



RMU راولپنڈی میڈیکل یونیورسٹی
Rawalpindi Medical University

CURRICULUM & REGULATIONS **2 YEARS DIPLOMA PROGRAM** **DERMATOLOGY**



RAWALPINDI MEDICAL UNIVERSITY RAWALPINDI

DR. SHAWANA SHARIF

Assistant Professor of Dermatology

HEAD OF DEPARTMENT OF DERMATOLOGY AND AESTHETIC MEDICINE

PREFACE

The horizons of *Medical Education* are widening & there has been a steady rise of global interest in *Post Graduate Medical Education*, an increased awareness of the necessity for experience in education skills for all healthcare professionals and the need for some formal recognition of postgraduate training in Internal Medicine.

We are seeing a rise in the uptake of places on postgraduate courses in medical education, more frequent issues of medical education journals and the further development of e-journals and other new online resources. There is therefore a need to provide active support in *Post Graduate Medical Education* for a larger, national group of colleagues in all specialties and at all stages of their personal professional development. If we were to formulate a statement of



intent to explain the purpose of this log book, we might simply say that our aim is to help clinical colleagues to teach and to help students to learn in a better and advanced way. A summary of the curriculum is incorporated in the logbook for convenience of supervisors and Trainee. It also allows the clinicians to gain an understanding of what goes into basic science discoveries and drug development. A perfect monitoring system of a training program including monitoring of teaching and learning strategies, assessment and Research Activities cannot be denied so we at RMU have incorporated evaluation by *Quality Assurance Cell* and its comments in the logbook in addition to evaluation by *University Training Monitoring Cell (URTMC)*. Reflection of the supervisor in each and every section of the logbook has been made sure to ensure transparency in the training program. The mission of Rawalpindi Medical University is to improve the health of the communities and we serve through education, biomedical research and health care.

Prof. Muhammad Umar (S.I, H.I)

CONTRIBUTIONS

1. Dr. Shawana Sharif

MBBS, FCPS (Derm), DHR, CHPE

Assistant Professor

Head of Dermatology and Aesthetic Department

Benazir Bhutto Hospital

Rawalpindi

2. Dr. Uzma Hayat

M.B.B.S, MSPH, MHPE, DHR

Additional principal medical officer

Dermatology & Aesthetic Department

Benazir Bhutto Hospital

Rawalpindi

Table of Contents

Section 1	Preamble
Section 2	First year diploma dermatology
Section 3	Specific learning objectives

Section 4	Workshops
Section 5	Rotation schedule
Section 6	Milestones and EPA
Section 7	Research and thesis
Section 8	Assessment strategies
Section 9	References
Section 10	Appendices

SECTION – 1 Preamble

Introduction

The diploma in dermatology program is a two (2) years course which will cover all aspect of Dermatology. The curriculum provides the approved framework for the training of doctors to the level of independent, consultant dermatological practices, according to needs and requirements of Dermatology patients, general public and health services.

MISSION STATEMENT

RMU Mission Statement:

To impart evidence based research oriented health professional education in order to provide best possible patient care and inculcate the values of mutual respect, ethical practice of healthcare and social accountability

Mission Statement Of Departemnty Of Dermatology And Aesthetic Medicine :

The mission of Dermatology Post Graduate Training Programs of Rawalpindi Medical University is to provide exemplary dermatological care, treating all patients who come before us with uncompromising dedication and skill. We aim to set and pursue the highest goals for ourselves as we learn the science, craft, and art of Medicine. At our department we passionately teach our junior colleagues and students as we have been taught by those who preceded us and to treat our colleagues and hospital staff with kindness, respect, generosity of spirit, and patience. We have a mission to foster the excellence and well-being of our diploma program by generously offering our time, talent, and energy on its behalf. We aim to support and contribute

to the research mission of our dermatological center, nation, and the world by pursuing new knowledge, whether at the bench or bedside. One of our missions is to promote the translation of the latest scientific knowledge to the bedside to improve our understanding of disease pathogenesis and ensure that all patients receive the most scientifically appropriate and up to date care. Our objective is to promote responsible stewardship of dermatological resources by wisely selecting diagnostic tests and treatments, recognizing that our individual decisions impact not just our own patients, but patients everywhere. To promote social justice by advocating for equitable health care, without regard to race, gender, sexual orientation, social status, or ability to pay. To extend our talents outside the walls of our hospitals and clinics, to promote the health and well-being of communities

AIMS AND OBJECTIVES OF THE COURSE

AIM

The aim of Two years Diploma in Dermatology is to train postgraduates to acquire the competency of a specialist in the field of Dermatology so that they can become good clinicians in their specialty after completion of their training.

GENERAL OBJECTIVES

1. To provide a broad experience in Dermatology, including its interrelationship with other disciplines.
2. To enhance dermatological knowledge, clinical skills, and competence in bedside diagnostic and therapeutic procedures.
3. To achieve the professional requirements to prepare for Higher Physician Training in one or more specialty in Dermatology.

4. To cultivate the correct professional attitude and enhance communication skill towards patients, their families and other healthcare professionals.
5. To enhance sensitivity and responsiveness to community needs and the economics of health care delivery.
6. To enhance critical thinking, self-learning, and interest in research and development of patient service.
7. To cultivate the practice of evidence-based medicine and critical appraisal skills.

8. To inculcate a commitment to continuous dermatological education and professional development.
9. To provide a broad training and in-depth experience at a level for trainees to acquire competence and professionalism of a specialist in Dermatology especially in the diagnosis, investigation and treatment of dermatological problems towards the delivery of holistic patient care.
10. To acquire competence in managing acute dermatological emergencies and identifying dermatological problems in patients referred by primary care and other doctors, and in selecting patients for timely referral to appropriate tertiary care or the expertise of another specialty.
11. To develop competence in the inpatient and outpatient management of dermatological problems and in selecting patients for referral to tertiary care facilities and treatment modalities requiring high technology and/or the expertise of another specialty.
12. To manage patients in general dermatological units in regional/District hospitals; to be a leader in the health care delivery team and to work closely with networking units which provide convalescence, rehabilitation and long term care.
13. To encourage the development of skills in communication and collaboration with the community towards healthcare delivery.
14. To foster the development of skills in the critical appraisal of new methods of investigation and/or treatment.
15. To reinforce self-learning and commitment to continued updating in all aspects of Dermatology.

SPECIFIC OBJECTIVES

(A) Dermatological Knowledge

1. The development of a basic understanding of core Dermatology concepts.
2. Etiology, clinical manifestation, disease course and prognosis, investigation and management of common dermatological diseases.
3. Scientific basis and recent advances in pathophysiology, diagnosis and management of dermatological diseases.
4. Spectrum of clinical manifestations and interaction of multiple dermatological diseases in the same patient.

5. Psychological and social aspects of dermatological illnesses.
6. Effective use and interpretation of investigation and special diagnostic procedures.
7. Critical analysis of the efficacy, cost-effectiveness and cost-utility of treatment modalities.
8. Patient safety and risk management

9. Dermatological audit and quality assurance
10. Ethical principles and medico legal issues related to dermatological illnesses.
11. Updated knowledge on evidenced-based medicine and its implications for diagnosis and treatment of dermatological patients.
12. Familiarity with different care approaches and types of health care facilities towards the patients care with dermatological illnesses, including convalescence, rehabilitation, palliation, long term care, and dermatological ethics.
13. Knowledge on patient safety and clinical risk management.
14. Awareness and concern for the cost-effectiveness and risk-benefits of various advanced treatment modalities.
15. Familiarity with the concepts of administration and management and overall forward planning for a general dermatological unit.

(B) Skills

1. Ability to take a detailed history, gathers relevant data from patients, and assimilates the information to develop diagnostic and management plan.
2. Students are expected to effectively record an initial history and physical examination and follow-up notes as well as deliver comprehensive oral presentations to their team members based on these written documents.
3. Competence in eliciting abnormal physical signs and interpreting their significance.

4. Ability to relate clinical abnormalities with pathophysiologic states and diagnosis of diseases.
5. Ability to select appropriate investigation and diagnostic procedures for confirmation of diagnosis and patient management.
6. Trainee should be able to interpret basic as well as advanced laboratory data as related to the disorder/disease.
7. Basic understanding of routine laboratory and ancillary tests including complete blood count, chemistry panels, ECG, chest x-rays, pulmonary function tests, and body fluid cell counts. In addition, students will properly understand the necessity of incorporating sensitivity, specificity, pre-test probability and Bayes laws/theorem in the ordering of individual tests in the context of evaluating patients' signs and symptoms.
8. The formulation of a differential diagnosis with up-to—date scientific evidence and clinical judgment using history and physical examination data and the development of a prioritized problem list to select tests and make effective therapeutic decisions.

9. Assessing the risks, benefits, and costs of varying, effective treatment options; involving the patient in decision- making via open discussion; selecting drugs from within classes; and the design of basic treatment programs and using critical pathways when appropriate.

10. Trainee must be able to perform competently all dermatological and invasive procedures essential for the practice of general dermatology. This includes technical proficiency in taking informed consent, performing by using appropriate indications, contraindications, interpretations of findings and evaluating the results and handling the complications of the related procedures mentioned in the syllabus.

11. Trainee should be instructed in additional procedural skills that will be determined by the training environment, Trainee practice expectations, the availability of skilled teaching faculty, and privilege delineation.

12. Skills in performing important bedside diagnostic and therapeutic procedures and understanding of their indications. Trainees should acquire competence through supervised performance of the required number of each of the following procedures during the 1 and a half year training period and should record them in the Trainee's LogBook.

At least 10 times during the three-year training period:

- a. Cardiopulmonary resuscitation
- b. Central venous cannulation
- c. Marrow aspiration and trephine biopsy
- d. Abdominal paracentesis
- e. Pleural tapping and biopsy
- f. Endotracheal intubation
- g. Lumbar puncture
- h. Chest drain insertion
- i. Arterial Blood gases sampling

13. Ability to present clinical problems and literature review in grand rounds and seminars.

14. Good communication skills and interpersonal relationship with patients, families, dermatological colleagues, nursing and allied health professionals.

15. Ability to mobilize appropriate resources for management of patients at different stages of dermatological illnesses, including critical care, consultation of dermatological specialties and other disciplines, ambulatory and rehabilitative services, and community resources.

16. Competence in the diagnosis and management of emergency dermatological problems, in particular cardiorespiratory problems, stroke, organ failures, infection and shock, gastrointestinal bleeding, metabolic disorders and poisoning.

17. Competence in the diagnosis and management of acute and chronic dermatological problems as secondary care in a regional/district hospital.
18. Diagnostic skills to effectively manage complex cases with unusual presentations.
19. Ability to implement strategies for preventive care and early detection of diseases in collaboration with primary and community care doctors.
20. Ability to understand dermatological statistics and critically appraise published work and clinical research on disease presentations and treatment outcomes. Experience in basic and/or clinical research within the training programme should lead to publications and/or presentation in seminars or conferences.
21. Ability to recognize and appreciate the importance of cost-effectiveness of treatment modalities.
22. The identification of key information resources and the utilization of the dermatological literature to expand one's knowledge base and to search for answer to dermatological

problems. They will keep abreast of the current literature and be able to integrate it to clinical practice.

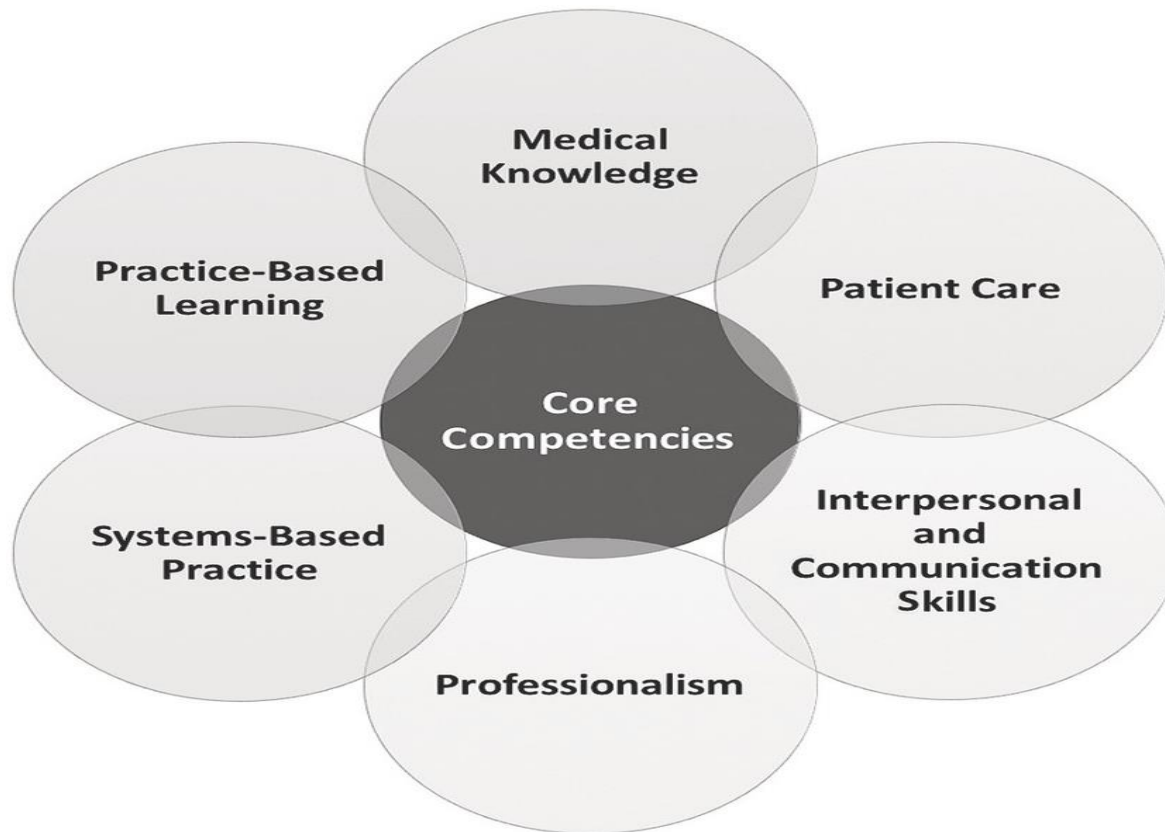
(C) Attitudes

1. The well-being and restoration of health of patients must be of paramount consideration.
2. Empathy and good rapport with patient and relatives are essential attributes.

3. An aspiration to be the team-leader in total patient care involving nursing and allied dermatological professionals should be developed.
4. The cost-effectiveness of various investigations and treatments in patient care should be recognized.
5. The privacy and confidentiality of patients and the sanctity of life must be respected.
6. The development of a functional understanding of informed consent, advanced directives, and the physician-patient relationship.
7. Ability to appreciate the importance of the effect of disease on the psychological and socio-economic aspects of individual patients and to understand patients' psycho-social needs and rights, as well as the dermatological ethics involved in patient management.
8. Willingness to keep up with advances in Dermatology and other Specialties.
9. Willingness to refer patients to the appropriate specialty in a timely manner.

10. Aspiration to be the team leader in total patient care involving nursing and allied dermatological professionals.
11. The promotion of health via adult immunizations, periodic health screening, and risk factor assessment and modification.
12. Recognition that teaching and research are important activities for the advancement of the profession.

(D) Other required core competencies:



1. PATIENT CARE

- Trainee are expected to provide patient care that is compassionate, appropriate and effective for the promotion of health, prevention of illness, treatment of disease and at the end of life.
- Gather accurate, essential information from all sources, including dermatological interviews, physical examinations, dermatological records and diagnostic/therapeutic procedures.
- Make informed recommendations about preventive, diagnostic and therapeutic options and interventions based on clinical judgment, scientific evidence, and patient preference.
- Develop, negotiate and implement effective patient management plans and integration of patient care.
- Perform competently the diagnostic and therapeutic procedures considered essential to the practice of dermatology.

2. INTERPERSONAL AND COMMUNICATION SKILLS

- Trainee are expected to demonstrate interpersonal and communication skills that enable them to establish and maintain professional relationships with patients, families, and other members of health care teams.
- Provide effective and professional consultation to other physicians and health care professionals and sustain therapeutic and ethically sound professional relationships with patients, their families, and colleagues.
- Use effective listening, nonverbal, questioning, and narrative skills to communicate with patients and families.
- Interact with consultants in a respectful, appropriate manner.
- Maintain comprehensive, timely, and legible dermatological records.

3. PROFESSIONALISM

- Trainee are expected to demonstrate behaviors that reflect a commitment to continuous professional developmental, ethical practice, an understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.
- Demonstrate respect, compassion, integrity, and altruism in relationships with patients, families, and colleagues.
- Demonstrate sensitivity and responsiveness to the gender, age, culture, religion, sexual preference, socioeconomic status, beliefs, behavior and disabilities of patients and professional colleagues.
- Adhere to principles of confidentiality, scientific/academic integrity, and informed consent.
- Recognize and identify deficiencies in peer performance.
- Understand and demonstrate the skill and art of end of life care.

4. PRACTICE-BASED LEARNING AND IMPROVEMENT

- Trainee are expected to be able to use scientific evidence and methods to investigate, evaluate, and improve patient care practices.
- Identify areas for improvement and implement strategies to enhance knowledge, skills, attitudes and processes of care.
- Analyze and evaluate practice experiences and implement strategies to continually improve the quality of patient practice.
- Develop and maintain a willingness to learn from errors and use errors to improve the system or processes of care.

- Use information of technology or other available methodologies to access and manage information, support patient care decisions and enhance both patient and physician education.

5. SYSTEMS-BASED PRACTICE

- Trainees are expected to demonstrate both an understanding of the contexts and systems in which health care is provided, and the ability to apply this knowledge to improve and optimize health care.
- Understands and utilizes the resources, providers and systems necessary to provide optimal care.
- Understand the limitations and opportunities inherent in various practice types and delivery systems, and develop strategies to optimize care for the individual patient.
- Apply evidence-based, cost-conscious strategies to prevention, diagnosis, and disease management.
- Collaborate with other members of the health care team to assist patients in dealing effectively with complex systems and to improve systematic processes of care.

Table 1: Training Pathway Diploma Dermatology

Training Year	Module Name	Duration	Exams
1st year	Dermatology	12 months	In training assessment 1st year
2nd year	Dermatology	12 months	2nd year Terminal Exam
	Rotations 1. Plastic surgery 2. Laser 3. Leprosy	During 02 years Training in Dermatology, one month rotation in Plastic surgery and 15 days each in Laser and Leprosy	

ROTATIONS

5 th	Rotations	<h3 style="color: #00AEEF;">Modular System</h3> <p>The 02-year Diploma in Dermatology training will comprise of:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px auto;"> <thead> <tr> <th style="width: 15%; text-align: center;">Training Year</th> <th style="width: 55%; text-align: center;">Module Name</th> <th style="width: 30%; text-align: center;">Duration</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1st</td> <td style="text-align: center;">DERMATOLOGY</td> <td style="text-align: center;">12 months</td> </tr> <tr> <td style="text-align: center;">2nd</td> <td style="text-align: center;">DERMATOLOGY</td> <td style="text-align: center;">12 months</td> </tr> </tbody> </table> <p>ROTATIONS IN FINAL (2nd) YEAR</p> <p>PLASTIC SURGERY (1month)</p> <p>LASER (15 days)</p> <p>LEPROSY (15 days)</p>		Training Year	Module Name	Duration	1st	DERMATOLOGY	12 months	2nd	DERMATOLOGY	12 months
Training Year	Module Name	Duration										
1st	DERMATOLOGY	12 months										
2nd	DERMATOLOGY	12 months										

- Credit hours will be awarded to the candidates after they have attended and cleared the Internal assessment of each module.

- Diploma Dermatology will comprise of 02 exams; one at the end of 1st year intraining and then on completion of 2nd(final) year of training .

8 TEACHING STRATEGIES

8.1) TEACHING PROGRAM

1. 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.

Inpatient Services: Diploma trainees during 2 years will be trained according to RMU diploma in dermatology curriculum.

Outpatient Experiences: should demonstrate expertise in diagnosis and management of patients in acute care clinics and gain experience in dealing with diagnosis of hernia, cholecystitis, acute abdomen, thyroid swelling, and breast lumps etc.

Emergency services: Trainee take an early active role in patient care and obtain decision-making roles quickly. Within the Emergency Department, Trainee direct the initial stabilization of all critical patients, manage airway interventions, and oversee all critical care being first responder, and be able to diagnose surgical emergency such as acute abdomen, blunt trauma abdomen/chest, penetrating injury, and be able to perform minor surgical procedures like chest intubation, central line catheterization, FAST scan etc.

Electives / Specialty Rotations: Diploma Trainees will do elective rotations in a variety of electives including, plastic surgery/lasers/leprosy. Trainee may also select electives at other institutions if the parent department does not offer the experiences they want.

Mandatory Workshops: Trainee achieve hands on training while participating in mandatory workshops of Basic surgical skills, Advanced Life Support, Communication Skills, Computer & Internet. Specific objectives are given in detail in the relevant section of Mandatory Workshops.

Procedural competencies: The clinical skills, which a Dermatologist must have are, varied and complex. A complete list of the same necessary for trainees and trainers is given below. Some examples, which are a sub sample of the whole, follow. These are to be taken as guidelines rather than definitive requirements. Key for assessing competencies:

1. Observer status.
2. Assistant status.
3. Performed under direct supervision.
4. Performed under indirect supervision.
5. Performed independently

8.2) Teaching program in

- Bedside teaching rounds
- Journal club
- Seminar
- case discussion

Central session (held in hospital auditorium regarding various topics like , guest lectures, student seminars, grand round, , health economics, medical ethics and legal issues).

8.3) Teaching Schedule

In addition to bedside teaching rounds, in the department there will be daily hourly sessions of formal teaching per week. The suggested time distribution of each session for department's teaching schedule as follows:

- Journal club Once a week
- Seminar once a week
- PG case discussion Twice a week
- Central session as per hospital schedule
- Workshops

Note:

- All sessions are supervised by faculty members. It is mandatory for all Trainee to attend the sessions except those posted in emergency.
- All the teaching sessions are assessed by the faculty members at the end of session and marks are given out of 10 and kept in the office for internal assessment.
- Attendance of the Trainee at various sessions has to be at compulsory.

9 Assessment Guidelines

Assessment

It will consist of action and professional growth oriented student-centered integrated assessment with an additional component of informal internal assessment, formative assessment and measurement-based summative assessment.

Student-Centered Integrated Assessment It views students as decision-makers in need of information about their own performance. Integrated Assessment is meant to give students responsibility for deciding what to evaluate, as well as how to evaluate. It encourages students to ‘own’ the evaluation and to use it as a basis for self-improvement. Therefore, it tends to be growth-oriented, student-controlled, collaborative, dynamic, contextualized, informal, flexible and action-oriented.

SELF ASSESSMENT BY THE STUDENT

- Each student will be provided with a pre-designed self-assessment form to evaluate his/her level of comfort and competency in dealing with different relevant clinical situations. It will
- be the responsibility of the student to correctly identify his/her areas of weakness and to take appropriate measures to address those weaknesses.

360-Degree Evaluation Instrument-Multi-Source Feedback (MSF):

- The students will also be expected to evaluate their peers after the monthly small group meeting. These should be followed by a constructive feedback according to prescribed guidelines and should be nonjudgmental in nature. This will enable students to become good mentors in future.
- From peers.
- Paramedical staff.
- From Patients.
- From Supervisors.

INFORMAL INTERNAL ASSESSMENT BY THE FACULTY

- There will be no formal allocation of marks for the component of Internal Assessment so that students are willing to confront their weaknesses rather than hiding them from their instructors.
- It will include:
 - Punctuality
 - Ward work
 - Monthly assessment (written tests to indicate particular areas of weaknesses)

- Participation in interactive sessions

FORMATIVE ASSESSMENT

- Will help to improve the existing instructional methods and the curriculum in use

WPBA of post graduate trainees in Rawalpindi Medical University

Monthly Assessments in Dermatology Department	
DOPS	25 MCQs Quarterly
Mini-CEx	
CBD	
DOPS	
Mini-CEx	
CBD	
CBD	
360-degree evaluation	
LOG BOOK	
CBD → DOPS → Mini - CEX after every 06 months. Quarterly 25 MCQ Test	

1. **360 Degree evaluation** will be done at every 6 months by:

- Supervisor/consultant

- b. Paramedical staff
- c. Patients
- d. Self-assessment of Trainee by himself.

2. **LOG BOOK** will be maintained by the Trainee and counter signed by the supervisors.

FEEDBACK TO THE FACULTY BY THE STUDENTS:

- After every three months' students will be providing a written feedback regarding their course components and teaching methods. This will help to identify strengths and weaknesses of the relevant course, faculty members and to ascertain areas for further improvement.

Mini-Clinical Evaluation Exercise(mini-CEX)

This tool evaluates a clinical encounter with a patient to provide an indication of competence in skills essential for good clinical care such as history taking, examination and clinical reasoning. The trainee receives immediate feedback to aid learning. They can be used at any time and in any setting when there is a trainee and patient interaction and an assessor is available.

Direct Observation of Procedural Skills (DOPS)

A DOPS is an assessment tool designed to evaluate the performance of a trainee in undertaking a practical procedure, against a structured checklist. The trainee receives immediate feedback to identify strengths and areas for development.

Case-Based Discussion (CBD)

The CBD assesses the performance of a trainee in their management of a patient to provide an indication of competence in areas such as clinical reasoning, decision-making and application of medical knowledge in relation to patient care. It also serves as a method to document conversations about, and presentations of, cases by trainees. The CBD should focus on a written record (such as written case notes, out-patient letter, and discharge summary). A typical encounter might be when presenting newly referred patients in the out- patient department.

Audit Assessment (AA)

The Audit Assessment tool is designed to assess a trainee's competence in completing an audit. The Audit Assessment can be based on review of audit documentation OR on a presentation of the audit at a meeting. If possible, the trainee should be assessed on the same audit by more than one assessor.

SUMMATIVE ASSESSMENT

It will be carried out at the end of the program to empirically evaluate cognitive, psychomotor and affective domains in order to award diplomas for successful completion of courses.

SECTION – 2

FIRST YEAR DIPLOMA DERMATOLOGY

General

1. History Taking
(Knowledge)
2. History Taking
(Skills)
3. History Taking
(Behaviors)
4. Clinical examination
(knowledge)
5. Clinical examination
(skills)
6. Clinical examination
(Behaviors)
7. Time management and decision making
8. Decision making and clinical reasoning

SUBJECT SPECIFIC TOPICS

Foundation of Dermatology

1. History of dermatology
2. Structure and Function of skin
3. Histopathology of skin: general principles
4. Diagnosis of skin disease
5. Epidemiology of skin disease
6. Health economics and skin disease
7. Genetics and the skin
8. Inflammation, immunology and allergy
9. Photobiology
10. Cutaneous response to injury and wound healing
11. Psychological and social impact of long term dermatological conditions
12. Adverse immunological reactions to drugs
13. Topical drug delivery
14. Clinical pharmacology

Management

1. Principles of holistic management of skin disease
2. Principles of measurement and assessment in dermatology
3. Principles of evidence based dermatology

4. Principles of topical therapy
5. Principles of systemic therapy
6. Principles of skin surgery
7. Principles of phototherapy
8. Principles of photodynamic therapy
9. Principles of cutaneous laser therapy
10. Principles of radiotherapy

Infections and infestations

1. Viral infections
2. Bacterial infections
3. Mycobacterial infections
4. Leprosy
5. Syphilis and congenital syphilis
6. Other sexually transmitted bacterial diseases
7. HIV and the skin
8. Fungal infections
9. Parasitic diseases
10. Arthropods

Inflammatory dermatoses

1. Psoriasis and related disorders

2. Pityriasis rubra pilaris
3. Lichen planus and lichenoid disorders
4. Graft versus host disease
5. Eczematous disorders
6. Seborrheic dermatitis
7. Atopic eczema
8. Urticaria
9. Recurrent angio oedema without weals
10. Urticarial vasculitis
11. Autoinflammatory diseases presenting in the skin
12. Mastocytosis
13. Reactive inflammatory erythemas
14. Adamantiades behcet disease
15. Neutrophilic dermatoses
16. Immunobullous diseases
17. Lupus erythematosus
18. Antiphospholipid syndrome
19. Dermatomyositis
20. Mixed connective tissue disease
21. Dermatological manifestations of rheumatoid disease
22. Systemic sclerosis
23. Morphoea and allied scarring and sclerosing inflammatory dermatoses

Metabolic and nutritional disorders affecting the skin

1. Cutaneous amyloidosis
2. Cutaneous mucinoses
3. Cutaneous porphyrias
4. Calcification of skin and subcutaneous tissue
5. Xanthomas and abnormality of lipid metabolism and storage
6. Nutritional disorders affecting the skin
7. Skin disorders in diabetes mellitus

Genetic disorders involving the skin

1. Inherited disorders of cornification
2. Inherited acanpholytic disorders
3. Ectodermal dysplasias
4. Inherited hair disorders
5. Genetic defects of nails and nail growth
6. Genetic disorders of pigmentation
7. Genetic blistering diseases
8. Genetic disorders of collagen, elastin and dermal matrix
9. Disorders affecting cutaneous vasculature
10. Genetic disorders of adipose tissue
11. Congenital naevi and other developmental abnormalities affecting the skin
12. Chromosomal disorders

13. Poikiloderma syndromes
14. DNA repair disorders with cutaneous features
15. Syndromes with premature ageing
16. Hamartoneoplastic syndromes
17. Inherited metabolic diseases
18. Inherited immunodeficiency

Psychological, sensory and neurological disorders and the skin

1. Pruritus, prurigo and lichen simplex
2. Mucocutaneous pain syndromes
3. Neurological conditions affecting the skin
4. Psychodermatology and psychocutaneous disease

FINAL 2ND YEAR DIPLOMA DERMATOLOGY

Skin disorders associated with specific cutaneous structure

2. Acquired disorders of epidermal keratinization
 1. Acquired pigmentary disorders
 2. Acquired disorders of hair
 3. Acne
 4. Rosacea
 5. Hidradenitis suppurative
 6. Other acquired disorders of the pilosebaceous unit
 7. Disorders of sweat glands
 8. Acquired disorders of nails and nail unit
 9. Acquired disorders of dermal connective tissue
 10. Granulomatous disorders of the skin
 11. Sarcoidosis
 12. Panniculitis
 13. Other acquired disorders of subcutaneous fat

Vascular disorders involving the skin

1. Purpura
2. Cutaneous vasculitis

3. Dermatoses resulting from disorders of the veins and arteries
4. Ulceration resulting from disorders of the veins and the arteries
5. Disorders of the lymphatic vessels
6. Flushing and blushing

Skin disorders associated with specific sites,sex and age

1. Dermatoses of the scalp
2. Dermatoses of external ear
3. Dermatoses of the eye,eyelids and eyebrows
4. Dermatoses of the oral cavity and lips
5. Dermatoses of the male genitalia
6. Dermatoses of the female genitalia
7. Dermatoses of perineal and perianal skin
8. Cutaneous complications of stomas and fistulae
9. Dermatoses of pregnancy
- 10.Dermatoses of the neonate
- 11.Dermatoses and haemangiomas of infancy

Skin disorders caused by external agents

1. Benign cutaneous adverse reactions to drugs
2. Severe cutaneous adverse reactions to drugs
3. Cutaneous side effects of chemotherapy and radiotherapy
4. Dermatoses induced by illicit drugs
5. Dermatological manifestations of metal poisoning
6. Mechanical injury to the skin
7. Pressure injury and pressure ulcers
8. Cutaneous reactions to cold and heat
9. Burns and heat injury
10. Cutaneous photosensitivity diseases
11. Allergic contact dermatitis
12. Irritant contact dermatitis
13. Occupational dermatology
- 14. Stings and bites**

Neoplastic ,proliferative and infiltrative disorders affecting the skin

1. Benign melanocytic proliferation and melanocytic
2. Benign keratinocytic acanthomas and proliferation

3. Cutaneous cysts
4. Lymphocytic infiltrates
5. Cutaneous histiocytoses
6. Soft tissue tumors and tumor like conditions
7. Tumors of skin appendages
8. Kaposi sarcoma
9. Cutaneous lymphomas
10. Basal cell carcinoma
11. Squamous cell carcinoma and its precursors
12. Melanomas
13. Melanoma clinicopathology
14. Melanoma surgery
15. Systemic treatment of melanoma
16. Dermoscopy of melanoma and naevi
17. Merkel cell carcinoma
18. Skin cancer in immunocompromised patient

Systemic disease and the skin

1. Cutaneous markers of internal malignancy
2. The skin and the disorders of the haematopoietic and immune systems
3. The skin and endocrine disorders
4. The skin and disorders of heart
5. The skin and the disorders of the respiratory system

6. The skin and the disorders of the digestive system
7. The skin and the disorders of the kidney and urinary tract
8. The skin and the disorders of the musculoskeletal system

Aesthetic Dermatology

1. Skin ageing
2. Cosmeceuticals
3. Soft tissue augmentation
4. Aesthetic uses of botulinum toxins
5. Chemical peels
6. Lasers and energy-based devices

SECTION -3 : SPECIFIC LEARNING OBJECTIVES**SPECIFIC LEARNING OUTCOMES FOR FIRST AND SECOND YEAR DIPLOMA
IN DERMATOLOGY**

TOPICS TO BE TAUGHT	LEARNING OBJECTIVES Student should be able to know:	TEACHING METHOD	ASSESSMENT
1. History Taking (Knowledge)	<ul style="list-style-type: none"> • To progressively develop the ability to obtain a relevant focused history from increasingly complex patients and challenging circumstances • To record accurately and synthesize history with clinical examination and formulation of management plan according to likely clinical evolution • Recognizes the importance of 	Bedside teaching in wards and outpatient departments	mini-CEX MCQs

	<p>different elements of history</p> <ul style="list-style-type: none"> • Recognizes the importance of clinical (particularly cognitive impairment), psychological, social, cultural and nutritional factors particularly those relating to ethnicity, race, cultural or religious beliefs and preferences, sexual orientation, gender and disability • Recognizes that patients do not present history in structured fashion and that the history may be influenced by the presence of acute and chronic medical conditions • Knows likely causes and risk factors for conditions relevant to mode of presentation • Recognizes that history should inform examination, investigation and management 		
--	---	--	--

<p>2. History Taking (Skills)</p>	<ul style="list-style-type: none"> • Identify and overcome possible barriers (eg cognitive impairment) to effective communication • Manage time and draw consultation to a close appropriately • Supplement history with standardised instruments or questionnaires when relevant • Manage alternative and conflicting views from family, carers and friends • Assimilate history from the available information from patient and other sources • Recognise and interpret the use of non verbal communication from patients and carers • Focus on relevant aspects of history 	<p>Bedside teaching in wards and outpatient departments</p>	<p>mini-CEX</p>
---	--	---	-----------------

3. History Taking (Behaviors)	<ul style="list-style-type: none"> • Show respect and behave in accordance with Good Medical Practice 	<p>Bedside teaching in wards and outpatient departments</p>	<p>ACAT mini-CEX</p>
4. Clinical examination (knowledge)	<ul style="list-style-type: none"> • To progressively develop the ability to perform focussed and accurate clinical examination in increasingly complex patients and challenging circumstances • To relate physical findings to history in order to establish diagnosis and formulate a management plan • Understand the need for a valid clinical examination • Understand the basis for clinical signs and the relevance of positive and negative physical signs 	<p>Bedside teaching in wards and outpatient departments</p>	<p>CbD mini-CEX ACAT</p>

	<ul style="list-style-type: none"> • Recognise constraints to performing physical examination and strategies that may be used to overcome them • Recognise the limitations of physical examination and the need for adjunctive forms of assessment to confirm diagnosis 		
<p>5. Clinical examination (skills)</p>	<ul style="list-style-type: none"> • Perform an examination relevant to the presentation and risk factors that is valid, targeted and time efficient • Recognize the possibility of deliberate harm in vulnerable patients and report to appropriate agencies • Interpret findings from the history, physical examination and mental state examination, 	<p>Bedside teaching in wards and outpatient departments</p>	<p>CbD mini-CEX ACAT</p>

	<p>appreciating the importance of clinical, psychological, religious, social and cultural factors</p> <ul style="list-style-type: none"> • Actively elicit important clinical findings • Perform relevant adjunctive examinations including cognitive examination such as Mini Mental state Examination (MMSE) and Abbreviated Mental Test Score (AMTS) 		
<p>6. Clinical examination (Behaviors)</p>	<ul style="list-style-type: none"> • Show respect and behaves in accordance with Good Medical Practice 	<p>Bedside teaching in wards and outpatient departments</p>	<p>CbD, mini-CEX, MSF</p>
<p>7. Time management and</p>	<ul style="list-style-type: none"> • To become increasingly able to prioritise and organise clinical and clerical duties in order to 	<p>Bedside teaching in wards and</p>	<p>ACAT, CbD</p>

decision making	optimise patient care. To become increasingly able to make appropriate clinical and clerical decisions in order to optimise the effectiveness of the clinical team resource	outpatient departments	
8. Decision making and clinical reasoning	<ul style="list-style-type: none"> • To progressively develop the ability to formulate a diagnostic and therapeutic plan for a patient according to the clinical information available • To progressively develop the ability to prioritise the diagnostic and therapeutic plan • To be able to communicate the diagnostic and therapeutic plan appropriately 	Bedside teaching in wards	ACAT, Cbd, mini-CEX

SPECIFIC LEARNING OUTCOMES FOR FIRST YEAR DIPLOMA IN
DERMATOLOGY

Foundation of Dermatology

By the end of this session the student should be able to:

Management

At the end of this session/topic student should be able to:

Sno	Topic	Learning outcome
1.	Principles of holistic management of skin disease	integrate holistic approaches in the management of skin diseases by considering the patient's overall health, lifestyle, and underlying causes of skin conditions
2.	Principles of measurement and assessment in dermatology	interpret various dermatological assessment tools, such as the PASI (Psoriasis Area and Severity Index) and SCORAD (Scoring Atopic Dermatitis), to evaluate the severity and progression of common dermatological conditions
3.	Principles of evidence based dermatology	Understand and apply the principles of evidence-based medicine (EBM) in dermatology to diagnose and manage common skin conditions.
4.	Principles of topical therapy	Understand and apply the principles of selecting appropriate

		topical vehicles and agents based on the type and location of dermatologic conditions
5.	Principles of systemic therapy	Understand and apply the pharmacological principles of systemic therapy in dermatology, including the mechanisms of action, indications, contraindications, and potential side effects of commonly used systemic medications
6.	Principles of skin surgery	Demonstrate a thorough understanding of aseptic techniques and their critical importance in preventing infections during dermatologic surgical procedures. This includes proper hand hygiene, sterilization of instrument.
7.	Principles of phototherapy	Explain the fundamentals and types and clinical applications of phototherapy
8.	Principles of photodynamic therapy	Describe photodynamic therapy utilizes photosensitizing agent for destroy cells.
9.	Principles of cutaneous laser therapy	Explain how selective photo thermolysis allows for the targeted destruction of specific skin structures using laser therapy, minimizing damage to surrounding tissues.

10.	Principles of radiotherapy	<p>Understand the Indications and Mechanisms of Radiotherapy in Treating Skin Cancers</p> <p>Identify the appropriate clinical scenarios for using radiotherapy in dermatology, particularly for non-melanoma skin cancers such as basal cell carcinoma (BCC) and squamous cell carcinoma (SCC).</p>
11.	Principles of holistic management of skin disease	<p>Understand how various factors contribute to skin health and the importance of a multidisciplinary approach in treatment</p>
12.	Principles of measurement and assessment in dermatology	<p>Interpret various dermatological assessments, including skin biopsies, patch testing, and dermoscopy, to diagnose and manage common skin conditions effectively</p>
13.	Principles of evidence based dermatology	<p>Evaluate dermatological research and clinical guidelines to make informed decisions about patient care.</p> <p>Understand the hierarchy of evidence, interpreting study results, and integrating clinical expertise with the best available evidence</p>

Infections and infestations

		to manage common dermatological conditions effectively.
At the end of this session, the student should be able to :		
Sno.	topic	Learning outcome
1.	Viral infections	Identify and describe the clinical presentations, pathophysiology, and management of common viral skin infections.
2.	Bacterial infections	Describe the clinical features, pathogenesis, and treatment options for common bacterial skin infections, including impetigo, cellulitis, and folliculitis.
3.	Mycobacterial infections	Understand the clinical presentation, diagnosis, and management of cutaneous mycobacterial infections, including the differentiation between common mycobacterial species

4.	Leprosy	Recognize and differentiate the clinical presentations and classifications of leprosy (Hansen's disease) to accurately diagnose and manage the condition
5.	Syphilis and congenital syphilis	Identify and differentiate the characteristic skin manifestations of syphilis and congenital syphilis, including primary, secondary, and tertiary syphilis lesions, as well as early and late congenital syphilis skin findings.
6.	Other sexually transmitted bacterial diseases	Explain the clinical presentation, diagnosis, and treatment of sexually transmitted bacterial infections, including their stages and potential complications.
7.	HIV and the skin	Recognize and differentiate common cutaneous manifestations associated with HIV infection, including their clinical presentations, underlying pathophysiology, and implications for patient management.

8.	Fungal infections	Identify and describe the clinical features and diagnostic methods for common superficial fungal infections of the skin, such as tinea corporis, tinea pedis, and candidiasis
9.	Parasitic diseases	Identify and describe the clinical manifestations, diagnostic methods, and treatment options for common parasitic skin infections such as scabies, lice, and cutaneous larva migrans.
10.	Arthropods	Identify and describe the clinical manifestations, diagnostic methods, and treatment options for common arthropod infections of the skin, including scabies, lice infestations, and tick-borne diseases.

Inflammatory dermatoses

At the end of this session student should be able to:

Sno.	Topic	Learning outcome
1.	Psoriasis and related disorders	Understand the pathophysiology, clinical features, and treatment options for psoriasis and related disorders.
2.	Pityriasis rubra pilaris	Identify the clinical presentation and management strategies for

		pityriasis rubra pilaris.
3.	Lichen planus and lichenoid disorders	Recognize the clinical manifestations and therapeutic approaches for lichen planus and lichenoid disorders.
4.	Graft versus host disease	Describe the cutaneous manifestations and management of graft versus host disease.
5.	Eczematous disorders	Differentiate between various eczematous disorders and outline their treatment protocols.
6.	Seborrheic dermatitis	Explain the etiology, clinical features, and treatment of seborrheic dermatitis.
7.	Atopic eczema	Understand the pathogenesis, clinical presentation, and management of atopic eczema.
8.	Urticaria	Identify the causes, clinical features, and treatment options for urticaria.
9.	Recurrent angioedema without weals	Recognize the clinical presentation and management of recurrent angioedema without weals.
10.	Urticarial vasculitis	Describe the clinical features and treatment of urticarial vasculitis.
11.	Autoinflammatory diseases presenting in the skin	Understand the clinical presentation and management of autoinflammatory diseases affecting the skin.
12.	Mastocytosis	Identify the clinical features and treatment options for mastocytosis.
13.	Reactive inflammatory erythemas	Recognize the clinical presentation and management of reactive inflammatory erythemas.

14.	Adamantiades Behcet disease	Describe the clinical features and management of Adamantiades Behcet disease.
15.	Neutrophilic dermatoses	Understand the clinical presentation and treatment of neutrophilic dermatoses.
16.	Immunobullous diseases	Identify the clinical features and management of immunobullous diseases.
17.	Lupus erythematosus	Describe the cutaneous manifestations and treatment of lupus erythematosus.
18.	Antiphospholipid syndrome	Recognize the cutaneous signs and management of antiphospholipid syndrome.
19.	Dermatomyositis	Understand the clinical presentation and treatment of dermatomyositis.
20.	Mixed connective tissue disease	Identify the clinical features and management of mixed connective tissue disease.
21.	Dermatological manifestations of rheumatoid disease	Students will be able to identify and describe the common dermatological manifestations associated with rheumatoid arthritis, including rheumatoid nodules, vasculitis, and palmar erythema.
22.	Systemic sclerosis	Students will be able to recognize and explain the cutaneous features of systemic sclerosis, such as sclerodactyly, digital ulcers, and telangiectasia, and understand their pathophysiology.
23.	Morphoea and allied scarring and sclerosing inflammatory	Students will be able to differentiate between morphoea and other sclerosing dermatoses, describe their clinical presentations, and

	dermatoses	outline the basic principles of management.
--	------------	---

Metabolic and nutritional disorders affecting the skin:**At the end of this sessions student should be able to**

Sno.	topic	Learning outcome
1.	Cutaneous amyloidoses	Understand the pathophysiology and clinical presentation of cutaneous amyloidoses to diagnose and manage cases

2.	Cutaneous mucinoses	Identify the types and clinical features of cutaneous mucinoses to differentiate them from other skin disorders
3.	Cutaneous porphyrias	Recognize the biochemical basis and clinical manifestations of cutaneous porphyrias for accurate diagnosis
4.	Calcification of skin and subcutaneous tissue	Describe the mechanisms and clinical implications of skin and subcutaneous tissue calcification
5.	Xanthomas and abnormality of lipid metabolism and storage	Explain the pathogenesis and clinical features of xanthomas and their association with lipid metabolism disorders.
6.	Nutritional disorders affecting the skin	Assess the impact of nutritional deficiencies on skin health and identify related dermatological conditions.
7.	Skin disorders in diabetes mellitus	Evaluate the common skin manifestations in diabetes mellitus and their management strategies

Genetic disorders

At the end of this session, the student should be able to :		
Sno.	topic	Learning outcome
1.	Inherited disorders of cornification	describe the genetic and molecular mechanisms underlying inherited disorders of cornification, such as ichthyoses and palmoplantar keratodermas.
2.	Inherited acanpholytic disorders	explain the genetic basis, pathophysiological mechanisms, and clinical manifestations of Hailey-Hailey disease, including its characteristic acantholysis, vesicular eruptions, and common sites of involvement
3.	Ectodermal dysplasias	identify and describe the clinical manifestations and genetic basis of ectodermal dysplasias, with a focus on the diagnosis and management of hypohidrotic ectodermal dysplasia (HED)
4.	Inherited hair disorders	identify and describe the genetic mutations responsible for common inherited hair disorders, such as hypotrichosis, trichothiodystrophy, and ectodermal dysplasia

5.	Genetic defects of nails and nail growth	describe the clinical features, genetic mutations, and diagnostic criteria of Nail-Patella Syndrome, a hereditary condition characterized by nail dysplasia, skeletal anomalies, and other systemic manifestations.
6.	Genetic disorders of pigmentation	explain the genetic mutations involved in Incontinentia Pigmenti (IP), an X-linked dominant disorder, and describe its clinical manifestations, including the characteristic stages of skin lesions and associated neurological, dental, and ocular complications
7.	Genetic blistering diseases	describe the genetic basis, pathophysiological mechanisms, and clinical features of different types of Epidermolysis Bullosa (EB), including EB simplex, junctional EB, dystrophic EB, and Kindler syndrome.
8.	Genetic disorders of collagen, elastin and dermal matrix	explain the genetic mutations affecting collagen synthesis and structure, describe the clinical features such as skin hyperextensibility, joint hypermobility, and tissue fragility, and discuss the diagnostic criteria and management strategies for EDS12.
9.	Disorders affecting cutaneous vasculature	identify and describe the various clinical manifestations of cutaneous vasculitis, including palpable purpura, nodules, and livedo reticularis
10.	Genetic disorders of adipose tissue	describe the genetic basis, pathophysiological mechanisms, and clinical features of lipodystrophy syndromes, including the differentiation between congenital and acquired forms

11.	Congenital naevi and other developmental abnormalities affecting the skin	describe the genetic and developmental mechanisms leading to the formation of congenital melanocytic naevi, recognize their clinical features, and differentiate them from other types of naevi and skin abnormalities
12.	Chromosomal disorders	explain the genetic mechanisms underlying chromosomal disorders affecting the skin, such as Down syndrome (Trisomy 21) and Turner syndrome (Monosomy X), and describe their characteristic dermatological features
13.	Poikiloderma syndromes	identify the characteristic clinical features of Poikiloderma syndromes, including skin atrophy, telangiectasia, and pigmentary changes
14.	DNA repair disorders with cutaneous features	<p>Describe the clinical features of Xeroderma Pigmentosum (XP), including extreme sensitivity to ultraviolet (UV) radiation, pigmentary changes, and a significantly increased risk of skin cancers</p> <p>Explain the genetic basis of XP, focusing on the defects in nucleotide excision repair (NER) pathways that lead to the accumulation of DNA damage</p> <p>Identify the diagnostic criteria and management strategies for XP, emphasizing the importance of early diagnosis and preventive measures to reduce UV exposure and manage skin lesions</p>
15	Syndromes with premature ageing	explain the pathophysiology of HGPS, including the role of the LMNA gene mutation, the production of progerin, and

		its impact on cellular aging processes
16	Hamartoneoplastic syndromes	describe the genetic basis, clinical manifestations, and diagnostic criteria of common hamartoneoplastic syndromes, such as Neurofibromatosis, Tuberous Sclerosis Complex, and Gorlin Syndrome
17	Inherited metabolic diseases	describe the clinical features of Phenylketonuria, including its dermatological manifestations such as decreased skin pigmentation, photosensitivity, and eczema
18	Inherited immunodeficiency	identify and describe the various skin manifestations associated with primary immunodeficiency disorders, such as bacterial, fungal, and viral infections, eczema, and other dermatological signs

At the end of this session, the student should be able to :		
Sno.	topic	Learning outcome
1.	Pruritus, prurigo and lichen simplex	explain how chronic pruritus leads to repetitive scratching or rubbing, resulting in conditions like prurigo nodularis and lichen simplex chronicus
2.	Mucocutaneous pain syndromes	accurately diagnose vulvodynia, differentiate it from other causes of vulvar pain, and develop a comprehensive management plan. This includes recognizing the clinical features, understanding the potential etiologies, and being familiar with both pharmacological and non-pharmacological treatment options.
3.	Neurological conditions	to identify and explain the dermatological signs associated with various neurological conditions, such as

Psychological sensory and neurological disorders

	affecting the skin	neurofibromatosis, tuberous sclerosis, and Parkinson's disease, and understand their clinical significance in diagnosing and managing these disorders
4.	Psychodermatology and psychocutaneous disease	recognize and explain the importance of a multidisciplinary approach in managing psychocutaneous diseases, integrating dermatological, psychiatric, and psychological perspectives to provide comprehensive patient care

SPECIFIC LEARNING OUTCOMES FOR FINAL(2ND)YEAR DIPLOMA
DERMATOLOGY

Skin disorders associated with specific cutaneous structures

At the end of this session, the student should be able to :

Sno.	topic	Learning outcome
1.	Acquired disorders of epidermal keratinization	describe the underlying mechanisms, clinical features, and differential diagnosis of acquired ichthyosis, including its association with systemic diseases and potential treatment options
2.	Acquired pigmentary disorders	describe the underlying mechanisms, clinical features, and differential diagnoses of common acquired pigmentary disorders such as melasma, post-inflammatory hyperpigmentation, and lichen planus pigmentosus
3.	Acquired disorders of hair	to identify the causes, clinical features, and management strategies for telogen effluvium
4.	Acne	explain the pathophysiology of acne, including the role of sebaceous gland activity, follicular

		hyperkeratinization, Propionibacterium acnes colonization, and inflammation
5.	Rosacea	identify and describe the clinical features, pathophysiology, and management strategies of rosacea, including recognizing common triggers and differentiating it from other dermatological conditions
6.	Hidradenitis suppurative	describe the underlying pathophysiological mechanisms of Hidradenitis Suppurativa, identify its common clinical features, and differentiate it from other dermatological conditions. This includes recognizing the chronic nature of the disease, its typical locations (intertriginous areas), and the impact on patients' quality of life.
7.	Other acquired disorders of the pilosebaceous unit	describe the pathophysiological mechanisms leading to acne vulgaris, including the role of increased sebum production, follicular hyperkeratinization, Propionibacterium acnes colonization, and inflammation
8.	Disorders of sweat glands	describe the underlying mechanisms, including the role of the autonomic nervous system, that lead to excessive

		sweating in hyperhidrosis
9.	Acquired disorders of nails and nail unit	Identify and differentiate between common acquired nail disorders, such as onychomycosis, paronychia, and psoriasis, and develop appropriate diagnostic and treatment plans for each condition.
10.	Acquired disorders of dermal connective tissue	Identify and differentiate between various acquired disorders of dermal connective tissue, such as scleroderma, systemic lupus erythematosus, and acquired perforating dermatosis, including their pathophysiology, clinical manifestations, diagnostic criteria, and management strategies
11.	Granulomatous disorders of the skin	accurately diagnose and differentiate between various granulomatous disorders of the skin, such as sarcoidosis, granuloma annulare, and necrobiosis lipoidica, through clinical examination and appropriate diagnostic tests, and formulate effective management plans for these conditions
12.	Sarcoidosis	accurately diagnose Sarcoidosis based on clinical presentation, radiological findings, and histopathological evidence

13.	Panniculitis	diagnose panniculitis by identifying its clinical features, understanding its pathophysiology, and differentiating it from other similar dermatological conditions through appropriate diagnostic tests
14.	Other acquired disorders of subcutaneous fat	Identify and differentiate various acquired disorders of subcutaneous fat, including their etiology, clinical manifestations, diagnostic criteria, and management strategies

VASCULAR DISORDERS INVOLVING SKIN		
At the end of this session students should be able to:		
Sno.	topic	Learning outcome
1.	Purpura	differentiate between various types of purpura (e.g., thrombocytopenic, non-thrombocytopenic) and identify their underlying etiologies, clinical

		presentations, and appropriate diagnostic approaches.
2.	Cutaneous vasculitis	diagnose cutaneous vasculitis by identifying its clinical features, understanding its pathophysiology, and interpreting relevant laboratory and histopathological findings.
3.	Dermatoses resulting from disorders of the veins and arteries	identify and manage common dermatoses associated with venous and arterial disorders, such as venous stasis dermatitis and livedo reticularis, including understanding their pathophysiology, clinical presentation, diagnostic criteria, and treatment options.
4.	Ulceration resulting from disorders of the veins and the arteries	differentiate between venous and arterial ulcers, including their pathophysiology, clinical presentation, and management strategies.
5.	Disorders of the lymphatic vessels	identify and describe the pathophysiology, clinical manifestations, and diagnostic approaches of common lymphatic vessel disorders, including lymphedema and lymphangitis
6.	Flushing and blushing	differentiate between the physiological and pathological causes of flushing and blushing, and apply this knowledge to accurately diagnose and manage common conditions associated with these symptoms in clinical practice

Skin disorders associated with specific sites sex and age

At the end of this session the student should be able to

Sno.	Topic	Learning outcome
1.	Dermatoses of the scalp	accurately diagnose and differentiate between common scalp dermatoses such as dandruff, seborrheic dermatitis, and psoriasis, and formulate appropriate management plans for each

		condition, including pharmacological and non-pharmacological treatments
2.	Dermatoses of external ear	to identify, diagnose, and formulate a management plan for common dermatoses affecting the external ear, including conditions such as eczema, psoriasis, and otitis externa.
3.	Dermatoses of the eye, eyelids and eyebrows	accurately diagnose and formulate a comprehensive management plan for common dermatoses affecting the eye, eyelids, and eyebrows, including conditions such as blepharitis, allergic contact dermatitis, and seborrheic dermatitis
4.	Dermatoses of the oral cavity and lips	accurately diagnose and formulate a comprehensive management plan for common dermatoses of the oral cavity and lips, including conditions such as oral lichen planus, pemphigus vulgaris, and cheilitis, by integrating clinical examination findings with relevant diagnostic tests and understanding the underlying pathophysiology
5.	Dermatoses of the male genitalia	accurately recognize and differentiate between common benign and malignant dermatoses of the

		male genitalia, understanding their clinical presentations, diagnostic criteria, and appropriate management strategies.
6.	Dermatoses of the female genitalia	Identify and Differentiate: Students will be able to identify and differentiate between common dermatoses affecting the female genitalia, such as lichen sclerosus, lichen planus, vulvar dermatitis, and psoriasis, based on their clinical presentations, histopathological features, and appropriate diagnostic methods
7.	Dermatoses of perineal and perianal skin	accurately diagnose and formulate a comprehensive management plan for common dermatoses affecting the perineal and perianal skin, including conditions such as psoriasis, lichen sclerosus, and contact dermatitis, while considering the impact on patient quality of life and addressing potential psychosocial concerns.
8.	Cutaneous complications of stomas and fistulae	identify, diagnose, and propose appropriate management strategies for common cutaneous complications associated with stomas and fistulae, including peristomal dermatitis, mucocutaneous separation, and fistula-related

		skin infections
9.	Dermatoses of pregnancy	identify, diagnose, and manage the common dermatoses of pregnancy, including pemphigoid gestationis, polymorphic eruption of pregnancy (PUPPP), atopic eruption of pregnancy, and intrahepatic cholestasis of pregnancy, with an emphasis on understanding their clinical features, differential diagnoses, and appropriate treatment options to ensure both maternal and fetal well-being
10.	Dermatoses of the neonate	recognize various skin conditions in newborns, understand their clinical significance, and know how to manage them effectively
11.	Dermatoses and haemangiomas of infancy	accurately diagnose and formulate a management plan for common infantile dermatoses and haemangiomas, including recognizing high-risk lesions that require prompt intervention and understanding the appropriate use of treatments such as topical and systemic therapies

Skin disorders caused by external agents:

At the end of this session students should be able to:

Sno.	topic	Learning outcome
1.	Benign cutaneous adverse reactions to drugs	Identify and manage common benign cutaneous adverse reactions to drugs, including maculopapular eruptions, urticaria, and fixed drug eruptions, by recognizing their clinical presentations, understanding the underlying mechanisms, and implementing appropriate treatment strategies to ensure patient safety and comfort
2.	Severe cutaneous adverse reactions to	Identify and manage common benign cutaneous adverse reactions to drugs, including maculopapular eruptions, urticaria, and fixed drug

	drugs	eruptions, by recognizing their clinical presentations, understanding the underlying mechanisms, and implementing appropriate treatment strategies to ensure patient safety and comfort
3.	Cutaneous side effects of chemotherapy and radiotherapy	Identify and manage the common cutaneous side effects of chemotherapy and radiotherapy, including recognizing early signs, understanding the underlying pathophysiology, and implementing appropriate treatment and preventive measures to improve patient quality of life
4.	Dermatoses induced by illicit drugs	Identify and describe the various cutaneous manifestations associated with the use of illicit drugs, including their pathophysiology, clinical presentation, and differential diagnosis.
5.	Dermatological manifestations of metal poisoning	to identify and describe the dermatological manifestations associated with common metal poisonings (such as arsenic, mercury, and lead), including their clinical presentations, diagnostic approaches, and underlying pathophysiological mechanisms.
6.	Mechanical injury to the skin	Describe the pathophysiology, clinical presentation, and initial management of various types of mechanical injuries to the skin, including abrasions, lacerations, and contusions.
7.	Pressure injury and pressure ulcers	identify, assess, and implement evidence-based prevention and management strategies for pressure injuries and pressure ulcers, ensuring comprehensive patient care and minimizing complications.
8.	Cutaneous reactions to cold and heat	identify and manage severe cutaneous adverse reactions such as Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN), including recognizing early signs, understanding pathophysiology, and initiating appropriate treatment protocols

9.	Burns and heat injury	assess and classify burn injuries, understand the principles of burn management, and implement initial and ongoing care strategies to optimize patient outcomes
10.	Cutaneous photosensitivity diseases	diagnose and manage cutaneous photosensitivity disorders, including identifying common triggers, understanding the underlying mechanisms, and applying preventive and therapeutic measures.
11.	Allergic contact dermatitis	identify and differentiate the clinical features and pathophysiology of allergic contact dermatitis, and develop appropriate management plans including patient education on allergen avoidance.
12.	Irritant contact dermatitis	recognize the causes and clinical manifestations of irritant contact dermatitis, and formulate effective treatment strategies to restore the skin barrier and prevent recurrence.
13.	Occupational dermatology	assess and manage dermatological conditions related to occupational exposures, including the identification of workplace hazards and implementation of preventive measures.
14.	Stings and bites	diagnose and treat various stings and bites, understanding the potential complications and providing appropriate first aid and long-term care

**Neoplastic ,proliferative
and infiltrative disorders
affecting the skin**

By the end of this topic
student should be able
to:

TOPIC

**learning
objective**

1. Benign melanocyte proliferation and melanocytic

Identify and differentiate common benign melanocytic lesions such as nevi (moles) and freckles, based on their clinical and dermatoscopic features

2. Benign keratinocytic acanthomas and proliferation

differentiate keratoacanthoma and other skin cancers based on clinical features and management strategies

Understand the Clinical Presentation and Management of Keratoacanthoma: Students should be able to identify the clinical features of keratoacanthoma, differentiate it from other similar lesions such as squamous cell carcinoma

3. Cutaneous cysts

Understand and differentiate between various types of cutaneous cysts, including their histological features, clinical presentations, and management strategies.

4. Lymphocytic infiltrates

understands the clinical and histopathological features of cutaneous lymphoid hyperplasia

5. Cutaneous histiocytoses

classify cutaneous histiocytoses into Langerhans cell histiocytosis and non-Langerhans cell histiocytosis, and describe their clinical manifestations, including common skin lesions and systemic involvement

6. Soft tissue tumors and tumor like conditions

identify the common clinical features of soft tissue tumors, differentiate between benign and malignant tumors, and outline the appropriate diagnostic steps, including imaging and biopsy techniques, to accurately diagnose and manage these conditions

7. Tumors of skin appendages

describe the clinical presentation, histopathological characteristics, and differential diagnosis of common skin appendage tumors

8. Kaposi sarcoma

identify the characteristic dermatological features of Kaposi Sarcoma, understand its pathophysiology, and differentiate it from other skin lesions

9. Cutaneous lymphomas

identify the clinical features of cutaneous lymphomas, including common presentations such as mycosis fungoides and Sézary syndrome

10. Basal cell carcinoma

describe the pathophysiology of BCC, identify its common clinical presentations, and understand the risk factors associated with its development

11. Squamous cell carcinoma and its precursors

Understand the Pathogenesis and Clinical Presentation of Squamous Cell Carcinoma and its Precursors

describe the pathogenesis of squamous cell carcinoma, including the role of UV radiation and genetic mutations

12. Melanomas

identify and diagnose various types of melanomas through clinical

examination and dermatoscopic evaluation, understanding the importance of early detection and the distinguishing features of malignant versus benign skin lesions

13. Melanoma clinicopathology

identify and describe the clinical presentations and histopathological characteristics of melanoma. This includes recognizing various subtypes, understanding the significance of Breslow thickness, Clark level, and other prognostic factors

14. Melanoma surgery

describe the indications, techniques, and post-operative care involved in the surgical treatment of melanoma, including wide local excision and sentinel lymph node biopsy

identify potential complications and the importance of early detection and multidisciplinary management in improving patient outcomes

15. Systemic treatment of melanoma

explain how immunotherapy (e.g., checkpoint inhibitors like pembrolizumab and nivolumab) and targeted therapy (e.g., BRAF and MEK inhibitors) have revolutionized the treatment of advanced melanoma by significantly improving survival rates and disease management

16. Dermoscopy of melanoma and naevi

differentiate between benign naevi and malignant melanoma using dermoscopic features, recognizing patterns such as asymmetry, border irregularity, color variation, and specific structures like atypical pigment networks and blue-white veils, to improve diagnostic accuracy and patient outcomes

17. Merkel cell carcinoma

identify the clinical features of MCC, including its typical presentation as a rapidly growing, painless, firm nodule on sun-exposed skin, often misdiagnosed as a benign lesion

18. Skin cancer in immunocompromised patient

Understand the increased risk and aggressive nature of skin cancer in immunocompromised patients, and the importance of early detection and tailored management strategies to improve patient outcomes

Systemic disease and the skin

By the end of this topic student should be able to:	LEARNING OUTCOME
1. Cutaneous markers of internal malignancy	Identify and interpret common cutaneous markers that may indicate underlying internal malignancies, such as acanthosis nigricans, dermatomyositis, and the sign of Leser-Trélat, and understand their clinical significance in early cancer detection and diagnosis.
2. The skin and the disorders of the haematopoietic and immune systems	Integrate knowledge of dermatological manifestations with underlying haematopoietic and immune disorders to diagnose and manage complex clinical cases
3. The skin and	Integrate clinical knowledge and skills to diagnose and manage

endocrine disorders	common skin and endocrine disorders
4. The skin and disorders of heart	Understand the interrelationship between skin manifestations and cardiovascular disorders, and develop the ability to diagnose and manage dermatological signs that may indicate underlying heart diseases.
5. The skin and the disorders of the respiratory system	Understand the Pathophysiological Link Between Skin Manifestations and Respiratory Disorders
6. The skin and the disorders of the digestive system	Understand the interrelationship between dermatological manifestations and gastrointestinal disorders, and be able to diagnose and manage common skin conditions associated with digestive system diseases.
7. The skin and the disorders of the kidney and urinary tract	Integrate knowledge of dermatological manifestations with underlying renal and urinary tract disorders to enhance diagnostic accuracy and

	patient management
8.The skin and the disorders of the musculoskeletal system	Integrate clinical knowledge and diagnostic skills to effectively identify, differentiate, and manage common dermatological conditions and musculoskeletal disorders, emphasizing a holistic approach to patient care

Aesthetic Dermatology

By the end of this topic student should be able to:

TOPIC

Learning Objectives

1. Skin ageing	Explain the changes in skin structure and function with ageing. Understand the role of oxidative stress, DNA damage, and inflammation in skin ageing
2. Cosmeceuticals	Define cosmeceuticals and differentiate them from pharmaceuticals and cosmetics
3. Soft tissue augmentation	Understand the indications and techniques of soft tissue augmentation
4. Aesthetic uses of botulinum toxins	Understand the mechanism and application of botulinum toxin in aesthetic medicine
5. Chemical peels	Explain the mechanism and clinical applications of chemical peels in aesthetic dermatology

6. Lasers and energy-based devices

understand the principals and applications of laser and energy based devices in aesthetic medicine

DETAILS OF COURSE CONTENTS

A. DERMATOLOGY

Educational Purpose:

To give the Trainee formal intensive instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of cutaneous disorders.

Content of required knowledge:

1. Understanding the morphology, differential diagnosis and management of disorders of the skin, mucous membranes, and adnexal structures, including inflammatory, infectious, neoplastic, metabolic, congenital, and structural disorders.
2. Competence in medical and surgical interventions and dermatopathology are important facets.
3. The general internist should have a general knowledge of the major diseases and tumors of the skin. He or she should be proficient at examining the skin; describing findings; and recognizing skin, signs of systemic diseases, normal findings (including benign growths of the skin), and common skin malignancies.

4. The general internist should be able to diagnose and manage a variety of common skin conditions and make referrals where appropriate.
5. These objectives will be taught through the didactic sessions and at bedside teaching as they relate to specific patients in the clinic and on the consult service:

The Trainee should learn the pathogenesis, diagnosis, and treatment of: Acne, Rosacea, Contact dermatitis, Atopic Dermatitis, Nummular eczema, Dyshidrotic eczema, Psoriasis, Seborrheic dermatitis, Pityriasis Rosea, Warts, Molluscum contagiosum, Herpes Simplex, Herpes Zoster, Impetigo, Folliculitis, Furuncles, Erythrasma, Tinea infections, Candida infections, Pityriasis Versicolor, Scabies, Cutaneous reaction to flea bites, Seborrheic keratosis, Keratoacanthoma, Moles, Blue nevus, Cherry angioma, Spider angioma, Pyogenic granuloma, Dermatofibroma, Keloids, Skin tags, Epidermoid cysts, Trichilemmal cysts, Miliium, Digital myxoid cyst, alopecia areata, Androgenic alopecia, Sun burn, dermatoheliosis, Solar Lentigo, Solar keratosis, Phototoxic reaction, Photoallergic reaction, Polymorphous Light Eruption, Lichen Planus, Granuloma annulare, Infectious exanthema, Rocky Mountain Spotted Fever, Rubella, Measles, Scarlet fever, Varicella, Sporotrichosis, Leprosy, Tuberculosis, Leishmaniasis, Lyme disease, Cellulitis, Gonorrhoea, Syphilis, Chancroid, Genital warts, Genital Herpes, Kaposi's Sarcoma, Erythroderma, Urticaria, Erythema multiforme, Erythema Nodosum, Lupus, Vasculitis, Sarcoidosis, Xanthelasma, Exanthematous Drug eruptions, Fixed drug eruptions, Vitiligo, Melasma, Melanoma, Basal Cell Carcinoma, Squamous Cell Carcinoma, Paget's disease.

Common Clinical Presentations

- Abnormalities of pigmentation
- Eruptions (eczematous, follicular, papulovesicular, vesicular, vesiculobullous)
- Hair loss
- Hirsutism
- Intertrigo

- Leg ulcer
- Mucous membrane ulceration
- Nail infections and deformities
- Pigmented lesion
- Pruritus
- Purpura
- Skin papule or nodule
- Verrucous lesion

Procedure Skills

- Application of chemical destructive agents for skin lesions e.g., warts and molluscum, condyloma
- Incision, drainage, and aspiration of fluctuant lesions for diagnosis or therapy
- Scraping of skin (for potassium hydroxide, mite examination)
- Skin biopsy
- Cryotherapy
- Primary Interpretation of Tests
- Microscopic examination for scabies, nits, etc.
- Tzanck smear
- Ordering and Understanding Tests

- Dark-field microscopy
- Fungal culture
- Skin biopsy

Attributes required other than knowledge:

Professionalism	Interpersonal and Communication Skills	Practice Based Learning Improvement	Evaluation of Medical Knowledge
<ul style="list-style-type: none"> • The Trainee should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty. • The Trainee must be willing to acknowledge errors and determine how to avoid future similar mistakes. • The Trainee must be responsible and reliable at all times. 	<ul style="list-style-type: none"> • The Trainee should learn when to call a sub specialist for evaluation and management of a patient with a dermatologic disease. • The Trainee should be able to clearly present the consultation cases to the staff in an organized and thorough manner • The Trainee must be able to establish a rapport with the patients and listens to the patient's complaints to promote the patient's welfare. • The Trainee should provide effective education and counseling 	<ul style="list-style-type: none"> • The Trainee should use feedback and self-evaluation in order to improve performance. • The Trainee should read the required material and articles provided to enhance learning. • The Trainee should use the medical literature 	<ul style="list-style-type: none"> • The Trainee's ability to answer directed questions and to participate in the didactic sessions. • The Trainee's presentation of assigned short topics. These will be examined for their completeness, accuracy, organization, and the Trainee's understanding of the topic. • The Trainee's ability to apply the information learned in the didactic sessions to the patient care setting. • The Trainee's interest level in

<ul style="list-style-type: none"> • The Trainee must always consider the needs of patients, families, colleagues, and support staff. • The Trainee must maintain a professional appearance at all times. 	<p>for patients.</p> <ul style="list-style-type: none"> • The Trainee must write organized and legible notes. • The Trainee must communicate any patient problems to the staff in a timely fashion. 	<p>search tools in the library to find appropriate articles related to interesting cases.</p>	<p>learning.</p> <ul style="list-style-type: none"> • The Trainee will take a pre and post test written and color slide exam. Improvement from one end of the rotation to the other should be realized.
---	---	---	--

Teaching Strategies:

- Trainee will see a wide variety of patients from various ages, socioeconomic, educational, and cultural backgrounds at dermatology clinic.
- Outpatients will be evaluated by the Trainee, and then discussed and seen with the dermatologist.
- All dermatology inpatient consults will be seen and discussed with the dermatologist.
- Weekly didactic teaching lectures
- The Trainee will be responsible for reviewing a current journal review article on a dermatology topic.
- Can be asked to do some simple research on a dermatology topic.
- Short presentations on the given dermatology topics.
- Clinico pathological conferences
- Skill teaching in ward settings and procedure rooms
- Journal club meeting'
- Case based learning

- Problem based learning

Assessment:

- OSCE
- MCQs
- SEQs
- Long case
- Short case

Evaluation/Feedback:

- 360 degree evaluation to judge the professionalism, ethics
- The faculty will fill out the standard evaluation form using the criteria for evaluations of the Trainee in the required competencies related to dermatology.
- The Trainee will fill out an evaluation of the dermatology rotation at the end of the month. Any constructive criticism, improvements, or suggestions to further enhance the training in dermatology are welcome at any time.
- The Trainee should receive frequent (generally daily) feedback in regards to his or her performance during the dermatology rotation.
- The Trainee will be informed about the results of the evaluation process, and input will be requested from the Trainee in regards to his or her evaluation of the dermatology rotation.
- The faculty is encouraged to use the “early concern” and “praise card” throughout the rotation.
- A formal evaluation and verbal discussion with the Trainee is to be done at the end of the rotation.

Suggested readings:

1. Mandatory Reading: Fitzpatrick T. *Color Atlas and Synopsis of Clinical Dermatology*
2. MKSAP booklet on Dermatology
3. Medical Literature: A collection of updated review articles will also be provided which address basic areas of dermatology. The Trainee is strongly encouraged to read as many of these articles as possible.

SECTION – 4: workshops

WORKSHOPS

WORKSHOPS (3 hours each for 2-5 days)

S.NO	NAME OF THE WORKSHOP	LEARNING OBJECTIVES	TOPICS TO BE COVERED
1.	Introduction to computer/Information	By the end of this workshop student should be able to:	1. Hardware and Software <ul style="list-style-type: none">• Understand the main components of a computer,

	<p>Technology & Software(5 days)</p>	<ul style="list-style-type: none"> • Appropriately start up and shut down your computer. • Navigate the operating system and start applications. • Perform basic functions of file management. • Perform basic functions in a word processor and spreadsheet. • Manage print settings and print documents. • Receive and send email. • Use a web browser to navigate the Internet. • work with windows, toolbars, and command menus • perform basic word processing and graphic tasks • make a Power Point presentation • explore Web browsing basics • back up files • save, copy, and organize your work • to enter data accurately in software of Statistical Package for Social 	<p>including input and output devices.</p> <ul style="list-style-type: none"> • Understand the function of communication devices such as smartphones and tablets. • Understand the role of Operating Systems, programs and apps. <p>2.Windows</p> <ul style="list-style-type: none"> • Turning on the computer and logging on. • The Windows screen. • Running programs from the Start Menu. • Minimising, maximising, moving, resizing and closing windows. • Logging off and shutting down your computer. <p>3.Working with Programs</p> <ul style="list-style-type: none"> • Running multiple programs. • Desktop icons and creating a desktop shortcut. • Managing programs from the taskbar. • Closing programs. <p>4.File Management</p> <ul style="list-style-type: none"> • Managing Windows Explorer. • Creating, moving, renaming and deleting folders and files. • Understandings file extensions.
--	---	---	---

		Sciences	<ul style="list-style-type: none">• Viewing storage devices and network connections.• Managing USB flash drives. <p>5. Word Processing</p> <ul style="list-style-type: none">• Creating documents in Microsoft Word.• Typing text, numbers and dates into a document.• Easy formatting.• Checking the spelling in your document.• Making and saving changes to your document. <p>□</p> <p>6. Power Point</p> <p>Making Power Point presentation</p> <p>7. Spreadsheets</p> <ul style="list-style-type: none">• Understanding spreadsheet functionality.
--	--	----------	--

			<ul style="list-style-type: none">• Creating spreadsheets in Microsoft Excel.• Typing text numbers and dates into a worksheet.• Easy formulas.• Easy formatting.• Charting your data.• Making and saving changes to your workbook.• Printing a worksheet. <p>8.Printing</p> <ul style="list-style-type: none">• Print preview.• Print settings.• Managing the print queue. <p>9.Using Email</p> <ul style="list-style-type: none">• The Outlook mail screen elements.• Composing and sending an email message.• Managing the Inbox. <p>10.Accessing the Internet</p> <ul style="list-style-type: none">• Going to a specific website and bookmarking.• Understanding how to search/Google effectively.• Copy and paste Internet content into your documents and emails.• Stopping and refreshing pages.
--	--	--	--

			<ul style="list-style-type: none">• Demystifying the Cloud.• Understanding social media platforms such as Facebook and Twitter.• Computer security best practices. <p>11.Statistical Package for Social Sciences</p> <ul style="list-style-type: none">• general understanding for data entry <p><input type="checkbox"/></p>
--	--	--	---

3.	communication skills (3 days)	<ul style="list-style-type: none">• To learn to use Non-medical Interventions in Communication Skills of Clinical Practice• To discuss the importance of counseling• To role play as a counselor• To learn to manage a conflict	<ol style="list-style-type: none">1. Use of Non-medical Interventions in Clinical Practice Communication Skills2. Counseling3. Informational Skills4. Crisis Intervention/Disaster5. Management Conflict Resolution6. Breaking Bad News
-----------	--	--	--

		<p>resolution</p> <ul style="list-style-type: none">• To learn to break a bad news• To discuss the importance of Dermatological Ethics, Professionalism and Doctor-Patient Relationship Hippocratic Oath• To learn to take an informed consent• To illustrate the importance of confidentiality• To summarize Ethical Dilemmas in a Doctor's Life	<ol style="list-style-type: none">7. Dermatological Ethics, Professionalism and Doctor-Patient Relationship Hippocratic Oath8. Four Pillars of Dermatological Ethics (Autonomy, Beneficence, Non-maleficence and Justice)9. Informed Consent and Confidentiality10. Ethical Dilemmas in a Doctor's Life
--	--	---	--

<p>4.</p>	<p>Clinical Audit(2 days)</p> <p>(Workshop is specific for DIPLOMA Dermatology only)</p>	<p>Road Map for workshop:</p> <ol style="list-style-type: none"> 1. Step 1:Topic selection 2. Step 2: Setting of criteria and standards 3. Step 3: First data collection 4. Step 4: Evaluation and comparison with criteria and standards 5. Step 5: Implementation of change 6. Step 6: Second data collection – evaluation of change <p>The following are factors that may affect your choice of audit topic:</p> <ul style="list-style-type: none"> • Strong impact on health • Convincing evidence available about appropriate care • Common condition which can be clearly defined • Good reasons of believing that current performance can be improved • Readily accessible data which can be 	<ol style="list-style-type: none"> 1. To understand clinical audit process. To help clinicians decide exactly why they are doing a particular audit and what they want to achieve through carrying out the audit. 2. To determine, how clinical audit relates to other activities related to accountability for the quality and safety of patient care. 3. To select the right subject for audit. 4. To use evidence of good practice in designing clinical audits. 5. To help clinicians formulate measures of quality based on evidence of good practice, as the basis for data collection and also to develop data collection protocols and tools and advise on data collection for clinical audits. 6. To help in understanding how to handle data protection issues related to clinical audit. 7. To understand use of statistics for analyzing and presenting findings of data collection and thus help clinicians to analyze causes of problems that are affecting the quality of care. This helps in applying principles and strategies for taking action to achieve changes in clinical practice.
-----------	---	--	---

		collected within a reasonable length	
--	--	--------------------------------------	--

		<p>of time</p> <ul style="list-style-type: none">• Consensus on the audit topic among the practice members	<ol style="list-style-type: none">8. To help clinicians manage review of clinical audit findings with their colleagues.9. To be able to prepare clinical audit reports.10. To recognize and handle ethics issues related to clinical audit.
--	--	--	---

5.	<p>Basic Cardiac Life Support</p> <p>(4 days)</p> <p>(Workshop is specific for DIPLOMA Dermatology only)</p>	<p>Upon successful completion of the workshop, the student will be able to:</p> <ul style="list-style-type: none"> • Recognize and initiate early management of pre-arrest conditions that may result in cardiac arrest or complicate resuscitation outcome • Demonstrate proficiency in providing BLS care, including prioritizing chest compressions and integrating automated external defibrillator (AED) use • Recognize and manage respiratory arrest • Recognize and manage cardiac arrest until termination of resuscitation or transfer of care, including immediate post-cardiac arrest care • Recognize and initiate early management of ACS, including appropriate disposition • Recognize and initiate early management of stroke, including appropriate disposition • Demonstrate effective communication as a member or leader of a resuscitation team and 	<p>The workshop is designed to give students the opportunity to practice and demonstrate proficiency in the following skills used in resuscitation:</p> <ol style="list-style-type: none"> 1. Systematic approach 2. High-quality BLS 3. Airway management 4. Rhythm recognition 5. Defibrillation 6. Intravenous (IV)/intraosseous (IO) access (information only) 7. Use of medications 8. Cardioversion 9. Transcutaneous pacing 10. Team dynamics 11. Reading and interpreting electrocardiograms (ECGs) <ul style="list-style-type: none"> - Be able to identify—on a monitor and paper tracing—rhythms associated with bradycardia, tachycardia with adequate perfusion, tachycardia with poor perfusion, and pulseless arrest. These rhythms include but are not limited to: <ul style="list-style-type: none"> ○ Normal sinus rhythm ○ Sinus bradycardia ○ Type I second-degree AV block
----	--	--	--

		<p>recognize the impact of team dynamics on overall team</p>	<ul style="list-style-type: none">○ Type II second-degree AV block○ Third-degree AV block○ Sinus tachycardia○ Supraventricular tachycardias○ Ventricular tachycardia○ Asystole
--	--	--	---

		performance	<ul style="list-style-type: none">○ Ventricular fibrillation○ Organized rhythm without a pulse <p>12. Basic understanding of the essential drugs used in:</p> <ul style="list-style-type: none">○ Cardiac arrest○ Bradycardia○ Tachycardia with adequate perfusion○ Tachycardia with poor perfusion○ Immediate post–cardiac arrest care
--	--	-------------	--

SECTION 5: ROTATION SCHEDULE

Revised rotation schedule for DIPLOMA Dermatology is summarized below

1st year	2nd year (final)
Dermatology (12 months)	Plastic surgery (1 month), Leprosy (2 weeks), Laser (2 weeks) To be completed in last 2 nd year of training

Section 6: Milestones and EPA's

Charting the Road to Competence: Developmental Milestones for Diploma in Dermatology Program at Rawalpindi Medical University

“Remember to celebrate for the milestones as you prepare for the road ahead” ----Nelson Mandela.

High-quality assessment of Trainee performance is needed to guide individual Trainee' development and ensure their preparedness to provide patient care. To facilitate this aim, reporting milestones are now required across all Dermatology programs. Milestones promote competency-based training dermatology. Diploma program directors may use them to track the progress of trainees in the 6 general competencies including *patient care, Medical Knowledge, Practice-Based Learning and Improvement, Interpersonal and Communication Skills, Professionalism and Systems-Based Practice*. Milestones inform decisions regarding promotion and readiness for independent practice. In addition, the milestones may guide curriculum development, suggest specific assessment strategies, provide benchmarks for Trainee self-directed assessment-seeking, assist remediation by facilitating identification of specific deficits, and provide a degree of national standardization in evaluation. Finally, by explicitly enumerating the profession's expectations for graduates, they may improve public accountability for Diploma training.

Table-1 Developmental Milestones for Dermatology Training— Patient Care			
Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
<i>A. Clinical skills and reasoning</i>	<i>Historical data gathering</i>		
<ul style="list-style-type: none"> • Manage patients using clinical skills of interviewing and physical examination • Demonstrate 	1. Acquire accurate and relevant history from the patient in an efficiently customized, prioritized, and hypothesis driven fashion	8	<ul style="list-style-type: none"> • Standardized patient • Direct observation

competence in the performance of procedures <ul style="list-style-type: none">• Appropriately use laboratory and imaging techniques	2. Seek and obtain appropriate, verified, and prioritized data from secondary sources (eg, family, records, pharmacy)	12	
	3. Obtain relevant historical subtleties that inform and prioritize both differential diagnoses and diagnostic plans, including sensitive, complicated, and detailed information that may not often be volunteered by the patient	24	
	4. Role model gathering subtle and reliable information from the patient for junior members of the health care team	40	

	<i>Performing a physical examination</i>		
	1. Perform an accurate physical examination that is appropriately targeted to the patient's complaints and medical conditions. Identify pertinent abnormalities using common maneuvers	8	<ul style="list-style-type: none"> • Standardized patient direct observation • Simulation
	2. Accurately track important changes in the physical examination over time in the outpatient and inpatient settings	12	
	3. Demonstrate and teach how to elicit important physical findings for junior members of the health care team	24	
	4. Routinely identify subtle or unusual physical findings that may influence clinical decision making, using advanced maneuvers	40	

	where applicable		
<i>Clinical reasoning</i>			
	1. Synthesize all available data, including interview, physical examination, and preliminary laboratory data, to define each patient's central clinical problem	16	<ul style="list-style-type: none"> • Chart-stimulated recall • Direct observation • Clinical vignettes
	2. Develop prioritized differential diagnoses, evidence- based diagnostic and therapeutic plan for common inpatient and ambulatory conditions	32	
	3. Modify differential diagnosis and care plan based on clinical course and data as appropriate	32	
	4. Recognize disease presentations that deviate from common patterns and that require complex decision making	48	

<i>Invasive procedures</i>			
	1. Appropriately perform invasive procedures and provide post-procedure management for common procedures	24	<ul style="list-style-type: none"> • Simulation • Direct observation
<i>Diagnostic tests</i>			
<p><i>B. Delivery of patient-centered clinical care</i></p> <ul style="list-style-type: none"> • Manage patients with progressive responsibility • Manage patients across the spectrum of clinical diseases seen in the practice of general internal medicine 	1. Make appropriate clinical decisions based on the results of common diagnostic testing, including but not limited to routine blood chemistries, hematologic studies, coagulation tests, ECG, chest radiographs, Auto-refraction, Cycloplegic refraction, FFA, A-scan, B-scan, Intra-ocular pressure, Keratometry, Perimetry and Gonioscopy	16	<ul style="list-style-type: none"> • Chart-stimulated recall • Standardized tests • Clinical vignettes
	2. Make appropriate clinical decision based on the results of more advanced diagnostic	24	

<ul style="list-style-type: none"> • Manage patients in a variety of health care settings to include the inpatient ward, critical care units, the ambulatory setting, and the emergency setting • Manage undifferentiated acutely and severely ill patients • Manage patients in the prevention, counseling, detection, diagnosis, and treatment of gender-specific diseases 	tests		
	Patient management		
	1. Recognize situations with a need for urgent or emergent medical care and/or surgical care.	8	<ul style="list-style-type: none"> • Simulation • Chart-stimulated recall • Multisource feedback • Direct observation • Chart audit
	2. Recognize when to seek additional guidance	8	
	3. Provide appropriate preventive care and teach patient regarding self-care	-	
	4. With supervision, manage patients with common clinical disorders seen in the practice of inpatient department.	16	
5. With minimal supervision, manage patients with common and complex clinical disorders seen in the			

<input type="checkbox"/> Manage patients as a consultant to other physician	practice.	16		
	6. Initiate management and stabilize patients with emergent conditions	16		
	7. Manage patients with conditions that require intensive care	48		
	8. Independently manage patients with a broad spectrum of clinical disorders seen in the practice of Dermatology.	48		
	9. Manage complex or rare ophthalmological conditions	48		
	10. Customize care in the context of the patient's preferences and overall health	48		
	<i>Consultative care</i>			
	1. Provide specific,	32	• Simulation	

	responsive consultation to other services		<ul style="list-style-type: none">• Chart-stimulated recall• Multisource feedback• Direct observation• Chart audit
	2. Provide ophthalmological consultation for patients with more complex clinical problems requiring detailed risk assessment	48	

Table-2 Developmental Milestones for Dermatology Training— Medical Knowledge			
Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
<p>A. Core knowledge of Dermatology</p> <ul style="list-style-type: none"> • Demonstrate a level of expertise in the knowledge of those areas appropriate for an internal medicine specialist • Demonstrate sufficient knowledge to treat dermatological conditions commonly managed by 	<i>Knowledge of core content</i>		
	1. Understand the relevant pathophysiology and basic science for common conditions	8	<ul style="list-style-type: none"> • Direct observation • Chart audit • Chart-stimulated recall
	2. Demonstrate sufficient knowledge to diagnose and treat common conditions that require hospitalization	16	<ul style="list-style-type: none"> • Standardized tests
	3. Demonstrate sufficient knowledge to evaluate common conditions	24	
	4. Demonstrate sufficient knowledge to diagnose and treat	24	

internists, provide basic preventive care, and recognize and provide initial management of emergency problems	undifferentiated and emergent conditions		
	5. Demonstrate sufficient knowledge to provide preventive care	24	
	6. Demonstrate sufficient knowledge to identify and treat conditions that require intensive care	32	
	7. Demonstrate sufficient knowledge to evaluate complex or rare conditions and multiple coexistent conditions	48	
	8. Understand the relevant pathophysiology and basic science for uncommon or complex conditions	48	
	9. Demonstrate sufficient knowledge of sociobehavioral sciences including but not limited to health	48	

	care economics, medical ethics, and medical education		
B. Common modalities used in the practice of Dermatology & Demonstrate sufficient knowledge to interpret basic clinical tests and images, use common pharmacotherapy, and appropriately use and perform diagnostic and therapeutic procedures.	Diagnostic tests		
	1. Understand indications for and basic interpretation of common diagnostic testing, including but not limited to routine blood chemistries, hematologic studies, coagulation tests, ECG, chest radiographs, Auto-refraction, Cycloplegic refraction, FFA, A-scan, B-scan, Intra-ocular pressure, Keratometry, Perimetry and Gonioscopy	16	<ul style="list-style-type: none"> • Chart-stimulated recall • Standardized tests • Clinical vignettes

	2. Understand indications for and has basic skills in interpreting more advanced diagnostic tests	24	
	3. Understand prior probability and test performance characteristics	24	

Table-3 Developmental Milestones for Dermatology Training— Practice-Based Learning and Improvement

Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
<p>A. Learning and improving via audit of performance & Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement</p>	<i>Improve the quality of care for a panel of patients</i>		
	<p>1. Appreciate the responsibility to assess and improve care collectively for a panel of patients</p>	16	<ul style="list-style-type: none"> • Several elements of quality improvement project • Standardized tests
	<p>2. Perform or review audit of a panel of patients using standardized, disease-specific, and evidence- based criteria</p>	32	
	<p>3. Reflect on audit compared with local or national benchmarks and explore possible explanations for deficiencies, including doctor-related, system-related, and patient related factors</p>	32	
	<p>4. Identify areas in Trainee’s own practice and local system that can be changed to improve</p>	48	

	effect of the processes and outcomes of care		
	5. Engage in a quality improvement intervention	48	
<p>B. Learning and improvement via answering clinical questions from patient scenarios</p> <ul style="list-style-type: none"> • Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems; • Use information technology to optimize learning 	<ul style="list-style-type: none"> • Ask answerable questions for emerging information needs 		
	1. Identify learning needs (clinical questions) as they emerge in patient care activities	16	<ul style="list-style-type: none"> • Evidence-based medicine • evaluation instruments EBM mini-CEX • Chart-stimulated recall
	2. Classify and precisely articulate clinical questions	32	
	3. Develop a system to track, pursue, and reflect on clinical questions	32	
	<i>Acquires the best evidence</i>		
	1. Access medical information resources to answer clinical questions and support decision making	16	<ul style="list-style-type: none"> • Evidence-based medicine • evaluation instruments • EBM, mini-CEX, Chart-stimulated recall
	2. Effectively and efficiently search NLM database for original clinical research articles	16	
	3. Effectively and efficiently search evidence- based summary medical	32	

	information resources		
	4. Appraise the quality of medical information resources and select among them based on the characteristics of the clinical question	48	
	<i>Appraises the evidence for validity and usefulness</i>		
	1. With assistance, appraise study design, conduct, and statistical analysis in clinical research papers	16	<ul style="list-style-type: none"> • Evidence-based medicine • evaluation instruments EBM mini-CEX • Chart-stimulated recall
	2. With assistance, appraise clinical guidelines	32	
	3. Independently appraise study design, conduct, and statistical analysis in clinical research papers	48	
	4. Independently, appraise clinical guideline recommendations for bias and cost-benefit considerations	48	
	<i>Applies the evidence to decision-making for individual patients</i>		
	1. Determine if clinical evidence can be generalized to an individual patient	16	<ul style="list-style-type: none"> • Evidence-based medicine • evaluation instruments EBM mini-CEX
	2. Customize clinical evidence for an	32	

	individual patient		<ul style="list-style-type: none"> • Chart-stimulated recall
	3. Communicate risks and benefits of alternatives to patients	48	
	4. Integrate clinical evidence, clinical context, and patient preferences into decision making	48	
C. Learning and improving via feedback and self-assessment <ul style="list-style-type: none"> • Identify strengths, deficiencies, and limits in one's knowledge and expertise • Set learning and improvement goals • Identify and perform appropriate learning activities • Incorporate formative evaluation feedback into daily practice • Participate in the education of patients, families, students, Trainee, and other health 	<i>Improves via feedback</i>		
	1. Respond welcomingly and productively to feedback from all members of the health care team including faculty, peer Trainee, students, nurses, allied health workers, patients, and their advocates	16	<ul style="list-style-type: none"> • Multisource feedback • Self-evaluation forms with action plans
	2. Actively seek feedback from all members of the health care team	24	
	3. Calibrate self-assessment with feedback and other external data	32	
	4. Reflect on feedback in developing plans for improvement	32	
	<i>Improves via self-assessment</i>		
	1. Maintain awareness of the situation in the moment, and respond to meet situational needs	32	<ul style="list-style-type: none"> • Multisource feedback • Reflective practice surveys

professionals	2. Reflect (in action) when surprised, applies new insights to future clinical scenarios, and reflects (on action) back on the process	48	
	<i>Participates in the education of all members of the health care team</i>		
	1. Actively participate in teaching conferences	16	<ul style="list-style-type: none"> • OSCE with standardized learners Direct observation • Peer evaluations
	2. Integrate teaching, feedback, and evaluation with supervision of interns' and students' patient care	32	
3. Take a leadership role in the education of all members of the health care team.	48		

Table-4 Developmental Milestones for Dermatology Training— Interpersonal and Communication Skills			
Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
<u>A. Communicate effectively:</u>	<i>Communicate effectively</i>		
<ul style="list-style-type: none"> • Patients and family 	1. Provide timely and comprehensive verbal and written communication to patients/advocates	16	<ul style="list-style-type: none"> • Multisource feedback • Patient surveys

Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds	2. Effectively use verbal and nonverbal skills to create rapport with patients/families	16	<ul style="list-style-type: none"> • Direct observation • Mentored self-reflection
	3. Use communication skills to build a therapeutic relationship		
	4. Engage patients /advocates in shared decision making for uncomplicated diagnostic and therapeutic scenarios	32	
	5. Use patient-centered education strategies	32	
	6. Engage patients /advocates in shared decision making for difficult, ambiguous, or controversial scenarios	48	
	7. Appropriately counsel patients about the risks and benefits of tests and procedures, highlighting cost awareness and resource allocation	48	
	8. Role model effective communication skills in challenging situations	48	
	<i>Intercultural sensitivity</i>		
	1. Effectively use an interpreter to engage patients in the clinical setting, including patient education	8	

	2. Demonstrate sensitivity to differences in patients including but not limited to race, culture, gender, sexual orientation, socioeconomic status, literacy, and religious beliefs	16	<ul style="list-style-type: none"> Mentored self-reflection
	3. Actively seek to understand patient differences and views and reflects this in respectful communication and shared decision-making with the patient and the healthcare team	40	
<p><u>B. Physicians and other health care professionals</u></p> <ul style="list-style-type: none"> Communicate effectively with physicians, other health professionals, and health-related agencies Work effectively as a member or leader of a health care team or other professional 	<i>Transitions of care</i>		
	1. Effectively communicate with other caregivers in order to maintain appropriate continuity during transitions of care	16	<ul style="list-style-type: none"> Multisource feedback Direct observation Sign-out form ratings Patient surveys
	2. Role model and teach effective communication with next caregivers during transitions of care	32	
<i>Interprofessional team</i>			
<ul style="list-style-type: none"> Act in a consultative role to other physicians and health professionals 	1. Deliver appropriate, succinct, hypothesis-driven oral presentations	8	<ul style="list-style-type: none"> Multisource feedback
	2. Effectively communicate plan of care to all members of the health care team	16	

	3. Engage in collaborative communication with all members of the health care team	40	
	<i>Consultation</i>		
	1. Request consultative services in an effective manner	8	<ul style="list-style-type: none"> • Multisource feedback • Chart audit
	2. Clearly communicate the role of consultant to the patient, in support of the primary care relationship	16	
	3. Communicate consultative recommendations to the referring team in an effective manner	48	
<u>C. Medical records</u>	<i>Health records</i>		
<ul style="list-style-type: none"> • Maintain comprehensive, timely, and legible medical records 	1. Provide legible, accurate, complete, and timely written communication that is congruent with medical standards	8	<ul style="list-style-type: none"> • Chart audit
	2. Ensure succinct, relevant, and patient-specific written communication	32	

Table-5 Developmental Milestones for Dermatology Training— Professionalism

Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
<p>A. <u>Physicianship</u></p> <p>Demonstrate compassion, integrity, and respect for others responsiveness to patient needs that supersedes self-interest</p> <p>Accountability to patients, society, and the profession</p>	<i>Adhere to basic ethical principles</i>		
	1. Document and report clinical information truthfully	1.5	<ul style="list-style-type: none"> • Multisource feedback
	2. Follow formal policies	1.5	
	3. Accept personal errors and honestly acknowledge them	8	
	4. Uphold ethical expectations of research and scholarly activity	48	
	<i>Demonstrate compassion and respect to patients</i>		
	1. Demonstrate empathy and compassion to all patients	4	<ul style="list-style-type: none"> • Multisource feedback
	2. Demonstrate a commitment to relieve pain and suffering	4	
	3. Provide support (physical, psychological, social, and spiritual) for dying patients and their families	32	

	4. Provide leadership for a team that respects patient dignity and autonomy	32	
	<i>Provide timely, constructive feedback to colleagues</i>		
	1. Communicate constructive feedback to other members of the health care team	16	<ul style="list-style-type: none"> • Multisource feedback • Mentored self- reflection • Direct observation
	2. Recognize, respond to, and report impairment in colleagues or substandard care via peer review process	24	
	<i>Maintain accessibility</i>		
	1. Respond promptly and appropriately to clinical responsibilities including but not limited to calls and pages	1.5	<ul style="list-style-type: none"> • Multisource feedback
	2. Carry out timely interactions with colleagues, patients, and their designated caregivers	8	
	<i>Recognize conflicts of interest</i>		
	1. Recognize and manage obvious conflicts of interest, such as caring for family members and professional associates as patients	8	<ul style="list-style-type: none"> • Multisource feedback • Mentored self- reflection • Clinical vignettes

	2. Maintain ethical relationships with industry	40	
	3. Recognize and manage subtler conflicts of interest	40	
Demonstrate personal accountability			
	1. Dress and behave appropriately	1.5	<input type="checkbox"/> Multisource feedback <input type="checkbox"/> Direct observation
	2. Maintain appropriate professional relationships with patients, families, and staff	1.5	
	3. Ensure prompt completion of clinical, administrative, and curricular tasks	8	
	4. Recognize and address personal, psychological, and physical limitations that may affect professional performance	16	
	5. Recognize the scope of his/her abilities and ask for supervision and assistance appropriately	16	
	6. Serve as a professional role model for more junior colleagues (eg, medical students, interns)	40	

	7. Recognize the need to assist colleagues in the provision of duties	40	
<i>Practice individual patient advocacy</i>			
	1. Recognize when it is necessary to advocate for individual patient needs	8	<input type="checkbox"/> Multisource feedback <input type="checkbox"/> Direct observation
	2. Effectively advocate for individual patient needs	40	
<i>Comply with public health policies</i>			
	1. Recognize and take responsibility for situations where public health supersedes individual health (eg, reportable infectious diseases)	32	<ul style="list-style-type: none"> • Multisource feedback
<u>B. Patient-centeredness</u> <ul style="list-style-type: none"> • Respect for patient privacy and autonomy Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation	<i>Respect the dignity, culture, beliefs, values, and opinions of the patient</i>		
	1. Treat patients with dignity, civility and respect, regardless of race, culture, gender, ethnicity, age, or socioeconomic status	1.5	<input type="checkbox"/> Multisource feedback <input type="checkbox"/> Direct observation
	2. Recognize and manage conflict when patient values differ from their own	40	
	<i>Confidentiality</i>		
	1. Maintain patient confidentiality	1.5	<input type="checkbox"/> Multisource feedback

	2. Educate and hold others accountable for patient confidentiality	24	<input type="checkbox"/> Chart audits
	<i>Recognize and address disparities in health care</i>		
	1. Recognize that disparities exist in health care among populations and that they may impact care of the patient	16	<input type="checkbox"/> Multisource feedback <input type="checkbox"/> Direct observation <input type="checkbox"/> Mentored self- reflection
	2. Embrace physicians' role in assisting the public and policy makers in understanding and addressing causes of disparity in disease and suffering	40	
3. Advocates for appropriate allocation of limited health care resources.	40		

Table-6 Developmental Milestones for Dermatology Training— Systems-Based Practice

Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve	General Evaluation Strategies Assessment Methods/ Tools
------------	---	---	---

		Stage (months)	
<p>A. <u>Work effectively with other care providers and settings</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Work effectively in various health care delivery settings and systems relevant to their clinical practice <input type="checkbox"/> Coordinate patient care within the health care system relevant to their clinical specialty <input type="checkbox"/> Work in interprofessional teams to enhance patient safety and improve patient care quality <input type="checkbox"/> Work in teams and effectively transmit necessary clinical information to ensure safe and proper care of patients, including the transition of care between settings 	<i>Works effectively within multiple health delivery systems</i>		
	1. Understand unique roles and services provided by local health care delivery systems.	16	<ul style="list-style-type: none"> <input type="checkbox"/> Multisource feedback <input type="checkbox"/> Chart-stimulated recall <input type="checkbox"/> Direct observation
	2. Manage and coordinate care and care transitions across multiple delivery systems, including ambulatory, subacute, acute, rehabilitation, and skilled nursing.	32	
	3. Negotiate patient-centered care among multiple care providers.	48	
	<i>Works effectively within an interprofessional team</i>		
	1. Appreciate roles of a variety of health care providers, including but not limited to consultants, therapists, nurses, home care workers, pharmacists, and social workers.	8	<ul style="list-style-type: none"> • Multisource feedback • Chart-stimulated recall • Direct observation
	2. Work effectively as a member within the interprofessional team to ensure safe patient care.	8	

	3. Consider alternative solutions provided by other teammates	16	
	4. Demonstrate how to manage the team by using the skills and coordinating the activities of interprofessional team members.	48	
B. <u>Improving health care delivery</u>	<i>Recognizes system error and advocates for system improvement</i>		
<ul style="list-style-type: none"> • Advocate for quality patient care and optimal patient care systems • Participate in identifying system errors and implementing potential system solutions • Recognize and function effectively in high-quality care system 	1. Recognize health system forces that increase the risk for error including barriers to optimal patient care	16	<input type="checkbox"/> Multisource feedback <input type="checkbox"/> Quality improvement project
	2. Identify, reflect on, and learn from critical incidents such as near misses and preventable medical errors	16	
	3. Dialogue with care team members to identify risk for and prevention of medical error	32	
	4. Understand mechanisms for analysis and correction of systems errors	32	
	5. Demonstrate ability to understand and engage in a system-level quality improvement intervention.	48	

	6. Partner with other health care professionals to identify, propose improvement opportunities within the system.	48	
<p><i>C. <u>Cost-effective care for patients and populations</u></i></p> <p>& Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population- based care as appropriate</p>	<i>Identifies forces that impact the cost of health care and advocates for cost-effective care</i>		
	1. Reflect awareness of common socioeconomic barriers that impact patient care.	16	<input type="checkbox"/> Standardized examinations <input type="checkbox"/> Direct observation <input type="checkbox"/> Chart-stimulated recall
	2. Understand how cost-benefit analysis is applied to patient care(ie, via principles of screening tests and the development of clinical guidelines)	16	
	3. Identify the role of various health care stakeholders including providers, suppliers, financiers, purchasers, and consumers and their varied impact on the cost of and access to health care.	32	
	4. Understand coding and reimbursement principles.	32	
	<i>Practices cost-effective care</i>		
	1. Identify costs for common diagnostic or therapeutic tests.	8	<ul style="list-style-type: none"> • Chart-stimulated recall
	2. Minimize unnecessary care including tests, procedures, therapies, and	8	

ambulatory or		
3. Demonstrate the incorporation of cost-awareness principles into standard clinical judgments and	24	
4. Demonstrate the incorporation of cost-awareness principles into complex clinical scenarios	48	

References of Mile stones

<https://www.acgme.org/globalassets/PDFs/Milestones/dermatologyMilestones.pdf>

<http://education.med.ufl.edu/files/2010/10/InternalMedicineMilestones.pdf>

Entrustable Professional Activities (EPAs)

Entrustable Professional Activities (EPAs) for a two-year Dermatology Diploma program are essential in defining the specific tasks Trainee should be able to perform independently by the end of their training. These EPAs are aligned with clinical core competencies and are designed to ensure that Trainee progressively develop their skills and knowledge throughout their diploma program.

Levels of EPA

- 1) Be present and observe or Assist
- 2) Direct pro-active Supervision: The supervisor is physically present with the Trainee and the patient.
- 3) Indirect re-active Supervision is broken down into two levels: Direct Supervision Immediately Available: The supervisor is physically within the hospital or other site of patient care and is immediately available to provide direct supervision. Direct Supervision not readily Available: The supervisor is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide direct supervision.

PROCEDURAL COMPETENCIES

The clinical skills, which a dermatologist must have are, varied and complex. A complete list of the same necessary for residents and trainers is given below. Some examples, which are a sub sample of the whole, follow. These are to be taken as guidelines rather than definitive requirements. Key for assessing competencies:

1. Observer status.
2. Assistant status.
3. Performed under direct supervision.
4. Performed under indirect supervision.
5. Performed independently.

DIPLOMA YEAR-1

COMPETENCIES	EPA	NO
DIAGNOSTIC PROCEDURES		
SMEAR FOR: <ul style="list-style-type: none"> • ACANTHOLYTIC CELLS • GIANT CELLS • LT BODIES • SCABIES MITE • LEPRO BACILLI 	4	40
SCRAPING FOR FUNGAL HYPHAE	4	40
WOOD LAMP EXAMINATION	4	40
PATCH TESTING(IF AVAILABLE)	4	5
SKIN/MUCOSAL/NAIL BIOPSIES	4	40
THERAPEUTIC PROCEDURES		
ADMINISTRATION OF INTRALESIONAL INJECTIONS	4	35
CRYOTHERAPY	4	40

DRESSINGS:	4	24
<ul style="list-style-type: none"> • HYDROCOLIC ACID • SALICYLIC ACID • WET • OTHER 		
ELECTROCAUTERY	4	40
EXCISION/REMOVAL OF CYSTS	4	10
REMOVAL OF INGROWING TOE NAILS	4	4
AESTHETIC PROCEDURES		
BOTOX/FILLERS		
PRP THERAPY	4	10
CHEMICAL PEELING	4	10
MICRO-NEEDLING	4	10
LASER AND LIGHT THERAPY		
PHOTOTHERAPY	4	12
IPL HAIR REMOVAL	4	4
LASER HAIR REMOVAL	4	4
CO2 FRACTIONAL LASER	4	4
CO2 ABLATIVE LASER	4	4

Diploma Year-2

COMPETENCIES	EPA	NO
DIAGNOSTIC PROCEDURES		
SMEAR FOR:	4	30
<ul style="list-style-type: none"> • ACANTHOLYTIC CELLS • GIANT CELLS • LT BODIES • SCABIES MITE • LEPRO BACILLI 		
SCRAPING FOR FUNGAL HYPHAE	4	30
WOOD LAMP EXAMINATION	4	30
PATCH TESTING(IF AVAILABLE)	4	10
SKIN/MUCOSAL/NAIL BIOPSIES	4	30
THERAPEUTIC PROCEDURES		
ADMINISTRATION OF INTRALESIONAL INJECTIONS	4	25
CRYOTHERAPY	4	40
DRESSINGS:	4	22
<ul style="list-style-type: none"> • HYDROCOLIC ACID • SALICYLIC ACID 		

<ul style="list-style-type: none"> • WET • OTHER 		
ELECTROCAUTERY	4	40
EXCISION/REMOVAL OF CYSTS	4	15
REMOVAL OF INGROWING TOE NAILS	4	4
AESTHETIC PROCEDURES		
BOTOX/FILLERS	3	10
PRP THERAPY	4	10
CHEMICAL PEELING	4	10
MICRO-NEEDLING	4	10
THREADS	3	4
LASER AND LIGHT THERAPY		
PHOTOTHERAPY	4	12
IPL HAIR REMOVAL	4	8
LASER HAIR REMOVAL	4	8
CO2 FRACTIONAL LASER	4	6
CO2 ABLATIVE LASER	4	6
TATTOO REMOVAL BY Q SWITCH ND YAG	4	6

LASER(IF AVAILABLE)		
TREATMENT OF VASCULAR LESIONS BY PULSE DYE LASER(IF AVAILABLE)	4	6

SECTION 7 : RESEARCH AND THESIS

Synopsis Writing Guidelines

The synopsis is a brief outline of your research work with 1500 words as the maximum limit. A synopsis must have the following headings:

Title

Should reflect the objectives of the study. In consideration PICO (population, intervention, control, and outcomes) and FINER (feasible, interesting, novel, ethical, and relevant) criteria in framing a research question or title of the study.

Introduction

Introduction provides background information and rationale for the research. Build an argument for the research and present your research question(s) and aims. Use literature citations in Vancouver style. Example.....text... (1)

It may include the literature review of the following:

- o Introduce the title
- o Background
- o Relevance, importance and applicability
- o Rationale/purpose of study specify
- o Introduce the research question
- o Identify research gap
- o Why it is important to fill the gap
- o What is known (past references)
- o Narrow down from known to unknown
- o What is unknown that is your research question

Introduction should not exceed 01-02 pages and should not exceed 250-300 words.

Rationale

Write down why you want to do this study. What you want to achieve by doing this research. (One paragraph)

Objective

Write clearly objective of your study aligned with research question Write using annotation.

Hypothesis

Write your hypothesis accordingly to type of study and if applicable.

Operational Definitions

Is the definition of the exposure and outcome variables of interest in context to the objective in a particular study and their means of measurement/determination.

Material & Methods

- Study Design
- study duration
- sample size
- Sampling Technique
- inclusion criteria & exclusion criteria

Data collection

A detailed account of how the researcher will perform research; how s/he will document his variable.

It includes:

- Identification of the study variables
- Methods for collection of data
- Data collection tools (questionnaire with all details of variables and patient verification information)

Give method of conduction of study and data collection procedures for each study variable in detail.

Data Analysis Procedure

Relevant details naming software to be used, which descriptive statistics and which test of significance if and when required, specifying variables where it will be applied.

Ethical Considerations

This must include procedural detail information sheet along with consent form. Researcher must consider all aspects of ethics of medical research.

Estimated Cost Of The Project

Estimated cost if any and declaration certificate of cost to be borne by the researcher

Thesis Writing Guidelines

Developed by R&D Department RMU Modified by HPE faculty for MHPE candidates

Thesis writing is an essential requirement for all Master's Level Programs at Rawalpindi Medical University. It is a document that contains relevant details of the research work conducted by the MHPE candidates. The objective of writing a thesis is the presentation of scientific research. The candidate is expected to

- Develop a plan of research.
 - Collect relevant data.
- Browse through the current literature and review the information available.

- Analyse the results and summarize them in a scientific format.
- Develop skills in technical writing.

The thesis writing cultivates an inquisitive mind, and ability to apply recent research to practice and generate local data and compare it with national and international literature.

General Information:

After the completion of data collection and analysis, thesis writing is the next step. Before the thesis is written down, all sections should be carefully outlined and discussed with the supervisor. The thesis represents original research, the work must be in the context of existing knowledge and theories and free of plagiarism.

- Each section of the thesis must be started on a new page.
- The thesis must contain 10,000 to 15,000 words i.e., about 80-100 pages. (excluding references) Pages should be A4 size pages (80 gm), typed or computer-printed with double space, on both sides of pages.
- It must have 3 cm margins on all sides of the page
- All pages must have serial numbers in the lower right corner.
- It must not contain any typographical errors or spelling mistakes.
- Font size should be 10 for text, 10 bold for subheadings, and 12 bold for headings. Chapter titles should be 14 bold in upper case.
- The font style should be Times New Roman or Arial.
- The text should be printed in double space. However, footnotes, long quotations, and captions for tables and figures can be typed in a single space. References should also be single-spaced (double-spaced between entries).
- In thesis, preliminary pages, from 'title page' till 'list of abbreviations' should be numbered in roman numerals; rest of the thesis should be numbered in English numerals.

The most common sections and their sequence are outlined below: -

- Title page
- Certificate of approval (as per given sample)
- Declaration page
- Dedication page; only two to three lines
- Acknowledgement
- Table of contents
- List of tables
- List of figures
- List of Abbreviations
- Section 1: Abstract
- Section 2: Introduction
- Section 3: Literature Review
- Section 4: Methodology
- Section 5: Analysis of data and results
- Section 6: Discussion
- Section 7: Conclusion and recommendation
- Section 8: References (Use Vancouver style referencing)
- Section 9: Appendices

Title page

A title page provides the reader with practical information about your thesis: An illustration of RMU monogram should be at the top of the page followed by,

- The topic of thesis: in bold upper case letters at the top.
- Name of author, in the order of first, middle and last name along with the highest qualification achieved.
- Department name.
- Name of programme/study line.
- Name of the supervisor with his/her highest qualification. Date/month /year of submission.

Supervisor's certificate

It should be as per the approved format of the university and duly signed by the supervisor.

Declaration page / Dedication page / Acknowledgement

It is optional. If you want to dedicate your work to someone or you want to declare or acknowledge the contribution of someone in your research work you can use these pages. It should be brief, only in two or three lines.

Table of contents

The table of contents gives the reader a quick overview of your work. The index shows first- level headings and page numbers for each section including annexures. It may also display second and third-level headings (subheadings) if used within each section. The list should be numbered in Roman numbers.

List of tables

If any tables are used, enlist them according to their page number. A table should be on a separate page.

List of figures

If figures are used, enlist them according to their page number.

Abbreviations

It contains all the significant abbreviations used in the thesis.

Section-1 Abstract

The purpose of the abstract is to help the reader to quickly ascertain the purpose and conclusions of your thesis or in other words to understand why your thesis is important. An abstract is written in past tense, under following headings:

- Introduction
- Objectives
- Materials and Methods
 - Study design
 - Setting
 - Study duration
- Study population (inclusion and exclusion criteria)
- Data collection procedure
- Results
- Conclusion
- Keywords (3-10). Selected key words should be from Medical Subject Headings (MeSH), list of index.

An abstract presents your problem formulation, methods and main results and describes how the thesis makes a difference in your field. An abstract is rarely more than half to one-page long.

Section-2 Introduction

The introduction chapter needs to state the objectives of the program of research, include definitions of the key concepts and variables and give a brief outline of the background and research approach. The introduction aims to contextualize the proposed research. In the opening paragraph, give an overall view of what is included in the chapter. For example:

'This chapter outlines the background (section 0) and context (section 0) of the research, and its purposes (section 0). Section 0 describes the significance and scope of this research and provides definitions of terms used. Finally, section 0 includes an outline of the remaining chapters of the thesis'.

Background

Give the background of the problem to be explored in your study and what led you to do this project. For example, you might discuss educational trends related to the problem, unresolved issues, and social concerns. You might also include some personal background.

Context

Outline the context of the study (i.e., the major foci of your study) and state the problem situation (basic difficulty – area of concern, felt need).

Purposes

Define the purpose and specific aims and objectives of the study. Emphasise the practical outcomes or products of the study. Delineate the research problem and outline the questions to be answered or the overarching objectives to be achieved.

Significance, Scope and Definitions

Discuss the importance of your research in terms of the topic (problem situation), the methodology, and the gap in the literature. Outline the scope and delimitations of the study (narrowing of focus). Define and discuss terms to be used (largely conceptual here; operational definitions may follow in the “Research Design” chapter).

Thesis Outline

Outline the chapters for the remainder of your thesis.

Section-3 Literature Review

Review of literature provides background information and rationale for the research. An argument must be built for the research and research question(s)/aims to be presented. International and local literature must be cited logically. Citation should be in Vancouver style. Most of the references should be from the last five years. Older references are also acceptable provided they are relevant and historical.

The literature review chapter should demonstrate a thorough knowledge of the area and provide arguments to support the study focus. The literature review chapter aims to delineate various theoretical positions and from these, develop a conceptual framework for the generation of hypotheses and setting up the research question. The literature review chapter needs to:

- Critically evaluate the literature rather than merely describe previous literature (i.e., what is good/bad about the body of

literature?).

- Show a synthesis and be integrated rather than being more like an annotated bibliography.
- Identify key authors and the key works in the area, thus acquainting the reader with existing studies relative to what has been found, who has done work, when and where the latest research studies were completed and what approaches to research methodology were followed (literature review of methodology sometimes saved for the “methodology” chapter).

- Constitute an argument.
- Identify the gap in the literature that is being addressed by the research question.
- Suitable sources for the literature review include:
 - General integrative reviews are cited that relate to the problem situation or research problem such as those found in psychological and sociological reviews of research.
 - Specific books, monographs, bulletins, reports, and research articles – preference shown in most instances for the literature of the last 5 years.

The literature review chapter can be arranged in terms of the questions to be considered or objectives/purposes set out in the Introduction chapter.

Summarise the literature review and discuss the implications from the literature for your study – the theoretical framework for your study. Here you can make an explicit statement of the hypotheses, propositions or research questions and how they are derived from existing theory and literature. Establish from the literature (or gap in the literature) the need for this study and the likelihood of obtaining meaningful, relevant, and significant results. Outline any conceptual or substantive assumptions, the rationale and the theoretical framework for the study. Explain the relationships among variables or comparisons and issues to be considered. This section should demonstrate the contribution of the research to the field, and be stated in a way that leads to the methodology.

Section-4 Methodology

In this section, you will describe detail of your research methodology. The following items must be included as sub-headings with relevant details.

- Hypothesis
- Objectives
- Operational definitions
- Materials and methods

Discuss the methodology to be used in your study (e.g., experimental, quasi-experimental, correlational, casual-comparative, survey,

discourse, case study, analysis, action research). If using stages, outline them here. The methods used must link explicitly to the research question and must be suited to the nature of the question. Discuss any methodological assumptions.

- i. Study design

Outline the research design (e.g., quantitative, qualitative). If quantitative, spell out the independent, dependent and classificatory variables (and sometimes formulate an operational statement of the research hypothesis in null form to set the stage for an appropriate research design permitting statistical inferences). If qualitative, explain and support the approach taken and briefly discuss the data gathering procedures that were [will be] used (observations, interviews, etc.)

ii. Study population/participants

Give details of the participants (were/will be) of your study also include if applicable, sample type and size, reasons for the number selected and the basis for selection).

iii. Inclusion exclusion criteria

iv. Study setting (Name and place where research work was done. Whether it was done in a community, hospital or laboratory.

v. Study duration vi. Sampling technique vii. Size of the sample (If there were groups, mention how many were in each group)

viii. Data collection detail procedure/tools. questionnaire

List and briefly describe all the instruments (e.g., tests, measures, surveys, observations, interviews, questionnaires, artifacts) [to be] used in your study for data collection and discuss their theoretical underpinnings, that is, justify why you used these instruments. So that the line of argument is not broken, it is useful to place copies of instruments in Appendices to which this section can refer.

ix. Analysis details (tests and software used)

This section describes the method/s you used to answer the question(s) raised in your problem formulation. Your information concerning methods should both allow the reader to assess the validity of your results and (particularly for quantitative research) ultimately make it possible for another researcher to get the same results by completing the same work as you.

Section-5 Analysis of data

Discuss how the data was processed and analyzed (e.g., statistical analysis, discourse analysis).

This section needs to link the analysis of the research to the methods and demonstrate why this was the best approach to analysis. For qualitative research, justification needs to be provided for methods such as coding and dealing with divergent data. For quantitative research,

justification of the choice of statistics and the expected results that they will provide should be described. There should be enough detail for the reader to replicate the analysis. For example, “NVivo or SPSS will be used” is not adequate. Rather, the approach to coding, including how categories were derived and validated, how the data was structured, and specific analytical techniques applied, should be included.

Section-6 Results

In this section, you have to report the results of your study – your data and their analysis. Remember that you are not only expected to present raw data, they should be analyzed and presented in an overview for this purpose. You may therefore need to describe very briefly how you collected your raw data and how you processed and analyzed these. Data may be displayed in the form of tables or figures which enables you and the reader to make sense of it, but in a lot of qualitative research, it is merely the explanation in words that constitutes the results. You can put some analysis of the results here, but generally, just the results are presented, without interpretation, inference, or evaluation. The results should be linked inextricably to the design – describe what happened factually and unemotionally. However, in certain historical, case- study and anthropological investigations, factual and interpretive material may be interwoven rather than being presented as “findings”.

Include a paragraph at the beginning of the ‘Results’ chapter outlining the structure of the chapter. The results should be reported to furnish evidence for your research question(s). Thus, you might choose to use headings that correspond to each main question of your hypothesis/objectives and/or your theoretical framework. Or you might organise your results in terms of the stages of the study (if applicable).

Results should mention, the number of subjects at the start of the study, along with the number of subjects who were excluded, dropped out or lost at any point during the study.

Present the findings/results in tables or charts when appropriate, making sure to use correct formatting for any tables used. Data shown in the form of tables/ figures should not be repeated in the text; only important observations should be summarized.

Section-7 Discussion

The discussion is the key section of your thesis. The purpose of the discussion is to explain the central results and potential implications of your study. This is where you scrutinize your results and where the choice of method(s) is discussed including the possible influence of methodological bases and errors on data validity.

The discussion should also address general limitations and weaknesses of the study and comment on these. Importantly, you have to discuss conflicting explanations for your results and defend your thesis argument by systematically relating your problem formulation and empirical findings to the existing body of knowledge and/or theory as outlined by your literature review. The discussion of your results and final thesis argument should form the basis for your conclusions.

Results of the study should be compared with the published national and international literature and in case a discrepancy is present, it needs to be explained. Similarities and differences between the findings of your study and those of others should be brought out and analyzed.

If your study was based on some hypothesis, mention whether the hypothesis stands supported or refuted by your results. Lastly, mention the importance of your study and its implications for future clinical practice.

Section-8 Conclusions

The conclusions section is where you summarize your answer(s) to the questions posed in your problem formulation. What is the strongest statement you can make based on your findings?

This chapter contains conclusions, limitations, and recommendations – so what is the theory? Where to from here? What are the practical implications? Discussion of where the study may be extended.

Again, the chapter should begin with a summary paragraph of the chapter structure. The opening section(s) of the chapter should be a summary of everything covered so far. Follow this with your conclusions. This is the “so what” of the findings – often the hypothesis/research question(s) restated as inferences with some degree of definitive commitment and generalisability, and the raising of new and pertinent questions for future research. You could include a final model of the theory.

The chapter should also include a discussion of any limitations of the research and should end with your final recommendations – practical suggestions for implementation of the findings/outcomes or additional research.

Recommendations or Perspectives: -

The final section involves the last part of your academic performance; how to launch the results and conclusions into the future. Is there a need for further investigation and how? What are the perspectives of your results and conclusions? The perspectives are where you once again broaden the thesis and point out where your results can be implemented. Recommendations are sometimes included in the conclusions.

Section-9 References

The list of references contains a formalized description of all the sources, e.g., journal articles, reports, books etc. that are cited directly in the text of your thesis. References are numbered

consecutively in order of appearance in the text. In the text, number of reference should be added as superscript at the end of the sentence.

You should apply the referencing system suggested/required by thesis guidelines. Here at RMU, we recommend “Vancouver Standard”.

The referencing can be done using the referencing software. References can be written in single space with extra space between references as in the format below. There are many different ways to arrange the information and punctuation in a reference listing. The most important thing is to make sure all references are complete and that the format of your references is consistent throughout.

At least 50 references should be cited and 50% of the references should be within the last 5 years.

Section-10 Annexures

The following may be attached along with your thesis or submitted to research unit:

- Approved copy of your synopsis
- Certificate of Approval of Board of Advanced Studies and Research
- Ethical review board approval (IRF/ERB)
- Similarity index less than 20% PDF report
- Supervisory certificate
- Study Performa

Submission of thesis

- Five hard copies printed on out 80-100 A4 size pages duly hardbound, computer- printed with double space, on both sides of the page, should be submitted. A soft copy of the thesis should also be sent to basr.rmu.pk@gmail.com.

- After approval of the thesis, the same may be submitted to a medical journal for publication with the name of the candidate as the first author of the article.

Outcome & Utilization

Outcome of the study what it will help to establish.

Plan Of Work

Use a Gantt chart showing your timeline for research work and completion of your research thesis/dissertation.

References

- Must be in Vancouver Style
- At-least 10 to 15 references,
- use latest (70% should not be older than 05 years)

Annexure

Consent forms in Urdu and English must be study specific. Study Performa

Collaboration letter if any Declaration if any

If conducting a clinical trial, include consort flow diagram in data collection section and DRAP and bioethics documents properly filled as per requirements.

Format layout of Synopsis

- Each section of the synopsis must be started on a new page.
- The section in part 1, from "Supervisor's Certificate" up to the list of "Abbreviation", should be serially numbered in Roman number while the rest should be serially numbered in Arabic numerals.
- The synopsis must not contain more than 1000 words. Five hard copies printed on out 80-100 A4 size pages duly tape bind, computer-printed with double space, on one side of each page. Soft copy of synopsis should be send to *mhpe@rmur.edu.pk*

- It must have 3-cm margin, at all 4 sides of each page.
- All pages must have serial numbers at lower right hand corner.
- It must not contain any typographical errors or spelling mistakes.
- The font size should be 12 for body and 14 for headings. Title page main heading should be size 16-18

SECTION -8: Assessment Strategies

UNIVERSITY DIPLOMA PROGRAM OF RAWALPINDI MEDICAL UNIVERSITY: THE ASSESSMENT STRATEGIES FOR DIPLOMA IN DERMATOLOGY

The vision:

To improve health care and population health by assessing and advancing the quality of Trainee physician's education through accreditation.

The Mission:

We imagine a world characterized by:

- A structured approach to evaluating the competency of all Trainee and fellows
- Motivated physician role Models leading all program of the university.
- High quality, supervised, humanistic clinical educational experience, with customized formative feedback.
- Clinical learning environments characterized by excellence in clinical care, safety of patients, doctors and paramedics and professionalism.
- Trainee and fellows achieving specific proficiency prior to graduation.
- Trainee and fellows are prepared to be Virtuous Physicians who place the needs and well-being of patients first

The values:

- Honesty and Integrity
- Excellence and Innovation
- Accountability and Transparency
- Fairness and Equity
- Stewardship and Service
- Engagement of Stakeholders
- Leadership and Collaboratio

Back Ground/ Rationale:

- Need for Modernization of the Post Graduate Dermatological Training in the country.
- Need for structuration of all the components of Post Graduate Dermatological training in Pakistan.

- Need for better Monitoring of the System for better out comes.

Aims:

- To fulfillthe need of Modernization of the Assessment strategies.
- To structure the Assessment strategies.
- To shift the paradigm from an Examination Oriented System towards a Training Oriented System.

The Characteristics of the document on Assessment Strategies:

Following aspects are tried to be accomplished while synthesis of this document on assessment strategies for Diploma In Dermatology :

- Should be Technically Sound
- Should be acceptable by all the stakeholders
- Should bed feasible for implementation
- Should be concise
- Should be according to the need of our educational system
- Should be reproducible / can be nationalized
- Should be sustainable
- Should be able to assesses all required competencies accurately

Few definitions before we proceed further made to be clear:

1. What Is Competency?

The ability to do something successfully or efficiently.

2. What Is Competence?

Competency is described what an individual is enable to do while performance should describe what an individual actually does in clinical practice. The terms “performance” and “competency” are often used interchangeably.

3. What is performance based assessment of curriculum?

Performance based assessment measures students’ ability to apply the skills & knowledge learned from a unit of study.

4. What is work place based assessment of curriculum?

The apprenticeship model of dermatological training has existed for thousands of years: the apprentice learns from watching the master and the master in turn observe the apprentice's performance & helps them improve. Performance assessment not therefore a new concept higher work in modern healthcare environment with its discourse of accountability, performance assessment increasing role In ensuring that professionals develop and maintain the knowledge and skills required for practice. However now it will be done in a structured manner.

5. What is a Formative Assessment?

- Such an Assessment which creates learning itself, from one's deficiencies.
- It is non-threatening for the students because it does not decide pass or fail.
- Provision of Feed back to the students is essential component of Formative Assessment

6. What is a Summative Assessment?

- Criteria Based High Stake Examinations
- Provision of Feedback to the students is not essential for Summative Examinations

7. What is continuous Internal Assessment?

A collection of Formative Assessments is called Continuous Internal Assessment

What is the basis of curriculum and Assessment of DIPLOMA dermatology of Rawalpindi Dermatological University Rawalpindi?

The curriculum of DIPLOMA dermatology of Rawalpindi Dermatological University Rawalpindi is derived from **Accreditation Council for Graduate Medical Education** which is competency / performance based system depends upon six following competencies.

- 1. Medical Knowledge**
- 2. Patient Care**
- 3. Interpersonal & Communication Skills**
- 4. Professionalism**
- 5. Practice Based Learning**
- 6. System Based Learning**

Model of examination for DIPLOMA Dermatology Rawalpindi Dermatological University:

Distribution of weightage (if we consider total marks as 100) among various desired competencies of RMU Dermatology diploma curriculum:

1. Dermatological knowledge	40% both
2. Patient care	
3. Interpersonal & communication skills	40% both
4. Professionalism	
5. Practice based learning	20% both
6. System based learning	

Continuous Internal Assessment:

Competencies included CIA	Phases of CIA	Time Line for end of various phases of CIA	Weightage of CIA	Tools for Assessment of CIA
1. Medical knowledge 2. Patient care (40% both) 3. Interpersonal &	Phase -1 ➤ CIA Year 1 ➤ CIA Year 2	till end of Year 2	Equal to or more than 75% of the total marks of all formative assessments/ 360° Evaluations	<ul style="list-style-type: none"> • Multi source feedback/360 degree evaluation • MCQs for knowledge

<p>communication skills</p> <p>4. Professionalism (40% both)</p> <p>5. Practice based learning</p> <p>6. System based learning (10% both)</p>	<p>Phase -2</p> <ul style="list-style-type: none"> ➤ CIA Year 3 ➤ CIA Year 4 ➤ CIA Year 5 for five year training program 	<p>till end of Year 4 Or Year 5 for 5 year training program</p>	<p>Equal to or more than 75% of the total marks of all formative assessments/ 360° Evaluations</p>	<ul style="list-style-type: none"> • Mini-CEX • Case based discussion • CPC presentations • TOACS/OSCE • Charts stimulated recall • Teaching rounds • Directly observed procedures
---	---	---	--	---

Details about various competencies required for DIPLOMA Dermatology along with brief details of Teaching Strategies, Type of Assessment, weightage given to the competency & Tools of Assessment:

Sr. No	Competency to be assessed	Teaching & learning strategies	Type of Assessment for the competency to be assessed	% weightage of the competency	Tools of Assessment
1.	Medical knowledge	Case based discussion & problem based learning, large group interactive session, self-directed learning, teaching rounds, and literature search.	Formative Assessment leading to continue internal assessment and also summative assessment in high stake exams	40% for both Dermatological Knowledge and Patient Care both	MCQs, SEQs, Directly observe procedure, mini clinical examinations, charts, OSCE, teaching ward rounds, case discussion, seminars, topic presentation
2.	Patient care	Case based discussion, teaching rounds, morbidity & mortality meetings, 360 ⁰ feedback evaluation, DOPS, long case/ short case discussions OPDs, emergency indoor workshops, hands on trainings.	Formative assessment leading to continue internal assessment and also summative assessment in high stake exams		Teaching rounds, case base discussion, presentations, CPC participations, clinical management, problem base learning, peer assisted learning, dealing with paramedics & patient attendants
3.	Professionalism	Teaching rounds, known conferences, workshops, hands on training, , morbidity & mortality meetings, journal club	Formative assessment leading to continue internal assessment	40% for both professionalism & interpersonal communication skills both	Working in OPDs, wards, emergency DOPs, clinical case discussion, dealing with paramedics, meeting with supervisor & mentors, mini clinical examination
4.	Interpersonal & communication skills	Teaching rounds, hands on training, LGIS, session with supervisor & mentors, , SDL,	Formative assessment leading to continuous internal assessment		Multi source & 360 degree evaluation.
5.	Practice based learning	Case based discussion, teaching rounds, known conferences, morbidity & mortality meetings, OPDs, emergency indoor workshops, hands on trainings.	Formative assessment leading to continuous internal assessment Multi source & 360 degree evaluation (Logbook & portfolio)	20% both Practice Based Learning & System Based Learning	Working in OPDs, wards, emergency DOPs, clinical case discussion, dealing with paramedics, meeting with supervisor & mentors, mini clinical examination

6.	System based learning	Working in wards, OPDs, Emergency	Formative assessment leading to continuous internal assessment Multi source & 360 degree evaluation (Logbook & portfolio)	both	Working in OPDs, wards, emergency DOPs, clinical case discussion, dealing with paramedics, meeting with supervisor & mentors, mini clinical examination
----	-----------------------	-----------------------------------	---	------	---

Summary of all Assessments in Five year training program of DIPLOMA Dermatology:

S.NO.	Year of Examination	Name of Examination & type of Assessment	Competencies to be Assessed with weightage	Eligibility criteria	Pass Marks required	Total No. of Examinations
1	During training of Year -1	Formative Assessment /Evaluations (Formative Assessment)	1. Dermatological knowledge 2. Patient care (40% both)	75% or above of CIA the total marks will be considered as eligible	Not applicable as it is a Formative Assessment	04 evaluations in one year (total evaluations in two years =08)

2	At the End of Year 1	Examination year1 (Summative Assessment)	<ol style="list-style-type: none"> 3. Interpersonal & communication skills 4. Professionalism (40% both) 5. Practice based learning 6. System based learning(20% both) 	<ol style="list-style-type: none"> 1. Submission of certificates of completion of the Following Mandatory workshops: Communication skills-- 3 days Computer & IT skills -- 3 days Basic Life Support ---- 2 days 2. Completed and Duly signed LogBook for year one 3. Completed and duly signedPortfolio for year one 4. Submission of certificate of Continuous Internal Assessmentfor year one: Equal to or More than 75% (a cumulative score ofthe year one) 5. Certificate of completion of Firstyear Training duly signed by the Supervisor 	<p>Details Described atthe end</p> <p>60% pass marks</p>	02 Examination in two years training program
---	----------------------	---	---	---	--	--

				<p>9. Submission of evidence of payment of examination Fee for year-1 examination</p> <p>10. Submission of no dues certificate from all relevant departments including Library, Hostel, Cashier etc. for year one of training</p>		
3	During training of Year -2	End of year two Formative Assessment /Evaluations (Formative Assessment)		75% or above of CIA the total marks will be considered as eligible	Not applicable as it is a Formative Assessment	04 evaluations in one year (total evaluations in four years =08)

4	At the end of Year-2	Final Examination for 2 year diploma program (Summative Assessment)		<ol style="list-style-type: none"> 1. Submission of Pass Result of Examination of Year-1 2. Completed and Duly signed LogBook for year one and two 3. Completed and duly signed Portfolio for year one and two 4. Submission of certificate of Continuous Internal Assessment for year one: Equal to or More than 75% (a cumulative score of two Completed and Duly signed Log Book for year three and four 5. Completed and duly signed Portfolio for year three and four 6. Submission of certificate of Continuous Internal Assessment for year one and two. Equal to or More than 75% (a cumulative score of the year one and two 7. Certificate of completion of two year of Training duly signed by the Supervisor 8. Submission of evidence of payment of examination Fee for Final Examination: Examination Fee once deposited cannot be refunded/carried over the next examination under any 	Details Described at the end 60% pass marks	01
---	----------------------	--	--	---	--	----

				<p>circumstances</p> <p>9. Submission of no dues certificate from all relevant departments including Library, Hostel, Cashier etc. For year two only</p>		
--	--	--	--	--	--	--

Grand total of all examinations for two year diploma Training Program	02 Summative Assessments in two years
---	---------------------------------------

Exam Policy

Details about Content, number of questions (MCQs) and Marks of various High Stake/ Summative Examinations

Name of examination	Content	Eligibility criteria	Questions MCQs/SEQs/TOACS
---------------------	---------	----------------------	------------------------------

<p>Examination year-1(at the end of year 1)</p>	<ul style="list-style-type: none"> • Foundation of dermatology • Management • Infections and Infections • Inflammatory Dermatoses • Metabolic and Nutritional Disorders Affecting the Skin 	<p>i. Completion of 1ST year training</p> <p>ii. Workshops completion</p> <ul style="list-style-type: none"> • Reference Manager(Endnote)---1 day <p>Iv, CIS MINIMUM75 % marks minimum 75% marks certification by DME and Supervisors/s</p>	<p>B- Written Paper (100 marks)</p> <p>➤ 100 MCQs ----- total 100 marks (100 clinical MCQs)</p> <p><i>(Pass percentage = 60%)</i></p> <p>C- Table of Specification</p> <ol style="list-style-type: none"> 1. Foundation of dermatology 05 MCQs, 2. Principles of Management 05 MCQs, 3. Infections and Infestations --10MCQs, 4. Inflammatory Dermatoses 10 MCQs, 5. Metabolic and Nutritional Disorders Affecting the Skin----- 05MCQs,
---	---	---	--

<p>Examination year 4 (at the end of year 4)</p>	<ul style="list-style-type: none"> • Genetic Disorder Involving the Skin • Psychological, Sensory and Neurological Disorders and the Skin • Skin Disorder Associated with specific Cutaneous Structure • Vascular Disorder Involving the Skin • Skin Disorder Associated with Specific Sites, Sex, and Age • Skin Disorders Caused by External Agents 	<p>iii. Completion of 4th year training</p> <p>iv. Passed Intermediate examination</p> <p>v. Workshops completion</p> <ul style="list-style-type: none"> • Reference Manager(Endnote)---1 day <p>vi. Research</p> <ul style="list-style-type: none"> • data collection • data analysis & interpretation • start writing thesis <p>vii. Publication of one article in Trainee research journal or statistical report of 11 disease(optional)</p> <p>CIS MINIMUM 75 % marks minimum 75% marks certification by DME and Supervisors/s</p>	<p>B- Written Paper (100 marks)</p> <p>➤ 100 MCQs ----- total 100 marks (100 clinical MCQs)</p> <p><i>(Pass percentage = 60%)</i></p> <p>C- Table of Specification</p> <ol style="list-style-type: none"> 1. Genetic Disorder Involving the Skin 10 MCQs 2. Psychological, Sensory and Neurological Disorders and the Skin 05 MCQs, 3. Skin Disorder Associated with specific Cutaneous Structure--05MCQs 4. Vascular Disorder Involving the Skin 10MCQs, 5. Skin Disorder Associated with Specific Sites, Sex, and Age 5MCQs 6. Skin Disorders Caused by External Agents 5 MCQs,
--	---	--	--

<p>Final Exam at the end of year 2)</p>	<ul style="list-style-type: none"> • Foundation of dermatology • Management • Infections and Infections • Inflammatory Dermatoses • Metabolic and Nutritional Disorders Affecting the Skin • Genetic Disorder Involving the Skin • Psychological, Sensory and Neurological Disorders and the Skin • Skin Disorder Associated with specific Cutaneous Structure • Vascular Disorder Involving the Skin • Skin Disorder Associated with Specific Sites, Sex, and Age • Skin Disorders Caused by External Agents • Neoplastic, Proliferative and Infiltrative Disorders Affecting Skin • Systemic Disease and the Skin • Aesthetic Dermatology 	<p>viii. Completion of 5th year training</p> <p>ix. Passed Intermediate examination</p> <p>x. Workshops completion</p> <p>CIS MINIMUM 75 % marks minimum 75% marks certification by DME and Supervisors/s</p>	<p>B- Written Paper (200 marks)</p> <p>➤ 200 MCQs----- total 200 marks (200 clinical MCQs)</p> <p><i>(Pass percentage = 60%)</i></p>
---	---	---	--

Final Term Assessment TOS

Marks Distribution	Units/Topics	No. of MCQs		
<p>WRITTEN & CLINICAL</p> <p>Written- Two papers</p> <p>Paper 1 & 2 will comprise 100 single best answer type Multiple Choice Questions in each paper.</p> <p>1 marks each for each MCQ.</p> <p>(3hours)</p> <p><u>Written exam should be passed (pass marks=60%) to appear in clinical exam.</u></p>	Paper I (100 MCQs)			
	Foundation of dermatology	5		
	Principles of management	5		
	Infections and infestations	25		
	Inflammatory dermatoses	30		
	Metabolic and nutritional disorders affecting the skin	10		
	Genetic disorders involving the skin	20		
	Psychological, sensory and neurological disorders and the skin	5		
	Paper II (100MCQs)			
	Skin Disorder Associated with specific Cutaneous Structure	10		
	Vascular disorders affecting the skin	20		
	Skin disorders associated with specific sites, sex and age	10		

Clinical: OSCE=150 marks (15 stations 10 Marks each) 5 min for each station	Skin disorders caused by external agents	10	
	Neoplastic, proliferative and infiltrative disorders affecting skin	20	
	Systemic disease and the skin	15	
	Aesthetic Dermatology	15	
	<i>*10% MCQs can be from rest of the units which are not mentioned in this list</i>		
	Clinical		
	OSCE stations	15	

Scheme for OSCE in Final Assessment

1. Total number of stations – 15 (All Stations are interactive)
2. Time allocation for each station – 5 minutes
3. Marks allocation for each station – 10 marks (60% pass marks accumulative)

Station No.	Topic	Sub-topic	Task
1	Interpretation of histopathology slide on a microscope	Infections, papulosquamous disorders, bullous disorders, metabolic disorders, collagen vascular diseases, genetic disorders, skin tumours, miscellaneous	Candidate will set 2 slides on microscope, interpret and diagnose
2	Interpretation of histopathology slide without microscope	Infections, papulosquamous disorders, bullous disorders, metabolic disorders, collagen vascular diseases, genetic disorders, skin tumours, miscellaneous	Candidate will interpret and diagnose 2 pictures of dermatopathology slides
3	Energy based devices	IPL laser, carbon dioxide laser, Q-switch/ Pico laser and miscellaneous	Candidate will perform all the steps of the procedure on mannequin or simulated patient and will describe indications and complications
4	Aesthetic Dermatology	Chemical peels, microneedling, PRP, vampire facial, botox, fillers etc.	Candidate will perform all the steps of the procedure on mannequin or simulated patient and will describe indications and complications

Station No.	Topic	Sub-topic	Task
5	Interpretation of Clinical Scenario/ Laboratory investigations	Infections, papulosquamous disorders, bullous disorders, metabolic disorders, collagen vascular diseases, genetic disorders, skin tumours, miscellaneous	Candidate will interpret the data, will make diagnosis and will describe management plan.
6	Interpretation of Clinical Scenario/ Laboratory investigations/ performing clinical examination	Infections, papulosquamous disorders, bullous disorders, metabolic disorders, collagen vascular diseases, genetic disorders, skin tumours, miscellaneous	Candidate will interpret the data, will make management plan. He may be asked to do short focused examination like examination of nerves in leprosy, calculating PASI score etc.
7	Procedure/ Dermatosurgery	Incisional skin biopsy, punch biopsy, electrocautery, salicylic acid dressing etc.	Candidate will perform all the steps of the procedure on mannequin or simulated patient and will describe indications and complications
8	Counselling/ communication skills	Infections, papulosquamous disorders, bullous disorders, metabolic disorders, collagen vascular diseases, genetic disorders, skin tumours, miscellaneous	Candidate will communicate effectively with the patient and do the counselling.

Station No.	Topic	Sub-topic	Task
9	Interpretation of clinical picture	Skin infections	Candidate will interpret 2 pictures (and clinical information if given), diagnose and answer relevant questions
10	Interpretation of clinical picture	Papulosquamous skin disorders	Candidate will interpret 2 pictures (and clinical information if given), diagnose and answer relevant questions
11	Interpretation of clinical picture	Bullous disorders of skin	Candidate will interpret 2 pictures (and clinical information if given), diagnose and answer relevant questions
12	Interpretation of clinical picture	Metabolic skin disorders	Candidate will interpret 2 pictures (and clinical information if given), diagnose and answer relevant questions
13	Interpretation of clinical picture	Collagen vascular diseases	Candidate will interpret 2 pictures (and clinical information if given), diagnose and answer relevant questions
14	Interpretation of clinical picture	Genetic disorders	Candidate will interpret 2 pictures (and clinical information if given), diagnose and answer relevant questions
15	Interpretation of clinical picture	Tumours of skin and miscellaneous	Candidate will interpret 2 pictures (and clinical information if given), diagnose and answer relevant

			questions
--	--	--	-----------

CLINICAL COMPONENT MARKING DETAILS

SCHEME FOR OSCE IN THE FINAL TERM

Total Marks: 150

As a guideline 50% of the station will focus cognition, 40% psychomotor skills, and 10% on attitude. This can be varied however depending on scenario, station type, and examiners preference

LONG CASE/ SHORT CASE DETAILS

- Short cases- 200 marks (4 cases

50 marks each)

10 min each

- Long case- 100 marks (1 long case) 60 min duration

LONG CASE

(100 marks 60 minutes)

Each candidate will be allotted one long case and allowed 30 minutes for history taking and clinical examination. Candidate should take a careful history from the patient (or relative) and after a thorough physical examination identify the problems which the patient presents. During this period the candidate will be observed by the examiners.

Case presentation and discussion on the long case will be conducted jointly by the two examiners for 30 minutes. In this section the candidates will be assessed on the following areas:

Interviewing and Clinical examinations skills

- Introduces oneself, listens patiently, and is polite with the patient.
- Is able to extract relevant information.
- Takes informed consent.
- Uses correct clinical methods systematically (including appropriate exposure and re-draping).

Case Presentation Discussion

- Presents skillfully.
- Gives correct findings.
- Gives logical interpretation of findings and discusses differential diagnosis.
- Enumerates and justifies relevant investigation(s).
- Outlines and justifies treatment plan (including rehabilitation).
- Discusses prevention and prognosis.
- Has knowledge of recent advances relevant to the case.

SHORT CASES- 4

(200 marks40 minutes)

Each candidate will go through 4 short cases. Each short case will be of 10 minutes. In first 5 minutes candidate will be asked to perform a pertinent clinical examination (CVS, CNS, GIT, Respiratory, GPE, and Musculoskeletal etc). During this period the candidate will be observed by the examiners. Case presentation and discussion on each short case will be conducted by examiner. Following will be assessed and marking will be done on assessment performance.

Clinical Examination Skills

Performance of proper and concerned relevant clinical examination according to instructions given in professional manner.

- Systematic and appropriate application of clinical methods

Discussion Focusing

- Correct findings, logical interpretation, and conclusion.
- Diagnosis justification

- Appropriate/ investigations and management (including recent advances)

Interviewing and Clinical examinations skills

- Introduces oneself, listens patiently, and is polite with the patient.
- Is able to extract relevant information.
- Takes informed consent.
- Uses correct clinical methods systematically (including appropriate exposure and re-draping).

Case Presentation/Discussion

- Presents skillfully.
- Gives correct findings.
- Gives logical interpretation of findings and discusses differential diagnosis.

Components	Time allowed	Max. Marks	Min. Pass marks

CLINICAL	60 minutes		
Long case	30 minutes for history taking and clinical examination 30 minutes for discussion	100	60
Short cases (Four cases)	40 minutes (includes both examination and discussion)	200	120
OSCE (15 interactive Stations)	5 minutes per station	150	90
AGGREGATE		450	270 (60%)

- Enumerates and justifies relevant investigation(s).
- Outlines and justifies treatment plan (including rehabilitation).

- Discusses prevention and prognosis.

Has knowledge of recent advances relevant to the case.

SECTION -9

References

Teaching Methods

- Kolb, D. *Experiential Learning*. Englewood Cliffs, NJ: Prentice Hall. 1984
- Maudsley G. Do we all mean the same thing by “PBL”? *Academic Medicine* 1999; 74:178-85

- Hill W. *Learning Thru Discussion* 2nd edition. London: Sage Publications. 1977.
- Cook D. Web-based learning: pros, cons and controversies. *Clinical Medicine* 2007; 7(1):37-42.

- Greenhalgh T. Computer assisted learning in undergraduate medical education. *BMJ* 2001; 322:40-4.

- Chumley-Jones HS *et al* Web-based learning: Sound educational method or Hype? A review of the evaluation literature. *Academic Medicine* 2002;77(10):S86-S93.
- Schon D. *Educating the reflective practitioner*. San Francisco: Jossey Bass. 1984
- Lockyer J *et al* Knowledge translation: the role and practice of reflection. *Journal of Continuing Education*. 2004;24:50-56

Assessment methods

- Van der Vleuten, CPM and Swanson, D. Assessment of clinical skills with standardized patients: State of the art. *Teach Learn Med.* 1990; 2: 58-76.
- Haladyna TM. *Developing and validating multiple-choice test items.* Hillsdale, New Jersey: L. Erlbaum Associates.1994.

- Case SM, Swanson DB. *Constructing written test questions for the basic and clinical sciences*. Philadelphia, PA:National Board of Medical Examiners, 1996 (www.nbme.org)
- Case SM, Swanson DB. *Constructing written test questions for the basic and clinical sciences*. Philadelphia, PA:National Board of Medical Examiners, 1996 (www.nbme.org)
- Center for Creative Leadership, Greensboro, North Carolina (<http://www.ccl.org>).
- Challis M. AMEE medical education guide no. 11 (revised): Portfolio-based learning and assessment in medical education. *Med Teach*. 1999; 21: 370-86.
- Gray, J. Global rating scales in DIPLOMA education. *Acad Med*. 1996; 71: S55-63.
- Haladyna TM. *Developing and validating multiple-choice test items*. Hillsdale, New Jersey: L. Erlbaum Associates.1994.
- Kaplan SH, Ware JE. The patient's role in health care and quality assessment. In: Goldfield N and Nash D (eds). *Providing quality care (2nd ed): Future Challenge*. Ann Arbor, MI: Health Administration Press, 1995: 25-52.

- Matthews DA, Feinstein AR. A new instrument for patients' ratings of physician performance in the hospital setting. *J Gen Intern Med.* 1989;4:14-22.

- Mancall EL, Bashook PG. (eds.) *Assessing clinical reasoning: the oral examination and alternative methods.* Evanston, Illinois: American Board of Medical Specialties, 1995.

- Munger, BS. Oral examinations. In Mancall EL, Bashook PG. (editors) *Recertification: new evaluation methods and strategies.* Evanston, Illinois: American Board of Medical Specialties, 1995: 39-42.

- Noel G, Herbers JE, Caplow M et al. How well do Internal Medicine faculty members evaluate the clinical skills of Trainee? *Ann Int Med.* 1992; 117: 757-65.

- Norman, Geoffrey. *Evaluation Methods: A resource handbook.* Hamilton, Ontario, Canada: Program for Educational Development, McMaster University, 1995: 71-77. Tekian A, McGuire CH, et al (eds.) *Innovative simulations for assessing professional competence.* Chicago, Illinois: University of Illinois at Chicago, Dept. Med. Educ. 1999

- Tugwell P, Dok, C. Medical record review. In: Neufeld V and Norman G (ed). *Assessing clinical competence*. New York: Springer Publishing Company, 1985: 142-82.
- Van der Vleuten, CPM and Swanson, D. Assessment of clinical skills with standardized patients: State of the art. *Teach Learn Med*. 1990; 2: 58-76.
- Watts J, Feldman WB. Assessment of technical skills. In: Neufeld V and Norman G (ed). *Assessing clinical competence*. New York: Springer Publishing Company, 1985, 259-74.
- Winckel CP, Reznick RK, Cohen R, Taylor B. Reliability and construct validity of a structured technical skills assessment form. *Am J Surg*. 1994; 167: 423-27.

References of Milestones

<https://www.acgme.org/globalassets/PDFs/Milestones/dermatologyMilestones.pdf>

Section 10

Appendices

List of Appendices

1. Workplace Based Assessments-Multi source feedback profoma- 360° evaluation ----- Appendix “ A”
2. Proforma for feedback by Nurse for core competencies of the Trainee ----- “Appendix B”
3. Proforma for patient Medication Record ----- “Appendix C”
4. Workplace Based Assessments- guidelines for assessment of Generic & specialty specific Competencies -----
- Appendix “ D”
5. Supervisor’s Annual Review Report ----- Appendix “ E”
6. Supervisors evaluation Proforma for continuous internal assessments Appendix “ F”
7. Evaluation of Trainee by the faculty -----Appendix “ G”
8. Evaluation of faculty by the Trainee ----- Appendix “ H”
9. Evaluation of program by the faculty ----- Appendix “ I”
- 10.Evaluation of program by the Trainee ----- Appendix “ J”
- 11.Guidelines for program evaluation-----Appendix “ K”
- 12.Evaluation of Project Director by the Trainee ----- Appendix “ L”



RAWALPINDI MEDICAL UNIVERSITY

1

MENTOR / SUPERVISOR EVALUATION OF TRAINEE

Resident's Name: _____

Evaluator's Name(s): _____

Hospital Name: _____

Date of Evaluation: _____

 Traditional Track (10% Clinic) Primary Care Track (20% Clinic)

1	Unsatisfactory
2	Below Average
3	Average
4	Good
5	Superior

Please circle the appropriate number for each item using the scale above.

Patient Care	Scale				
1. Demonstrates sound clinical judgment	1	2	3	4	5
2. Presents patient information case concisely without significant omissions or digressions	1	2	3	4	5
3. Able to integrate the history and physical findings with the clinical data and identify all of the patient's major problems using a logical thought process	1	2	3	4	5
4. Develops a logical sequence in planning for diagnostic tests and procedures and Formulates an appropriate treatment plan to deal with the patient's major problems	1	2	3	4	5
5. Able to perform commonly used office procedures	1	2	3	4	5
6. Follows age appropriate preventative medicine guidelines in patient care	1	2	3	4	5
Medical Knowledge	Scale				
1. Uses current terminology	1	2	3	4	5
2. Understands the meaning of the patient's abnormal findings	1	2	3	4	5
3. Utilizes the appropriate techniques of physical examination	1	2	3	4	5
4. Develops a pertinent and appropriate differential diagnosis for each patient	1	2	3	4	5
5. Demonstrates a solid base of knowledge of ambulatory medicine	1	2	3	4	5



Patient Medical Record / Chart Evaluation Proforma

Name of Resident

Location of Care or Interaction
(OPD/Ward/Emergency/Endoscopy Department)

S#		Poor	Fair	Good	V. Good	Excellent
1.	Basic Data on Front Page Recorded	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	Presenting Complaints written in chronological order	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	Presenting Complaints Evaluation Done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	Systemic review Documented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	All Components of History Documented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	Complete General Physical Examination done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	Examination of all systems documented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	Differential Diagnosis framed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	Relevant and required investigations documented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	Management Plan framed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	Notes are properly written and eligible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	Progress notes written in organized manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	Daily progress is written	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	Chart is organized no loose paper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	Investigations properly pasted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	Abnormal findings in investigations encircled.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	Procedures done on patient documented properly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	Medicine written in capital letter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



RAWALPINDI MEDICAL UNIVERSITY

4

Patient Evaluation of Trainee

Trainee Name: _____

Date of Evaluation: _____

1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Please circle the appropriate number for each item using this scale. Please provide any relevant comments on the back of this form.

	This Trainee:	Scale				
1.	Introduces him/herself and greets me in a way that makes me feel comfortable. ڈاکٹر صاحب نے خود کو متعارف کرایا اور خوش اسلوبی سے پیش آئے۔	1	2	3	4	5
2.	Manages his/her time well and is respectful of my time. ڈاکٹر صاحب نے میرے اور اپنے وقت کا خیال رکھا۔	1	2	3	4	5
3.	Is truthful, upfront, and does not keep things from me that I believe I should know. ڈاکٹر صاحب نے میرے مرض کی صورت حال پوری سچائی سے بیان کی۔	1	2	3	4	5
4.	Talks to me in a way that I can understand, while also being respectful. ڈاکٹر صاحب نے میرے احساسات کا خیال رکھا اور عزت سے میرا علاج کیا۔	1	2	3	4	5



RAWALPINDI MEDICAL UNIVERSITY

5

Resident/Fellow Evaluation of Faculty Teaching

Evaluators: _____

Evaluation of: _____

Date: _____

Evaluation information entered here will be anonymous and made available only in aggregated form.

S#		Strongly Disagree	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Strongly Agree
PATIENT CARE							
1.	Teaches current scientific evidence for daily patient management*						
2.	Explains rationale behind clinical judgements/decisions*						
3.	Teaches clear diagnostic algorithms*						
4.	Teaches clear treatment algorithms*						
PATIENT CARE - OPERATIVE AND PROCEDURAL SKILLS							
5.	Teaches operative/procedural skills during cases*						
6.	Allows learners to perform operative/procedural skills when appropriate*						
MEDICAL KNOWLEDGE							
7.	Teaches relevant pathophysiology						



RAWALPINDI MEDICAL UNIVERSITY

FINAL Evaluation Scoring Sheet

Name of Resident	Name of Supervisor	Year of Training

Date _____	Faculty #1 (165)	Faculty #2 (165)	Faculty #3 (165)	Average Score	Duration of Assessment _____ Specialty _____ Hospital _____ Unit _____	
Medical Patient Care (30)				___/30		
Medical Knowledge (30)				___/30		
Professionalism (35)				___/35		
Interpersonal and Communication Skills (20)				___/20		
System Based Practice (35)				___/35		
Practice Based Learning and Improvement (15)				___/15		
Overall Rating						
Average:	___/165			___/30	___/80	___/56
					Grand Total	___/331



RAWALPINDI MEDICAL UNIVERSITY

Logbook complete incomplete

Portfolio complete incomplete

Leave /absentees: _____

Comments



RAWALPINDI MEDICAL UNIVERSITY

7

RESIDENT SELF-ASSESSMENT PROFORMA

Resident Name _____ Date _____

Year of Training _____ Hospital Name _____ Unit _____

<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Not Applicable	I rarely demonstrates (<25% of the time)	I do this Sometimes (25-50% of the time)	I do this most of the time (50-75% of the time)	I do this all the time (>75% of the time)

1.	I am able to acquire accurate and relevant histories from my patients in an efficient, prioritized and hypothesis driven fashion.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
2.	I am able to seek and obtain appropriate, verified, and prioritized data from secondary sources (e.g. family, records and pharmacy)	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
3.	I am able to perform accurate physical examinations that are appropriately targeted to the patient's complaints.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
4.	I am able to synthesize all available data, including interview, physical exam, and preliminary lab data to define each patient's central clinical problem.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
5.	I am able to develop prioritized differential diagnoses, evidence based diagnostic and therapeutic plans for common conditions in Internal Medicine patients.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
6.	I am able to recognize situations with a need for urgent or emergent medical care, including life threatening conditions.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
7.	I am able to recognize when to seek additional guidance.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
8.	I am able to provide appropriate preventive care.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
9.	I am able to manage patients with common clinical disorders in the practice of outpatient internal medicine with minimal supervision.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
10.	I am able to manage patients with common clinical disorders in the practice of outpatient internal medicine with minimal supervision.	<input type="checkbox"/> NA	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

Appendix “D”

Workplace Based Assessments –

Guidelines for Supervisors for Assessment of Generic & Specialty Specific Competency

The Candidates of all DIPLOMA programs will be trained and assessed in the following five generic competencies and also specialty specific competencies.

A. Generic Competencies:

i. **P**
a
t
i
e
n
t

C
a
r
e
:

- a. Patient Care competency will include skills of history taking, examination, diagnosis, counseling Plan care through ward teaching departmental conferences, morbidity and mortality meetings core curriculum lectures and training in procedures and operations.

- b. The candidate shall learn patient care through ward teaching departmental conferences, morbidity and mortality meetings, care curriculum lectures and training in procedures and operations.
- c. The Candidate will be assessed by the supervisor during presentation of cases on clinical ward rounds, scenario based discussions on patients management multisource feedback evaluation, Direct observation of Procedures (DOPS) and operating room assessments
- d. These methods of assessments will have equal weightage.

ii. Medical knowledge and Research

- a. The candidate will learn basic factual knowledge of illnesses relevant to the specialty through lectures/discussions on topics selected from the syllabus, small group tutorials and bed side rounds
- b. The medical knowledge/skill will be assessed by the teacher during
- c. The candidate will be trained in designing research project, data collection data analysis and presentation of results by the supervisor.
- d. The acquisition of research skill will be assessed as per regulations governing thesis evaluation and its acceptance.

iii. Practice and System Based Learning

- a. This competency will be learnt from journal clubs, review of literature policies and guidelines, audit projects medical error investigation, root cause analysis and awareness of health care facilities,.
- b. The assessment methods will include case studies, personation in morbidity and mortality review meetings and presentation of audit projects if any.

c. These methods of assessment shall have equal weight-age

iv. **Communication Skills**

- a. These will be learn it from role models, supervisor and workshops.
- b. They will be assessed by direct observation of the candidate whilst interacting with the patients, relatives, colleagues and withmultisource feedback evaluation.

v. **Professionalism as per Hippocratic oath**

- a. This competency is learnt from supervisor acting as a role model ethical case conferences and lectures on ethical issues such asconfidentially informed consent end of life decisions, conflict of interest, harassment and use of human subjects in research.
- b. The assessment of Trainee will be through multisource feedback evaluation according to preforms of evaluation and its scoring method.

B. Specialty Specific Competences.

- i. The candidates will be trained in operative and procedural skills according to a quarterly based schedule.
- ii. The level of procedural Competency will be according to a competency table to be developed by each specialty
- iii. The following key will be used for assessing operative and procedural competencies:

- | | |
|--|--------------------------|
| a. Level 1 Observer status
present and observing the supervisor and senior colleagues | The candidate physically |
| b. Level 2 Assistant status
assisting procedures andoperations | The candidate |
| c. Level 3 Performed under supervision
operating or performing aprocedure under direct supervision | The candidate |
| d. Level 4 Performed independently
operating or performing aprocedure without any supervision | The candidate |

vi. **Procedure Based Assessments (PBA)**

- a. Procedural competency will assess the skill of consent taking, preoperative preparation and planning, intraoperative general and specific tasks and postoperative management
- b. Procedure Based assessments will be carried out during teaching and training of each procedure.
- c. The assessors may be supervisors, consultant colleagues and senior Trainee.
- d. The standardized forms will be filled in by the assessor after direct observation.
- e. The Trainee's evaluation will be graded as satisfactory, deficient requiring further training and not assessed at all.
- f. Assessment report will be submitted
- g. A satisfactory score will be required to be eligible for taking final examination.

Appendix "E"

Supervisor's Annual Review Report.

This report will consist of the following components: -

- I. Verification and validation of Log Book of operations & procedures according to the expected number of operations and procedures performed (as per levels of competence) determined by relevant board of studies.
- II. A 90% attendance in academic activities is expected. The academic activities will include: Lectures, Workshops other than mandatory workshops, journal Clubs Morbidity & Mortality Review Meetings and Other presentations.
- III. Assessment report of presentations and lectures
- IV. Compliance Report to meet timeline for completion of research project.
- V. Compliance report on personal Development Plan.
- VI. Multisource Feedback Report, on relationship with colleagues, patients.
- VII. Supervisor will produce an annual report based on assessments as per proforma in appendix-G and submit it to the Examination Department.
- VIII. 75% score will be required to pass the Continuous Internal Assessment on annual review.

*

Guidelines for program Evaluation

Appendix “L”

Program Evaluation Committee (PEC)

Background

The purpose of this committee is to conduct and document a formal, systematic evaluation of the program & curriculum on an annual basis.

Membership

The chair and membership of the committee are appointed by the Program Director. The membership of the committee consists of at least two members of the program faculty, and at least one Trainee/subspecialty Trainee.

Meeting Frequency

The committee meets, at a minimum, annually.

Responsibilities of the PEC

- The PEC actively participates in planning, developing, implementing and evaluating the educational activities of the program.
- The PEC reviews and makes recommendations for revision of competency-based goals and objectives.
- Addresses areas of non-compliance with the standards; and reviews the program annually using written evaluations of faculty, Trainee, and others.

Required Documentation of PEC Activities

The PEC provides the GMEC with a written Annual Program Evaluation (APE) in the format that is appended to this document. This document details a written plan of action to document initiatives to improve performance based on monitoring of activities described below.

The APE document provides evidence that the PEC is monitoring the following areas, at a minimum:

1. Trainee performance

2. Faculty development

3. Graduate performance, including performance of program graduates on the certifying examination

4. Assessment of program quality through:

. **Annual confidential and formal feedback** from Trainee and faculty about the program quality;

b. **Assessment of improvements needed based on program evaluation feedback** from faculty, Trainee, and others

5. Continuation of progress made on prior year's action plan

6. Prepare and submit a written plan of action to

a. document initiatives to improve performance in one of more of the areas identified,

b. Delineate how they will be measured and monitored

c. Document continuation of progress made on the prior year's action plan

Template for Documentation of Annual Program Evaluation and Improvement

Date of annual program evaluation meeting: _____

Attendees:

- i. Program Director: _____
- ii. Program Coordinator: _____
- iii. Associate/Assistant PD: _____
- iv. Faculty Members: _____
- v. Trainee: _____

	Reviewed	Discussion, Follow up, Action Plan
	√	
1. Current Program Requirements & Institutional Requirements		
2. Most recent Internal Review Summary to ensure all recommendations are addressed		

<p>3. Review Curriculum</p> <p>a. effective mechanism in place to distribute Goals & Objectives (G&O) to Trainee and faculty</p> <p>b. overall program educational goals</p> <p>c. up-to-date competency-based G&O for each assignment</p> <p>d. up-to-date competency-based G&O for each level of training</p> <p>e. G&O contain delineation of Trainee responsibilities for patient care, progressive responsibility for patient management, and supervision of Trainee</p>		
4. Evaluation System		

<p>a. Trainee formative evaluation meets or exceeds program requirement</p> <p>b. Trainee summative evaluation meets or exceeds program requirement</p> <p>c. Faculty evaluation meets or exceeds program requirement</p> <p>d. program evaluation meets or exceeds program requirement.</p>		
<p>5. Didactic Curriculum</p> <p>a. includes recognizing the signs of fatigue and sleep deprivation</p> <p>b. the didactic curriculum meets program requirements</p> <p>c. the didactic curriculum meets Trainee needs</p>		
<p>6. Clinical Curriculum – the effectiveness of in-patient and ambulatory teaching experience (structure, case mix, meets Trainee’s needs)</p>		
<p>7. Volume and variety of patients and procedures (case log data) meets requirements and Trainee’ needs</p>		
<p>8. Summary of written program evaluations completed by both faculty and Trainee</p>		
<p>9. Trainee supervision complies with Program Requirement</p>		

10. Recruiting results		
11. Duty hour monitoring results		
12. Track all research and scholarly activities of faculty and Trainee/fellows		
13. Educational outcomes: is the program achieving its educational objectives? What aggregate data (Trainee as a group) can be used to show the program is achieving its objectives? Board scores, in-service training exam scores, graduate surveys, employer surveys, etc.		

15. Clinical outcomes – specialty-specific metrics aligned with dept./division QI initiatives, disease outcomes, patientsafety initiatives (describe Trainee involvement), QI projects (describe Trainee involvement)		
---	--	--

Note:

If deficiencies are found during this process, the program should prepare a written plan of action to document initiatives to improve performance in the areas that have been identified. The action plan should be reviewed and approved by the teaching faculty and documented in meeting minutes.

Annual Program Evaluation (APE)

SWOT Analysis

- S:** Strengths
- W:** Weaknesses
- O:** Opportunities
- T:** Threats

SOWT Analysis (Fishbone – Ishikawa Diagram)

Action Plan

Item	Strategy	Resources	Timeline	Evaluation
Preservation Goals (Strengths)				
Elimination Goals (Weaknesses)				
Achievement Goals (Opportunities)				

Avoidance Goals (Threats)				

1. SECTION –X

Miscellaneous attached documents



1.pdf



2.pdf



3.pdf



4.pdf



5.pdf



6.pdf



7.pdf



8.pdf



9.pdf



OCEX form-2790.pdf



Annexure - A -
ICO-OCEX form.docx



Annexure - B - DOPS
form.docx



Annexure - C -
OSCAR form.docx