulse therapy, skin & mucosal biopsy, abscess drainage and basic principles of rehabilitation.
- ❖ Bedside investigations
  - Woods lamp examination, dark ground illumination (DGI), urine: routine and Microscopic examination, KOH smear, Slit skin smear, Gram stain, ZN stain, Tzanck smear, Giemsa stain (tissue smear).
- ❖ Interpretation of X-rays of chest, abdomen, ECG.
- ❖ Understanding of Histopathology, Immunopathology, Immunohistochemistry.

## **Community and Social Dermatology**

National programmes – TB, leprosy, STD, AIDS. Prevention of sexually transmitted diseases, contraception, government and non-government support services. General principles of prevention and control of infectious diseases, investigation of an outbreak in a community.

## **4. Teaching Program**

### **General Principles**

Acquisition of practical competencies being the keystone of postgraduate medical education, postgraduate training is skills oriented.

Learning in postgraduate program is essentially self-directed and primarily emanating from clinical and academic work. The formal sessions are merely meant to supplement this core effort.

### **Teaching Sessions**

- ❖ Bedside Teaching Round
- ❖ Histopathology session
- ❖ Seminar
- ❖ Journal Club
- ❖ Case discussion

### **Teaching Schedule**

In addition to bedside teaching rounds to be carried by consultants daily in the department there should be daily hourly sessions of formal teaching per week. The suggested teaching schedule will be as follows:

1. Histopathology session
2. Seminar

---Once a week.

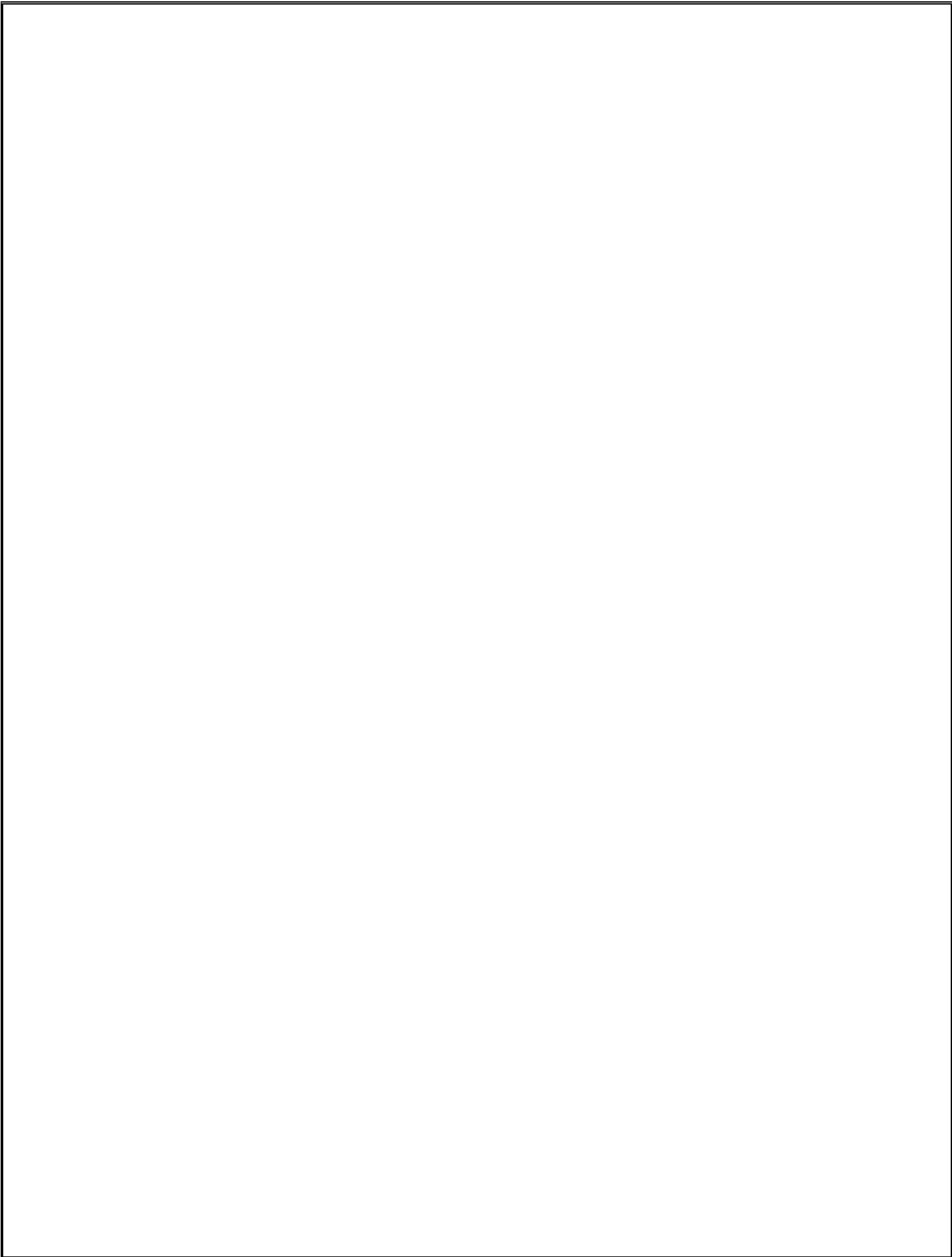
---Once a week.



- |   |                 |
|---|-----------------|
| 3. Journal Club.  | ---Once a week  |
| 4. Bedside case discussion  | ---Once a week  |
| 5. Seminar.   | ---Once a week  |
| 6. Central session (regarding various topics like CPC, guest lectures, student seminars, grand rounds, sessions on basic sciences, biostatistics, research methodology, teaching methodology, health economics, medical ethics and legal issues). Presentation in central session whenever requested. | --- Once a week |

Note:

- ♦ All sessions should be attended by the faculty members. All PGs are supposed to attend these sessions.



- ❖ All the teaching sessions are to be assessed by the consultants at the end of session and marks should be given out of 10() and kept in the office for internal assessment.
- ❖ Attendance of the Residents at various sessions has to be at least 75%.

## 5. Postings

|            |   |
|------------|---|
| Ward:      | 1 <sup>st</sup> & 2 <sup>nd</sup> year for every 2 months     |
| OPD:       | 3 <sup>rd</sup> year, 1 <sup>st</sup> & 2 <sup>nd</sup> year. |
| Minor O.T. | 1 <sup>st</sup> & 2 <sup>nd</sup> Year.                       |

## 6. Thesis

- ❖ Every candidate shall work on an assigned research project under the guidance of a recognized Postgraduate Teacher, the project shall be written and submitted in the form of a thesis.
- ❖ Every candidate shall submit the thesis plan to the University within the time frame specified by the university from the date of admission.
- ❖ Thesis shall be submitted to the University six months before the commencement of theory examination i.e. for examination May/June session, 30<sup>th</sup> November of the preceding year examination and for November/December session, 31<sup>st</sup> May of the year examination or as per time frame advised by the university.
- ❖ Identify a relevant research question: (ii) conduct a critical review of literature; (iii) formulate a hypothesis; (iv) determine the most suitable study design: (V) state the objectives of the study: (vi) prepare a study protocol; (vii) undertake a study according to the protocol; (viii) analyze and interpret research data, and draw conclusions; (ix) write a research paper.

## 7. Assessment

All the PG residents have to be assessed daily for their academic activities and also periodically,

### General Principles

- ❖ The assessment has to be valid, objective, and reliable.
- ❖ It should cover cognitive, psychomotor and affective domains.
- ❖ Formative, continuing and summative (final) assessment to be conducted in theory as well as practical/clinical, in addition, thesis should also be assessed separately.



## Formative Assessment

The formative assessment is to be continuous as well as end-of-term. The former has to be based on the feedback from the senior residents and the consultants concerned. End-of-term assessment should be held at the end of each semester (upto the 5<sup>th</sup> semester). Formative assessment will not count towards pass/fail at the end of the program, but will provide feedback to the candidate.

## Internal Assessment

The performance of the Postgraduate student during the training period should be monitored throughout the course and duly recorded in the log books as evidence of the ability and daily work of the student. Marks should be allotted out of 100 as follows.

| Sr. No. | Items                             | Marks |
|---------|-----------------------------------|-------|
| 1.      | Personal Attributes               | 20    |
| 2.      | Clinical Work                     | 20    |
| 3.      | Academic activities               | 20    |
| 4.      | End of term theory examination    | 20    |
| 5.      | End of term practical examination | 20    |

### 1. Personal attributes:

- ❖ **Behavior and Emotional Stability:** Dependable, disciplined, dedicated, stable in emergency situations, shows positive approach.
- ❖ **Motivation and Initiative:** Takes on responsibility, innovative, enterprising, does not shirk duties or leave any work pending.
- ❖ **Honesty and Integrity:** Truthful, admits mistakes, does not cook up information, has ethical conduct, exhibits good moral values, loyal to the institution.
- ❖ **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.

### 2. Clinical Work:

- ❖ **Availability:** Punctual, available continuously on duty, responds promptly on calls and takes proper permission for leave.
- ❖ **Diligence:** Dedicated, hardworking, does not shirk duties, leaves no work pending, does not sit idle, competent in clinical case work up and management.
- ❖ **Academic ability:** Intelligent, shows sound knowledge and skills, participates adequately in academic activities, and performs well in oral presentation and departmental tests.
- ❖ **Clinical Performance:** Proficient in clinical presentations and case discussion during rounds and OPD work up. Preparing documents of the case history/examination and progress notes in the file (daily notes, round discussion, investigations and management) Skill of performing bedside procedures and handling emergencies.



3. **Academic Activity:** Performance during presentation at Journal club/ Seminar/ Case discussion/Statmeetingandotheracademic sessions.Proficiency in skills as mentioned in job responsibilities.
4. **End of term theory examination** conducted at end of 1<sup>st</sup>, 2<sup>nd</sup> year and after 2 years 9 months
5. **End of term practical/oral examinations** after 2 years 9 months.

Marks for **personal attributes** and **clinical work** should be given annually by all the consultants under whom the resident was posted during the year. Average of the three years should be put as the final marks out of 20.

Marks for **academic activity** should be given by the all consultants who have attended the session presented by the resident.

The Internal assessment should be presented to the Board of examiners for due consideration at the time of Final Examinations.

### **Theory Examination:**

**There shall be four papers each of three hours duration. Each paper shall consist of**

**two long essay questions, three short essay questions and four short notes. These are:**

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

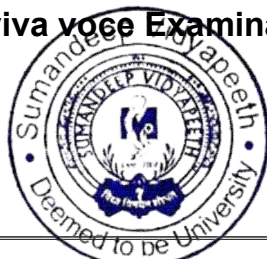
**Paper – II Dermatology**

**Paper – III STD & Leprosy**

**Paper – IV Recent advances in field of Dermatology, Applied Sciences**

**pertaining to skin /VD & internal medicine and skin**

### **3. Clinical / Practical and viva voce Examination**





**Practical examination should be taken to assess competence and skills of**

**techniques and procedures and should consist of two long cases, two short cases**

**and 10spots.**

**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.**