Competency-Based Dynamic Curriculum for MD/ MS Unani

(PRESCRIBED BY NCISM)

Semester II

Applied Basics of Amraze Jild wa Tazeeniyat

(Dermatology and Cosmetology)

(SUBJECT CODE : UNIPG-AB-AJT)

(Applicable from 2024-25 batch, from the academic year 2024-25 onwards until further notification by NCISM)

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BOARD OF UNANI, SIDDHA AND SOWA-RIGPA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
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Preface

The field of dermatology is advancing at a remarkable pace, driven by rapid developments in medical technology, innovative diagnostic tools, and a deeper scientific understanding of the skin's role in systemic health. As the largest and most exposed organ of the human body, the skin not only serves as a physical barrier but also plays crucial roles in immune defense, thermoregulation, sensory perception, and even psychosocial well-being. With the increasing burden of skin diseases, environmental challenges, and heightened awareness of personal appearance, the demand for competent dermatological care is more urgent than ever. This evolving landscape necessitates a curriculum that is both comprehensive and future-oriented, one that equips students with the ability to address current clinical challenges while also adapting to technological and scientific advancements. Unani medicine, with its holistic approach, can offer valuable insights when integrated with modern dermatological practices, thereby creating a more inclusive and patient-centered model of care.

The Fundamentals of Amraze Jild wa Tazeeniyat paper has been carefully structured to serve this dual purpose. It provides Unani medical students with a strong academic and clinical foundation in dermatology by combining classical Unani principles with modern medical science. The course emphasizes competency-based education, which ensures that students not only acquire theoretical knowledge but also master essential clinical skills through guided practice. Learners are trained in comprehensive skin assessments, pattern recognition in dermatological conditions, and the application of modern diagnostic tools such as dermoscopy, Wood's lamp examination, and skin biopsies. A critical component of the course is teaching students how to formulate differential diagnoses by integrating clinical features, laboratory investigations, and histopathological findings. Additionally, the curriculum covers foundational subjects including the embryological development of the skin, detailed anatomical and physiological functions, and the pathophysiology of both common and rare skin disorders. Case-based learning, clinical rotations, and interdisciplinary exposure provide students with hands-on experience and prepare them for real-world clinical settings. These elements ensure that graduates can approach skin diseases not only from a diagnostic and therapeutic perspective but also with empathy, cultural sensitivity, and a holistic understanding.

Recognizing the digital transformation in healthcare, the paper also explores the impact of emerging technologies such as telemedicine, artificial intelligence (AI), and digital imaging in the diagnosis and management of skin conditions. These innovations are revolutionizing the way dermatology is practiced, improving diagnostic accuracy, enhancing patient access, and streamlining follow-ups. By introducing students to these tools early in their education, the course fosters a mindset of adaptability and lifelong learning. Moreover, the integration of Unani concepts like Mizaj (temperament), lifestyle management, and natural therapies with evidence-based medical practices bridges traditional and modern approaches, providing a more rounded care model. The curriculum encourages students to appreciate the strengths of both systems and to apply them judiciously for the benefit of patients. Ultimately, the Fundamentals of Amraze Jild wa Tazeeniyat is not just a subject—it is a transformative learning experience that nurtures knowledgeable, skilled, and compassionate practitioners. It empowers future dermatologists to lead with innovation, grounded in tradition, and committed to delivering quality care that meets the demands of a changing global healthcare environment.

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Summary & Credit Framework
Semester II

Module Number & Name	Credits	Notional Learning Hours	Maximum Marks of assessment of modules (Formative Assessment)
M 1. جلد اور اس کے زوائد کا جنینی ارتقاء Jild aur uske Zawā'id ka Janinī Irtiqā (Embryonic development of skin & its appendages)	2	60	50
M 2. جلد اور اسکے متعلقات کی اطلاقی تشریح و منافع Jild aur uske Muta'lliqāt ki Itlāqī Tashrīh wa Manāfe (Applied anatomy and physiology of skin and its appendages)	2	60	50
M 3. زود حساسیت والرجی Zūd Hassāsiyat wa Allergy (Hypersensitivity & allergy)	1	30	25
M 4. جلد کی شعاعی حیاتیات Jild ki Shu'āyi Hayātiyāt (Photobiology of skin)	1	30	25
M 5. اندمال زخم Indimāl-i Zakhm (Wound healing)	1	30	25
M 6. امراض جلد کے مریضوں تک طبی و تشخیصی رسائی Amrāz-i Jild ke Marīzon tak Tibbi wa Tashkhīsī Rasāy'i (Approach to the patient with skin diseases)	2	60	50
M 7. جلدی ماہیت المرضی Jildi Mahiyatul Marazi (Dermatopathology)	1	30	25
M 8. تشخیصات امراض جلد Tashkeesāt-i Amraze Jild (Diagnostic dermatology)	3	90	75
M 9. اصول علاج و طریقہ ہائے علاج Usūl-i Ilāj wa Tarīqahā'y Ilāj (Principles of treatment and modalities)	3	90	75
	16	480	400

Credit frame work

UNIPG-AB-AJT consists of 9 modules totaling 16 credits, which correspond to 480 Notional Learning Hours. Each credit comprises 30 hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

Important Note: The User Manual MD/MS Unani is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic. In case of difficulty and questions regarding the curriculum, write to syllabus24uni@ncismindia.org.

Course Code and Name of Course

Course code	Name of Course
UNIPG-AB-AJT	Applied Basics of Amraze Jild wa Tazeeniyat (Dermatology and Cosmetology)

Table 1 : Course learning outcomes and mapped Program learning outcomes

CO No	A1 Course learning Outcomes (CO) UNIPG-AB-AJT At the end of the course UNIPG-AB-AJT, the students should be able to	B1 Course learning Outcomes mapped with program learning outcomes.
CO1	Demonstrate competency and proficiency in providing holistic patient care in dermatology and clinical cosmetology including cutaneous manifestation of systemic disease.	PO1
CO2	Conduct procedures / Tadabeer, recommend Ilaj Bil Ghiza, and develop comprehensive Unani treatment plans for dermatological ailments and cosmetological conditions.	PO2,PO3
CO3	Evaluate critically, recommend appropriate investigations, diagnose, and manage cases of dermato-cosmetology; and advise measures for the prevention and rehabilitation of dermatological conditions.	PO3
CO4	Integrate of the transdisciplinary research to globalize Unani medicine with standardization and evidence-based practices.	PO4
CO5	Demonstrate the qualities and strengths to leverage professional and technological advancement for translational research leading to innovation and Entrepreneurship in Unani medicine.	PO5,PO6
CO6	Deliver dermatological care to the community with professionalism, adhering to ethical standards and regulatory guidelines.	PO3,PO6
CO7	Demonstrate commitment to continuous learning by translating, teaching, and training Unani principles, and facilitate the global integration of Unani medicine.	PO7,PO8

Table 2 : Course contents (Modules- Credits and Notional Learning Hours)

2A Module Number	2B Module & units	2C Number of Credits	Notional Learning Hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
1	**M-1 جلداوراس کے زوائد کاجنینی ارتقاء Jild aur uske Zawā'id ka Janinī Irtiqā (Embryonic development of skin & its appendages)** This module, deals with the embryonic development of the skin and its appendages. The course will cover the formation of skin layers and appendages, emphasizing ectoderm-mesoderm interactions. Clinical correlations will highlight congenital skin disorders and the relevance to regenerative medicine and dermatological therapies, providing a solid foundation for understanding skin development in both health and disease. • **M1.U1** جلدکی جنینی نشونما Jild ki Janinī Nashonumā (Embryonic development of skin) 1.1.1 جلد کی جنینی نشو نما کے درجات (Stages of embryonic development of skin) 1.1.2 جلد کی نشوونما میں شامل مالیکیولر سگنلنگ راستے (Molecular signaling pathways involved in skin development) 1.1.3 عام جلدی خلقی امراض (Common congenital skin disorders) 1.1.4 علم الجنین کا یونانی تصور (Unani concept of embryology) 1.1.5 تحقیق جلد میں علم الجنین کی اہمیت و معالجات (Importance of embryological knowledge in dermatological practice and research) • **M1.U2** نسیج غددی کی جنینی نشونما Nasīj-i Ghudadi ki Janinī Nashonumā (Embryonic development of glandular tissue)	2	10	20	30	60

	1.2.1 سیج غددی کی جنینی نشو نما کے درجات (Stages of embryonic development of glandular tissues) 1.2.2 نسیج غددی کی جنینی نشو نما کے سگنلنگ راستے (Signaling pathways of glandular tissue development) 1.2.3 مزاج اور اخلاط کے عدم توازن کا غددی افعال پر اثر (Role of imbalance in mizaj and akhlat on glandular dysfunction) 1.2.4 غددی ارتقاء کو متاثر کرنے والے عوامل (Factors affecting glandular development) • **M1.U3** اظفار کی جنینی نشونما Azfār ki Janinī Nashonumā (Embryonic development of nail) 1.3.1 ناخن کی جنینی ابتدا (Embryological origin of nails) 1.3.2 ناخن کی نشوونما کو قابو میں رکھنے والے جینیاتی عوامل اور مالیکیولر راستے (Genetic factors and molecular pathways regulatling nail development) 1.3.3 جنینیاتی بے ترتیبی سے متعلق امراض اظفار (Nail abnormalities related to embryonic dysfunction) 1.3.4 ناخن کی تشکیل پر اثر انداز ہونے والے عوامل (Factors affecting nail formation) 1.3.5 خلقی امراض اظفار (congenital nail disorders) • **M1.U4** بالوں کی جنینی نشونما Bālon ki Janinī Nashonumā (Embryonic development of hair) 1.4.1 بالوں کی نشوونما کے مراحل (stages of hair development) 1.4.2 جریب شعریہ کی تشکیل میں شامل جینیاتی اور مالیکیولر سگنلز (genetic and molecular signals involved in hair follicle formation) 1.4.3 مزاج اور اخلاط کا بالوں کی نشوونما پر اثر (Impact of Temperaments and humours on Hair Development)					

	• **M1.U5** جلد کے خلیات اساسی Jild ke Khaliyāt-i Asāsī (Stem cells of skin) 1.5.1 خلیات اساسی کے مختلف ذرائع (Sources of Stem Cells) .1.5.2 جلد کے توازن، مرمت اور تولید نو میں خلیات اساسی کا کردار (Role of stem cells in skin homeostasis, repair, and regeneration) 1.5.3 خلیات اساسی کے میکانزم اور سگنلز (Mechanisms and signals of skin stem cells) 1.5.4 ری جنریٹیو میڈیسین میں خلیات اساسی کی اہمیت (Significance of skin stem cells in regenerative medicine)					
2	**M-2 جلد اور اسکے متعلقات کی اطلاقی تشریح و منافع Jild aur uske Muta'lliqāt ki Itlāqī Tashrīh wa Manāfe (Applied anatomy and physiology of skin and its appendages)** This module explores the applied anatomy and physiology of the skin and its appendages.The course will cover the detailed structure of the skin, including the epidermis, dermis, and hypodermis, as well as the appendages such as hair, nails, and sebaceous and sweat glands. The focus will be on understanding how these structures function in health and disease. Clinical correlations will be emphasized, such as the skin's role in thermoregulation, wound healing, barrier protection, and the physiological basis for conditions like acne, eczema, and burns. • **M2.U1** جلد کے افعال و خوردبینی ساخت Jild ke Af'āl wa Khurdbīnī Sākht (Ultra-structure & function of Skin) 2.1.1 جلد کی خلیاتی ترکیب (Cellular composition of the skin) 2.1.2 یونانی طب میں جلد کی ساخت کی تشریح (Unani descriptions of skin anatomy) 2.1.3 ڈرمل-ایپیڈرمل جنکشن کے ساختی اجزاء (Structural Components of the Dermal-Epidermal Junction)	2	10	20	30	60

	• **M2.U2** غدد دہنیہ کے افعال و خوردبینی ساخت Ghudad-i Duhniyyā ke Af‘āl wa Khurdbīnī Sākht (Ultra-structure & function of sebaceous gland) 2.2.1 غدد دہنیہ کی ساخت اور فعلیات (Anatomy and physiology of Sebaceous glands) 2.2.2 غدد دہنیہ کو قابو میں رکھنے والے عوامل (Factors regulating sebaceous gland) 2.2.3 جلدی امراض میں مبتلا مریضوں کے معیارِ زندگی پر غدد دہنیہ کی صحت کا اثر (Impact of sebaceous gland health on quality of life in patients of skin disorders) • **M2.U3** غدد عرقیہ کے افعال و خوردبینی ساخت Ghudad-i ‘Araqiyyā ke Af‘āl Wa Khurdbīnī Sākht (Ultra-structure & function of sweat glands) 2.3.1 غدد عرقیہ کی ساخت اور فعلیات (Anatomy and physiology of sweat glands) 2.3.2 غدد عرقیہ کے افعال اور معیارِ زندگی (Sweat gland function and quality of life) 2.3.3 ایکرائن تعریق پر اعصابی کنٹرول (Neural control of Eccrine sweating) • **M2.U4** بالوں کے افعال و خوردبینی ساخت Bālon ke Af‘āl wa Khurdbīnī Sākht (Ultra-structure & function of hair) 2.4.1 بالوں کی ساخت اور افعال (Anatomy and function of hair) 2.4.2 بالوں کا حیاتیاتی دور (Hair cycle) 2.4.3 مزاج اور اخلاط کا بالوں کی ساخت اور رنگ پر اثر (Impact of temperament and Akhlat on hair structure and colour) • **M2.U5** جلد کے افعال مخصوصہ Jild ke Af‘āl-i Makhsūsā (Specific Functions of skin) 2.5.1 جلد کے افعال (Functions of skin) 2.5.2 جلد میں وٹامن ڈی کی ترکیب کا عمل (Process of vitamin D synthesis in the skin)					

	2.5.3 میلانو جینیسیس کا عمل (Process of melenogenesis) 2.5.4 اسبابِ ستہ ضروریہ کا جلد کے توازن کو برقرار رکھنے میں کردار (Role of Asbabe sitta Zarooriya for maintaining skin homeostasis) • **M2.U6** جلدی نباتات صغریٰ Jildi Nabātāt-i Sughrā (Microflora of skin) 2.6.1 جلد پر پائے جانے والے خوردبینی اجسام کا تنوع (Diversity of microorganisms residing on the skin) 2.6.2 جلد کے بیکٹیریل، وائرل، اور فنگل کمیونٹیز کے جینومک مطالعات (Genomic studies of skin bacterial, viral and fungal communities) • **M2.U7** خطہ جاتِ جلد Khittājāt-i Jild (Dermatomes) 2.7.1 معالجات جلد و خطہ جات جلد (Dermatomes in Dermatology) 2.7.2 اعصابی نظام کی شمولیت سے پیدا ہونے والے جلدی امراض (Skin disease due to nerve involvement) • **M2.U8** ناخون کے افعال و خوردبینی ساخت Nākhūn ke Af'āl wa Khurdbīnī Sākht (Ultra-structure & function of Nail) 2.8.1 ناخن کی ساخت اور فعلیات (Anatomy and physiology of nails) 2.8.2 طرزِ زندگی کے عوامل کا ناخن کی صحت اور نشوونما پر اثر (Impact of lifestyle factors on nail health and growth)					
3	**M-3 زود حساسیت والرجی Zūd Hassāsiyat wa Allergy (Hypersensitivity & allergy)** This module focuses on hypersensitivity and allergies, covering their definitions, types, mechanisms, and treatment approaches. This module aims to equip learners with a comprehensive understanding of hypersensitivity and allergies, enabling them to recognize, diagnose, and manage these conditions effectively • **M3.U1** زود حساسیت والرجی کا عمومی جائزہ Zūd Hassāsiyat wa Allergy ka 'Umūmī Jāyi'zā (Overview of Hypersensitivity & Allergy)	1	5	10	15	30

	3.1.1 زود حساسی ردعمل اور الرجیز (Hypersensitivity reactions and allergies) 3.1.2 عام الرجک مادے اور ان کے محرکات (Common allergens and their triggers) 3.1.3 زود حساسیت و الرجی میں مزاجی شمولیت (Temperamental susceptibility to allergies and hypersensitivity) • **M3.U2** زودحساسیتقسماول Zūd Hassāsiyat Qism Awwal (Type 1 Hypersensitivity) 3.2.1 زود حساسیت قسم اول :میکانیہ اور علامات و نشانیاں (Type I hypersensitivity: Mechanism and Clinical Features) 3.2.2 زود حساسیت قسم اول کے ردعمل کی روک تھام کے طریقے (strategies to prevent Type 1 hypersensitivity reactions) • **M3.U3** زودحساسیتقسمدوم Zūd Hassāsiyat Qism Dom (Type 2 Hypersensitivity) 3.3.1 زود حساسیت قسم دوم :میکانیہ اور علامات و نشانیاں (Type II hypersensitivity: Mechanism and Clinical Features) 3.3.2 زود حساسیت قسم دوم سے منسلک امراض (Conditions associated with Type-2 hypersensitivity) • **M3.U4** زودحساسیتقسموم Zūd Hassāsiyat Qism Som (Type 3 Hypersensitivity) 3.4.1 زود حساسیت قسم سوم :میکانیہ اور علامات و نشانیاں (Type III hypersensitivity: Mechanism and Clinical Features)					

	3.4.2 زود حساسیت قسم سوم سے منسلک امراض (Conditions associated with Type-3 hypersensitivity) • **M3.U5** زود حساسیت قسم چہارم Zuūd Hassāsiyat Qism Chahārum (Type 4 Hypersensitivity) 3.5.1 زود حساسیت قسم چہارم :میکانیہ اور علامات و نشانیاں (Type IV hypersensitivity: Mechanism and Clinical Features) 3.5.2 زود حساسیت قسم چہارم سے منسلک امراض (Conditions associated with Type-4 hypersensitivity) 3.5.3 زود حساسیت قسم چہارم کے علاج کی حکمت عملیاں (Treatment strategies for type 4 hypersensitivity)					
4	**M-4 جلد کی شعاعی حیاتیات Jild ki Shu'āyi Hayātiyāt (Photobiology of skin)** The module "Photobiology of Skin" explores the interactions between light and skin, focusing on the biological processes that occur in response to various types of radiation, particularly ultraviolet (UV) light. The module also deals with the mechanisms of skin damage, including the formation of reactive oxygen species and the role of DNA damage in skin aging and carcinogenesis • **M4.U1** الٹراوائلٹ اور مرئی اشعاع–ذرائع و جلدی انجذاب Ultraviolet aur Mara'i Ish'ā- Zarā'i' wa Jildi Injizāb (Ultraviolet and visible radiation- source and absorption in the Skin) 4.1.1 برقی مقناطیسی طیف (Electromagnetic spectrum) 4.1.2 الٹرا وائلٹ شعاعوں کی اقسام، ذرائع اور خصوصیات (Ultraviolet rays: types, sources and characteristics) 4.1.3 سورج سے حفاظت کی اہمیت اور الٹرا وائلٹ شعاعوں سے جلد کا تحفظ (Importance of Sun Safety and skin protection against ultraviolet radiation)	1	5	10	15	30

	• **M4.U2** جلد پر ظاہر ہونے والے فوٹو کیمیکل ردعمل Jild par Zāhir hone wāle Photochemical Radd-i ʻAmal (Photochemical reactions leading to skin responses) 4.2.1 الٹرا وائلٹ روشنی کے جلد پر اثرات اور فوٹو کیمیکل نقصان (Effects of ultraviolet light on skin and photochemical damage) 4.2.2 مرئی اور انفرا ریڈ شعاعوں کے خلاف جلدی ردِ عمل (Cutaneous responses to visible and infrared radiation) 4.2.3 الٹرا وائلٹ روشنی اور جلدی مدافعتی نظام (Ultraviolet light and the cutaneous immune system) • **M4.U3** شعاعی حساسیت Shuʻāyi Hassāsiyat (Photosensitization) 4.3.1 شعاعی حساسیت: تصور، میکانیہ اور ردعمل (Photosensitization: Concept, Mechanism and response) 4.3.2 شعاعی حساسیت کو بڑھانے والے عوامل اور اس کے سد باب کے طریقے (Increasing Factors of photosensitization and its prevention strategies)					
5	**M-5 اندمال زخم Indimāl-i Zakhm (Wound healing)** This module is designed to learn complex and dynamic physiologic process of wound healing. This module also aims to provide an in-depth understanding of the phases of wound healing i.e. hemostasis, inflammation, proliferation, and remodelling. This module also provides knowledge of the factors that can impede or promote wound healing. • **M5.U1** قرحات جلد کا میکانیہ Qarhāt-i Jild ka Mikāniyyā (Mechanism of cutaneous wound healing) 5.1.1 اندمال زخم کی منافع الاعضائی و ماہیت المرضی حیثیت (Physiology and pathophysiology of wound healing) 5.1.2 جانچ و پیمائش (Assessment and measurement)	1	5	10	15	30

	• **M5.U2** قرحات کی تخلیق نو و مرمت Qarhāt ki Takhlīq-i Nav wa Marammat (Wound regeneration and repair) 5.2.1 تخلیق و مرمت (Regeneration and repair) 5.2.2 زخم کی تخلیق نو کے اختراعی طریقے (Innovative approaches in wound regeneration) • **M5.U3** ابتدائی و ثانوی طریقہ اندمال Ibtidāyi wa Sānwi Tariqa'-i Indimāl (Healing by primary and secondary intention) 5.3.1 ابتدائی طریقہ اندمال (Healing by primary intention) 5.3.2 ثانوی طریقہ اندمال (Healing by secondary intention) • **M5.U4** اندمال کے مراحل Indimāl ke Marāhil (Phases of wound healing) 5.4.1 اندمال زخم کا منافع الاعضائی طریقہ کار (Physiologic processes involved in wound healing) 5.4.2 اندمال زخم کے خلیاتی و مالیکولر مراحل (Cellular and molecular events of wound healing) • **M5.U5** اندمال کو متاثر کرنے والے عوامل Indimāl ko Muta'ssir karne wale Awāmil (Factors affecting wound healing) 5.5.1 زخم بھرنے کے عمل فروغ دینے والے عوامل (Factors Promoting the process of wound healing) 5.5.2 زخم بھرنے کے عمل کو سست کرنے والے عوامل (Factors slowing the process of wound healing)					

6	**M-6 امراض جلد کے مریضون تک طبی وتشخیصی رسائی Amrāz-i Jild ke Marīzon tak Tibbi wa Tashkhīsī Rasāy'i (Approach to the patient with skin diseases)** This module is designed to equip postgraduate students with the skills necessary for the accurate clinical assessment of dermatological conditions. It emphasizes, communication skills in history-taking, critical steps of history taking and clinical examination and differential diagnosis. It also provides an opportunity to learn morphology of skin lesions, clinical scoring systemto measure severity of skin diseases and assessment of impact of skin diseases on quality of life of the patients. This module laysthe groundwork for the students for a holistic perspective on dermatologic Unani care fostering proficient Unani specialists in dermatology who can deliver both effective and compassionate care to their patients. • **M6.U1** معالجات جلد میں اخلاقی پہلو Moālajāt-i Jild mein Akhlāqī Pahlū (Ethical Consideration in Dermatological Practice) 6.1.1 معالجات جلد میں طبی اخلاقیات (Ethics in the clinical practice of dermatology) 6.1.2 معالجات جلد کی پریکٹیس میں عصری حیاتیاتی اخلاقی تنازعات (Bioethical conflicts in current dermatology practice) 6.1.3 ٹیلی ڈرمیٹولوجو کی کے اخلاقی مسائل (Ethical issues in teledermatology) • **M6.U2** روداد طبی Rūdād-i Tibbi (Medical History taking) 6.2.1 روداد طبی کا آرٹ (Art of History taking) 6.2.2 معالجات جلد میں روداد طبی کی اہمیت (Importance of history taking in dermatology) • **M6.U3** جلد کا جسمانی معائنہ Jild ka Jismānī Mu'ā'ina (Physical examination of Skin)	2	10	20	30	60

	6.3.1 جلد کے جسمانی معائنے کا طریقہ کار (Methods of physical examination in dermatology) 6.3.2 معالجات جلد کی مختلف سریریاتی نشانیاں (Different clinical signs in dermatology) • **M6.U4** اصابات جلد Isābāt-i Jild skin lesions 6.4.1 ابتدائی اصابات جلد (Primary Skin Lesions) 6.4.2 ثانوی اصابات جلد (Secondary skin Lesions) 6.4.3 اصابات جلد مخصوصہ (Specific Skin Lesions) • **M6.U5** امراض جلد میں مستعمل پیمائش کے عام میزان و مقیاس Amrāz-i Jild mein Musta'mal Payma'ish ke 'Ām Mīzān wa Miqyās (Common assessment scales and clinical scoring system) 6.5.1 معالجات جلد کے عام تشخیصی پیمانے (Common assessment scales in dermatology) 6.5.2 معالجات جلد میں مستعمل طبی اسکورنگ سسٹمز (Clinical scoring systems in dermatology)					
7	**M-7 جلدی ماہیت المرضی Jildi Mahiyatul Marazi (Dermatopathology)** This module aims to provide a comprehensive framework for recognizing and interpreting the histological responses of skin to various injuries, inflammation and diseases process. This module also enhances our understanding of different patterns of tissue reactions and dermatological inflammation. The knowledge of minor and major tissue reaction patterns is essential to foster critical thinking to understand complexities of skin pathology • **M7.U1** نسیجی ردعمل کی بڑی شکلیں Nasīji Radd-i 'Amal ki Badi Shaklein (Major tissue reaction patterns) 7.1.1 بڑے نسیجی ردعمل کی شکلوں کی خصوصیات (Features of major tissue reaction patterns)	1	5	10	15	30

	7.1.2 جلد کی ری ایکٹیو یونٹس (Reactive units of skin) 7.1.3 التہابی خطہ جات جلد اور ان کے شکلی نمونے (Inflammatory dermatomes and their morphological patterns) • **M7.U2** نسیجی ردعمل کی چھوٹی شکلیں Nasīji Radd-i ʻAmal ki Choti Shaklein (Minor tissue reaction patterns) 7.2.1 چھوٹے نسیجی ردعمل کی شکلوں کی خصوصیات (Features of minor tissue reaction patterns) 7.2.2 بشری ردعمل کی شکلیں (Epidermal reaction patterns) 7.2.3 ادمّی ردعمل کی شکلیں (Dermal reaction patterns) • **M7.U3** التہاب جلد کی اہم صورتیں Iltihāb-i Jild ki Aham Sūratein (Patterns of Dermatological Inflammation) 7.3.1 التہابی جلدی امراض کی ماہیت المرضی تبدیلیاں (Pathological changes in inflammatory skin diseases) 7.3.2 التہابی جلدی امراض کی مختلف شکلیں اور علامات ونشانیاں (Patterns and features of inflammatory skin diseases)					
8	**M-8 تشخیصات امراض جلد Tashkeesāt-i Amraze Jild (Diagnostic dermatology)** This module gives an understanding of diagnostic procedures like direct microscopy, histological staining, Woods lamp examination, microbial culture, dermoscopy, trichoscopy, diascopy, electron microscopy, ELISA, Western blot test, PCR, biopsy and Mu'aina Nabz, Baul wa Baraz will facilitate to learn skills independently in diagnosing cutaneous diseases. The interpretation of the reports of investigations combined with a patient's medical history can make an invaluable impact on the treatment and prognosis of skin diseases.	3	15	30	45	90

	• **M8.U1** معائنہ نبض، بول و براز و اصابات جلد برائے تشخیص امراض جلد Mu‘āina-i Nabz, Bawl wa Barāz wa Isābāt-i jild barā’y Tashkīs-i Amrāz-i Jild (Mu’aina Nabz, Baul wa Baraz Isābāt-i jild for diagnosis of skin diseases) 8.1.1 معائنہ نبض (Mu‘āina-i Nabz) 8.1.2 معائنہ بول و براز (Mu‘āina-i Bawl wa Barāz) 8.1.3 اصابات جلد کی مزاجی حیثیت (Temperament of the skin lesions) • **M8.U2** تشخیصی عملیات۔۱ Tashkhisi Amaliyāt-1 (Diagnostic Procedures-1) 8.2.1 ووڈ لیمپ (Woods Lamp) 8.2.2 ڈرموسکوپی (Dermoscopy) 8.2.3 ٹرائیکو اسکوپی (Trichoscopy) 8.2.4 ڈایااسکوپی (Diascopy) 8.2.5 الکٹران مائکرواسکوپی (Electron Microscopy) • **M8.U3** تشخیصی عملیات۔۲ Tashkhisi Amaliyāt-2 (Diagnostic Procedures-2) 8.3.1 پیچ ٹیسٹ (Patch Test) 8.3.2 پرک ٹیسٹ (Prick Test) 8.3.3 ہسٹوپیتھولوجیکل اسٹینینگ پروسیزرس (Histopathological Staining Procedures)					

	• **M8.U4** تشخیصی عملیات۔۳ Tashkhisi Amaliyāt-3 (Diagnostic Procedures-3) 8.4.1 انزائم لنکڈ ایمیونواسے (Enzyme -linked immunoassay (ELISA)) 8.4.2 ویسٹرن بلاٹ (Western Blot) 8.4.3 پولیمریز چین ری ایکشن (Polymerase chain reaction (PCR)) 8.4.4 ایمینو فلوریسنس ٹیسٹ (Immunofluorescence test) 8.4.5 ایمینو پر آکسیڈیز ٹیسٹ (Immunoperoxidase Test) • **M8.U5** اخزاع Ikhteza' (Biopsy) 8.5.1 بایوپسی اور اس کی اقسام (Biopsy and its types) 8.5.2 غیر سرطانی اصابات کے ہسٹو پیتھو لوجیکل ظواہر (Histopathological findings of a cutaneous non-neoplastic lesion) • **M8.U6** مائیکولوجیکل اور دیگر تفتیشی امتحانات Mycological aur dīgar Taftīshī Imtīhānāt Mycological & other tests					

	8.6.1 اسکن اسکریپنگ اور نیل کلپنگ (Skin scrapings and nail clippings) 8.6.2 فنگل کلچر (fungal culture)					
9	**M-9 اصول علاج وطریقہ ہائے علاج Usūl-i Ilāj wa Tarīqahā'y Ilāj (Principles of treatment and modalities)** The module is designed to provide a comprehensive understanding of the basic principles of Unani interventions such as diet, Ilaj bit Tadbeer and therapeutics. The treatment of dermatological ailments is a critical area of skill and knowledge for dermatologist. This module also aims to equip students with the foundational knowledge necessary to apply different treatment modalities effectively. This module also provides a comprehensive understanding and sound knowledge of recent advances which foster theoretical competency and professionalism in the students. • **M9.U1 غذائیات** Ghiza'iyāt (Dietetics) 9.1.1 غذائیت کا یونانی نقطہ نظر (Dietetics in Unani perspectives) 9.1.2 خود مناعتی جلد ی امراض کی غذائیں (Diet in auto-immune skin diseases) 9.1.3 حار جلدی امراض میں علاج بالغذا (Dietary management for Haar Jild-i Amrāz) 9.1.4 بارد جلدی امراض میں علاج بالغذا (Dietary management for Haar Jild-i Amrāz) 9.1.5 نقص تغذیہ سے لاحق ہونے والے جلدی امراض کی غذائیں (Diet in nutritional deficiency disorders of Skin) • **M9.U2 جلدی علاج بالتدبیر** Jildi Ilāj bit Tadbeer (Regimenal therapies related to skin) 9.2.1 معالجات جلد میں علاج بالتدبیر کی طبی افادیت (Efficacy of regimental therapy in dermatology) 9.2.2 حجامہ، فصد، عملِ کئی اور ارسالِ علَق (Hijamah, Fasd, Amle Kai and Irsal –i- Alaq) 9.2.3 تقشیر و ڈرمابریژن (Chemical Peeling and Dermabrasion)	3	15	30	45	90

	• **M9.U3** جلدی طریقہ ہائے علاج Jildi Tarīqahā'y Ilāj (Dermato-therapeutics) 9.3.1 مقامی علاج (Topical Therapy) 9.3.2 نظامی علاج (Systemic Therapy) 9.3.3 علاج بالضوء (Phototherapy) 9.3.4 اسٹم سیل تھیراپی (Stem cell Therapy) 9.3.5 ٹیلی پیتھی (Telepathy)					
		16	80	160	240	480

Table 3 : Modules - Unit - Module Learning Objectives and Session Learning Objective- Notional Learning Hours- Domain-Level- TL Methods

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical/experiential) learning session, the students should be able to)	3C Notional Learning Hours	3D Lecture/ Practical/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/ Shows how/ Knows how/ Know)	3G Teaching Learning Methods
Module 1 : جلداوراس کے زوائد کا جنینی ارتقاء Jild aur uske Zawā'id ka Janinī Irtiqā (Embryonic development of skin & its appendages)						
Module Learning Objectives **(At the end of the module, the students should be able to)** 1. Describe the key stages of embryonic development of skin and its appendages and explain the underlying molecular mechanisms involved in each stage. 2. Identify and analyze different layers of embryonic skin and its appendages, accurately labeling structures and noting developmental differences. 3. Reflect on embryonic development's role in congenital skin disorders and regenerative medicine, emphasizing ethical considerations in related research and treatment. Compare classical Unani concepts with modern embryology						
Unit 1 جلد کی جنینی نشونما Jild ki Janinī Nashonumā (Embryonic development of skin) 1.1.1 جلد کی جنینی نشو نما کے درجات (Stages of embryonic development of skin) 1.1.2 جلد کی نشوونما میں شامل مالیکیولر سگنلنگ راستے (Molecular signaling pathways involved in skin development) 1.1.3 عام جلدی خلقی امراض (Common congenital skin disorders) 1.1.4 علم الجنین کا یونانی تصور (Unani concept of embryology) 1.1.5 تحقیق جلد میں علم الجنین کی اہمیت و معالجات (Importance of embryological knowledge in dermatological practice and research) **References:** 1,2,3,4						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**

CO1,CO3,CO6	Describe the key stages of embryonic development of skin.	1	Lecture	CK	Knows-how	L&PPT
CO1,CO4,CO5 ,CO6	Explain the molecular signalling pathways involved in skin development.	2	Lecture	CAN	Knows-how	L&GD
CO1,CO3,CO6 ,CO7	Demonstrate common congenital skin disorders and relate them to disruptions in normal embryonic development.	2	Practical1.1	PSY-GUD	Shows-how	D,D-M,DIS
CO3,CO6,CO7	Demonstrate different stages of skin development during embryogenesis	2	Practical1.2	PSY-MEC	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO6 ,CO7	Discuss the differences between classical Unani concepts and modern embryology.	2	Experiential - Learning1.1	CS	Knows-how	BS,DIS,LS,PER
CO1,CO3,CO6 ,CO7	Discuss about the connection between embryonic development and clinical cases of skin abnormalities	2	Experiential - Learning1.2	CS	Knows-how	BS,DIS,PL
CO1,CO3,CO6 ,CO7	Discuss the importance of embryological knowledge in dermatological practice and research	2	Experiential - Learning1.3	CE	Knows-how	BS,DIS,LS,PER

Unit 2 سیج غددی کی جنینی نشونما Nasīj-i Ghudadi ki Janinī Nashonumā (Embryonic development of glandular tissue)

1.2.1 نسیج غددی کی جنینی نشو نما کے درجات (Stages of embryonic development of glandular tissues)

1.2.2 نسیج غددی کی جنینی نشو نما کے سگنلنگ راستے (Signaling pathways of glandular tissue development)

1.2.3 مزاج اور اخلاط کے عدم توازن کا غددی افعال پر اثر (Role of imbalance in mizaj and akhlat on glandular dysfunction)

1.2.4 غددی ارتقاء کو متاثر کرنے والے عوامل (Factors affecting glandular development)

References: 1,2,4,5

3A	3B	3C	3D	3E	3F	3G

CO1,CO3,CO6	Discuss the embryonic origins of glandular tissues and the roles of specific signalling pathways	1	Lecture	CAN	Knows-how	L&GD,L&PPT,L_VC
CO1,CO4,CO6	Explain the processes of morphogenesis and differentiation	1	Lecture	CE	Knows-how	L,L&GD,L&PPT,L_VC
CO3,CO4,CO5,CO6	Demonstrate the stages of glandular tissue development, illustrating key cellular structures and interactions.	2	Practical1.3	PSY-MEC	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO6,CO7	Demonstrate the physical signs of temperamental imbalance related to glandular dysfunction	2	Practical1.4	PSY-GUD	Shows-how	CBL,D,D-M,DIS,KL
CO1,CO3,CO7	Discuss the effect of hormones on the development and function of skin glands.	1	Experiential - Learning1.4	CE	Knows-how	BS,DIS,FC,LS,PER
CO1,CO3,CO7	Discuss the role of embryonic development of glandular tissue in diagnosing congenital skin disorders	1	Experiential - Learning1.5	CE	Knows-how	BS,DIS,LS
CO1,CO3,CO7	Develop empathy for individuals affected by glandular disorders, understanding the emotional and physical challenges they face as a result of developmental anomalies	2	Experiential - Learning1.6	AFT-RES	Knows-how	BS,DIS,PrBL,RP
CO1,CO3,CO6,CO7	Discuss the significance of glandular development in overall skin health and disease.	1	Experiential - Learning1.7	CAN	Does	BS,DIS,PER

Unit 3 اظفار کی جنینی نشونما Azfār ki Janinī Nashonumā (Embryonic development of nail)

1.3.1 ناخن کی جنینی ابتدا (Embryological origin of nails)

1.3.2 ناخن کی نشوونما کو قابو میں رکھنے والے جینیاتی عوامل اور مالیکیولر راستے (Genetic factors and molecular pathways regulatling nail development)

1.3.3 جنینیاتی بے ترتیبی سے متعلق امراض اظفار (Nail abnormalities related to embryonic dysfunction)

1.3.4 ناخن کی تشکیل پر اثر انداز ہونے والے عوامل (Factors affecting nail formation)

1.3.5 حلقی امراض اظفار (congenital nail disorders)

References: 1,2,4

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Explain about the embryological origins of nails.	1	Lecture	CK	Knows-how	L&PPT
CO1,CO4,CO6	Explain the genetic factors and molecular pathways that regulate nail development	2	Lecture	CE	Knows-how	L&PPT
CO1,CO3	Demonstrate and describe the key stages of nail development.	2	Practical1.5	PSY-ORG	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO7	Demonstrate various nail abnormalities related to embryonic dysfunction.	2	Practical1.6	PSY-MEC	Shows-how	D,D-M,DIS
CO1,CO3,CO7	Discuss the influence of maternal nutrition, hormones, and overall health on the development of nails in the em bryo.	1	Experiential - Learning1.8	CE	Does	DIS,PER
CO1,CO3,CO7	Discuss how environmental factors during pregnancy can affect nail formation.	2	Experiential - Learning1.9	CE	Knows-how	BS,DIS,JC,PL,PER
CO1,CO3,CO7	Discuss the need for greater awareness of congenital nail disorders within the medical community.	2	Experiential - Learning1.10	CE	Knows-how	BS,DIS,JC,LS,PER

Unit 4 بالوں کی جنینی نشونما Bālon ki Janinī Nashonumā (Embryonic development of hair)

1.4.1 بالوں کی نشوونما کے مراحل (stages of hair development)

1.4.2 جریب شعریہ کی تشکیل میں شامل جینیاتی اور مالیکیولر سگنلز (genetic and molecular signals involved in hair follicle formation)

1.4.3 مزاج اور اخلاط کا بالوں کی نشوونما پر اثر (Impact of Temperaments and humours on Hair Development)

References: 1,2,6,7

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO6	Discuss the stages of hair follicle development.	1	Lecture	CE	Knows-how	DIS,L&PPT
CO1,CO3,CO6,CO7	Demonstrate hair follicle development.	2	Practical1.7	PSY-MEC	Shows-how	D,D-M,DIS
CO1,CO3,CO7	Discuss the influence of temperaments and humors on fetal hair colour development.	2	Practical1.8	PSY-MEC	Shows-how	D-M,KL,PER
CO1,CO3,CO6	Discuss the genetic and molecular signals involved in hair follicle formation.	2	Experiential - Learning1.11	CE	Does	DIS,PER
CO3,CO4,CO7	Analyze the Impact of Temperaments and humours on Hair Development.	3	Experiential - Learning1.12	CAN	Does	BS,DIS,JC,LS

Unit 5 جلد کے خلیات اساسی Jild ke Khaliyāt-i Asāsī (Stem cells of skin)

1.5.1 خلیات اساسی کے مختلف ذرائع (Sources of Stem Cells)

1.5.2. جلد کے توازن، مرمت اور تولید نو میں خلیات اساسی کا کردار (Role of stem cells in skin homeostasis, repair, and regeneration)

1.5.3 خلیات اساسی کے میکانزم اور سگنلز (Mechanisms and signals of skin stem cells)

1.5.4 ری جنریٹیو میڈیسین میں خلیات اساسی کی اہمیت (Significance of skin stem cells in regenerative medicine)

References: 1,2

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO4,CO6	Discuss the roles of stem cells in skin homeostasis, repair, and regeneration.	1	Lecture	CE	Knows-how	DIS,L&PPT
CO3,CO4,CO6	Demonstrate various sources of stem cells	2	Practical1.9	PSY-GUD	Shows-how	D,D-M,DIS,KL,PER
CO3,CO5,CO6	Demonstrate the mechanisms and signals that regulate the differentiation of skin stem cells into specialized cell types.	2	Practical1.10	PSY-GUD	Shows-how	CBL,D,D-M,DIS,KL,PER
CO1,CO3,CO6	Discuss the significance of skin stem cells in regenerative medicine and in various skin disorders.	3	Experiential-Learning1.13	CE	Knows-how	BS,DIS,LS,PL,PER
CO1,CO2,CO6	Review and analyse recent published literature on the use of skin stem cells in dermatological conditions.	2	Experiential-Learning1.14	AFT-VAL	Does	DIS,JC,LS,PER

Practical Training Activity

Practical 1.1 : Congenital skin disorders

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate common congenital skin disorders and relate them to disruptions in normal embryonic development with the help of methods such as models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Quiz, Viva, LAQs or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 1.2 : Stages of skin development

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate different stages of skin development during embryogenesis with the help of methods such as models, charts, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Quiz, Viva, LAQs, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 1.3 : Stages of Glandular tissue development

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate the stages of glandular tissue development using models and charts to illustrate key cellular structures and interactions. This demonstration will include a step-by-step explanation of each developmental stage, highlighting the differentiation of epithelial cells and the formation of glandular structures

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Quiz, Viva, LAQs, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 1.4 : Temperamental imbalance and glandular dysfunction

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate physical signs of temperamental imbalance related to glandular dysfunction. If the patient is unavailable, alternative instructional methods such as models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through OSCE, OSPE, Mini-CEX, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 1.5 : Stages of Nail development
Total Learning Hours: 2 Hours Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate Stages of Nail development with the help of methods such as models, videos, or presentations will be used to ensure effective learning. Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic. Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Quiz, Viva, LAQs, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.
Practical 1.6 : Nail abnormalities due to embryonic dysfunction
Total Learning Hours: 2 Hours Step 1: Introduction & Demonstration (60 Minutes) - The teacher will demonstrate various nail abnormalities related to embryonic dysfunction with the help of methods such as models, L-PPT, videos, or presentations will be used to ensure effective learning. Step 2: Group Discussion (30 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic. Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Quiz, viva or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.
Practical 1.7 : Hair follicle development
Total learning hour- 2 hour Step-1 Introduction & Demonstration (60 Minutes) The teacher will demonstrate hair follicle development on models and charts. The teacher will explain the connections between these concepts, encouraging student participation and discussion Step 2: Group Discussion (30 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic. Step 3: Assessment & Feedback (30 Minutes) Conduct a viva or LAQ for assessment

Practical 1.8 : Effect of temperament and humours on hair colour development
Total learning hour- 2 hours Total Learning Hours: 1 Hour Step 1: Introduction & Demonstration (30 Minutes) - The teacher will demonstrate the Effect of temperament and humours on hair colour development with the help of methods such as models, videos, or presentations will be used to ensure effective learning. Step 2: Group Discussion (30 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic. A class discussion will explore the connections between the humors, temperaments, and hair health. This session will enhance understanding of how historical theories relate to modern views on hair development while fostering critical thinking and communication skills.
Practical 1.9 : Stem cell sources
Total Learning Hours- 2 Hours Step-1: Introduction & Demonstration (45 Minutes) The teacher will use models and charts to demonstrate key sources of skin stem cells, like the epidermis and hair follicles, and explain the signaling pathways that regulate their differentiation. Step-2: Group Discussion (1 Hour) Students will repeat the practical and record their findings in record books Step-3: Assessment & Feedback (15 Minutes) Discussions will deepen students' understanding of these processes, with visual aids helping them grasp how stem cells function and specialize in skin development. Conduct a quick quiz, viva, or short presentation on the same topic and provide constructive feedback to students.
Practical 1.10 : Skin stem cell defferentiation
Total Learning Hours: 2 Hours Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate mechanisms and signals that regulate the differentiation of skin stem cells into specialized cell types with the help of methods such as models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through a quiz or viva, by their peers, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Experiential learning Activity

Experiential-Learning 1.1 : Classical unani concept and modern embryology

Total Learning Hours: 3 Hours

Step 1: Research and Preparation (Duration: 45 Minutes) The teacher will form groups for a library session and allocate specific topics to each group. Students will research in the library to critically analyze and understand the contrasting views between classical Unani medicine and modern embryology regarding human development.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes) After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes) Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas

Experiential-Learning 1.2 : Embryonic development and skin abnormalities

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 1.3 : Embryology in dermatological practice

Total Learning Hours: 2 Hours

Step 1: Literature Search & Review (Duration: 45 Minutes) - The student will be assigned the topic "importance of embryological knowledge in dermatological practice and research" for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student’s performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Experiential-Learning 1.4 : Hormones and skin gland

Total Learning Hours: 2 Hours

Step 1: Literature Search & Review (Duration: 45 Minutes) - The student will be assigned the topic "effect of hormones on the development and function of skin glands." for a presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student’s performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Experiential-Learning 1.5 : Embryonic development of glandular tissue and congenital skin disorders

Total Learning Hours: 1 Hour

Step 1: Research and Preparation (Duration: 30Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 15 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 15 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 1.6 : Emotional and physical challenges in glandular disorders

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 1.7 : Skin health and glandular development

Total Learning Hours: 1 Hour

Step 1: Literature Search & Review (Duration: 30 Minutes) - The student will be assigned the topic "Skin health and glandular development" for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 15 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 15 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Experiential-Learning 1.8 : Maternal health and Nail development

Total Learning Hours: 1 Hour

Step 1: Research and Preparation (Duration: 30 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic of "influence of maternal nutrition, hormones, and overall health on the development of nails in the embryo" for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 15 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 15 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 1.9 : Envirenmental factors and Nail development

Total Learning hour- 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)The teacher will schedule peer teaching sessions on how environmental factors during pregnancy affect nail formation. Students will research specific influences such as toxins, stress, and nutrition.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange

Step 3: Discussion & Assessment (Duration: 30 Minutes) The discussions will enhance understanding of the impact of environmental factors on fetal nail development, and raise awareness about the importance of a healthy pregnancy environment.

Assessment and Feedback- (30 min) Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness

Experiential-Learning 1.10 : Congenital nail disorders awareness

Total Learning Hours: 2 Hours

Step 1: Literature Search & Review (Duration: 45 Minutes) - The student will be assigned the topic "Congenital nail disorders awareness" for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Experiential-Learning 1.11 : Mechanism of Hair follicle formation

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 1.12 : Unani concept of Hair development

Total Learning Hours: 3 Hours

Step 1: Research and Preparation (Duration: 1 Hour)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 1 Hour 30 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 1.13 : Stem cells in Regenerative Medicine

Total Learning Hours: 3 Hours

Step 1: Research and Preparation (Duration: 1 hour)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 1 hour 30 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 1.14 : Review of literature on stem cells in dermatology

Total Learning Hours: 2 Hours

Step 1: Literature Search & Review (Duration: 45 Minutes) - The student will be assigned the topic "use of skin stem cells in dermatological conditions. " for a journal club presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Modular Assessment

Assessment method	**Hour**
Instructions – Conduct a structured modular assessment. Assessment will be for 50 marks for this module. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Scenario-Based Discussion – 25 Marks Engage students in a Scenario-Based Discussion to assess their clinical reasoning and decision-making skills. The discussion will focus on real or simulated cases of Viral Skin Infections, evaluating the student's approach to diagnosis, management, and patient counseling. 2. Chart making- (25 marks) Students will create a Chart on embryonic development of the skin and its appendages. or	4

Any practical in converted form can be taken for assessment. (25) and Any experiential, such as portfolios/reflections/presentations can be taken as an assessment. (25)	

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical/experiential) learning session, the students should be able to)	3C Notional Learning Hours	3D Lecture/ Practical/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/ Shows how/ Knows how/ Know)	3G Teaching Learning Methods
Module 2 : جلد اور اسکے متعلقات کی اطلاقی تشریح و منافع Jild aur uske Muta'lliqāt ki Itlāqī Tashrīh wa Manāfe (Applied anatomy and physiology of skin and its appendages)						
Module Learning Objectives **(At the end of the module, the students should be able to)** 1. Describe structure of skin and its appendages and explain the mechanism of sebum and sweat secretion. 2. Identify and analyze different layers of skin and its appendages, accurately labeling structures and noting vascular and nerve supply. 3. Appraise the importance of understanding the skin structure and function in maintaining overall skin health						
Unit 1 جلد کے افعال و خوردبینی ساخت Jild ke Af'āl wa Khurdbīnī Sākht (Ultra-structure & function of Skin) 2.1.1 جلد کی خلیاتی ترکیب (Cellular composition of the skin) 2.1.2 یونانی طب میں جلد کی ساخت کی تشریح (Unani descriptions of skin anatomy) 2.1.3 ڈرمل-ایپیڈرمل جنکشن کے ساختی اجزاء (Structural Components of the Dermal-Epidermal Junction) **References:** 1,2,3,14						
CO1,CO3,CO6	Describe the cellular composition of the epidermis and dermis.	1	Lecture	CK	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO6	Compare Unani descriptions of skin anatomy with contemporary dermatological knowledge.	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC,LS
CO1,CO3,CO6	Demonstrate the Structural Components of the Dermal-Epidermal Junction	1	Practical2.1	PSY-GUD	Shows-how	D,D-M,DIS,KL

CO1,CO3,CO6	Demonstrate cutaneous vasculature, nerves and receptors.	1	Practical2.2	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO4,CO6	Discuss about the composition and function of the subcutis (hypodermis) in relation to overall skin health	2	Experiential-Learning2.1	CE	Knows-how	BS,DIS,LS,PER
CO1,CO3,CO4,CO6	Discuss the significance of the basement membrane	1	Experiential-Learning2.2	CAN	Knows-how	BS,DIS,LS,PER

Unit 2 غدد دہنیہ کے افعال و خوردبینی ساخت Ghudad-i Duhniyyā ke Af'āl wa Khurdbīnī Sākht (Ultra-structure & function of sebaceous gland)

2.2.1 غدد دہنیہ کی ساخت اور فعلیات (Anatomy and physiology of Sebaceous glands)

2.2.2 غدد دہنیہ کو قابو میں رکھنے والے عوامل (Factors regulating sebaceous gland)

2.2.3 جلدی امراض میں مبتلا مریضوں کے معیارِ زندگی پر غدد دہنیہ کی صحت کا اثر (Impact of sebaceous gland health on quality of life in patients of skin disorders)

References: 1,2,14

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Describe the histological structure of sebaceous glands.	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO4,CO6	Demonstrate the physiology of Sebaceous glands.	2	Practical2.3	PSY-GUD	Shows-how	D,D-M,DIS,KL,L_VC
CO1,CO3,CO4,CO6	Demonstrate the factors regulating sebaceous gland size and sebum production.	1	Practical2.4	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO4,CO6	Discuss the impact of sebaceous gland health on self-esteem and quality of life in patients with acne and related skin disorders.	2	Experiential-Learning2.3	CE	Knows-how	BS,DIS,LS,PER

Unit 3 غدد عرقیہ کے افعال و خوردبینی ساخت Ghudad-i 'Araqiyyā ke Af'āl Wa Khurdbīnī Sākht (Ultra-structure & function of sweat glands)

2.3.1 غدد عرقیہ کی ساخت اور فعلیات (Anatomy and physiology of sweat glands)

2.3.2 غدد عرقیہ کے افعال اور معیارِ زندگی (Sweat gland function and quality of life)

2.3.3 ایکرائن تعریق پر اعصابی کنٹرول (Neural control of Eccrine sweating)

References: 1,2,14

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Describe the neural control of Eccrine sweating.	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO4,CO6	Demonstrate the anatomical structure of sweat glands.	2	Practical2.5	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO4	Demonstrate the intricate physiological mechanisms involved in sweat secretion and composition of sweat.	1	Practical2.6	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO4,CO6	Discuss the connection between sweat gland function and quality of life.	2	Experiential-Learning2.4	CAN	Knows-how	BS,DIS,LS,PL

Unit 4 بالوں کے افعال و خوردبینی ساخت Bālon ke Af'āl wa Khurdbīnī Sākht (Ultra-structure & function of hair)

2.4.1 بالوں کی ساخت اور افعال (Anatomy and function of hair)

2.4.2 بالوں کا حیاتیاتی دور (Hair cycle)

2.4.3 مزاج اور اخلاط کا بالوں کی ساخت اور رنگ پر اثر (Impact of temperament and Akhlat on hair structure and colour)

References: 1,2,4,7,14

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5,CO6	Describe the structure of hair, hair pigmentation and molecular control of hair colour.	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO4,CO6	Demonstrate microscopic anatomy and function of hair.	2	Practical2.7	PSY-GUD	Shows-how	D,D-M,DIS,KL,L_VC
CO1,CO3,CO4,CO6	Discuss hair cycle and hair cycle dependent changes in melanocytes.	2	Experiential-Learning2.5	CE	Knows-how	BS,DIS,LS,PER
CO1,CO3,CO4,CO6,CO7	Discuss the impact of temperament and Akhlat on hair structure and colour.	2	Experiential-Learning2.6	CAN	Knows-how	BS,DIS,LS

Unit 5 جلد کے افعال مخصوصہ Jild ke Af'āl-i Makhsūsā (Specific Functions of skin)

2.5.1 جلد کے افعال (Functions of skin)

2.5.2 جلد میں وٹامن ڈی کی ترکیب کا عمل (Process of vitamin D synthesis in the skin)

2.5.3 میلانوجینیسیس کا عمل (Process of melenogenesis)

2.5.4 اسبابِ ستہ ضروریہ کا جلد کے توازن کو برقرار رکھنے میں کردار (Role of Asbabe sitta Zarooriya for maintaining skin homeostasis)

References: 1,2,14

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Describe protective function of stratum corneum.	2	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO6,CO7	Demonstrate the role of immune cells present in the skin in defending against infections and triggering immune responses.	2	Practical2.8	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO6,CO7	Demonstrate the process of vitamin D synthesis in the skin.	1	Practical2.9	PSY-GUD	Knows-how	D,D-M,DIS,KL
CO1,CO3,CO4,CO6,CO7	Discuss the process of melanogenesis	2	Experiential-Learning2.7	CE	Knows-how	BS,DIS,LS,PER
CO1,CO3,CO6,CO7	Discuss the role of Asbabe sitta Zarooriya for maintaining skin homeostasis	2	Experiential-Learning2.8	CE	Knows-how	BS,DIS,LS,PER

Unit 6 جلدی نباتات صغری Jildi Nabātāt-i Sughrā (Microflora of skin)

2.6.1 جلد پر پائے جانے والے خوردبینی اجسام کا تنوع (Diversity of microorganisms residing on the skin)

2.6.2 جلد کے بیکٹیریل، وائرل، اور فنگل کمیونٹیز کے جینومک مطالعات (Genomic studies of skin bacterial, viral and fungal communities)

References: 1,14

3A	3B	3C	3D	3E	3F	3G

CO1,CO3,CO4,CO6	Discuss “microflora” or “microbiota” and diversity of microorganisms residing on the skin	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO6	Demonstrate the composition of Skin Microbiome Findings in Dermatologic Disorders.	2	Practical2.10	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO6	Discuss the genomic studies of skin bacterial and fungal communities.	2	Experiential-Learning2.9	CE	Does	BS,DIS,PER
CO1,CO3,CO6	Discuss the genomic studies of skin viral communities	2	Experiential-Learning2.10	CE	Does	BS,DIS,PER
Unit 7 خطہ جاتِ جلد Khittājāt-i Jild (Dermatomes) 2.7.1 معالجات جلد و خطہ جات جلد (Dermatomes in Dermatology) 2.7.2 اعصابی نظام کی شمولیت سے پیدا ہونے والے جلدی امراض (Skin disease due to nerve involvement) **References:** 1,14						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO1,CO3,CO5,CO6	Describe dermatome and its relevance in the study and diagnosis of skin conditions that are linked to nerve distributions.	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO6	Demonstrate different dermatomes on the body corresponding to a specific spinal nerve.	2	Practical2.11	PSY-GUD	Shows-how	CBL,D,D-M,DIS,KL
CO1,CO3,CO4,CO6	Discuss the importance of dermatomes in Dermatology.	2	Experiential-Learning2.11	CE	Knows-how	BS,DIS,LS,PER
CO1,CO3,CO6,CO7	Develop empathy by discussing patient experiences related to skin disease due to nerve involvement and the effects on their daily lives, emphasizing the role of dermatome knowledge in treatment	2	Experiential-Learning2.12	AFT-VAL	Knows-how	BS,DIS,PER,PBL,PrBL
CO1,CO3,CO5,CO6	Demonstrate dermatomes, labelling each area clearly and explaining its clinical relevance to peers.	1	Practical2.12	PSY-GUD	Shows-how	D,D-M,DIS,KL
Unit 8 ناخون کے افعال و خوردبینی ساخت Nākhūn ke Af‘āl wa Khurdbīnī Sākht (Ultra-structure & function of Nail)						

2.8.1 ناخن کی ساخت اور فعلیات (Anatomy and physiology of nails)

2.8.2 طرزِ زندگی کے عوامل کا ناخن کی صحت اور نشوونما پر اثر (Impact of lifestyle factors on nail health and growth)

References: 1,2

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5,CO6	Describe chemical and physical properties of Nails.	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO4,CO6	Demonstrate the anatomical components of nails and various functions of nails	2	Practical2.13	PSY-GUD	Shows-how	D,D-M,DIS,KL,L_VC
CO1,CO3,CO4,CO6	Discuss the impact of lifestyle factors on nail health and growth and develope empathy towards individuals with nail disorders by recognizing the psychological and social implications of nail health issues.	3	Experiential-Learning2.13	CE	Knows-how	BS,DIS,PER

Practical Training Activity

Practical 2.1 : Dermal-Epidermal Junction

Total Learning Hours: 1 Hour

Step 1: Introduction & Demonstration (30 Minutes) - The teacher will facilitate a hands-on activity using charts and models to demonstrate the structural components of the dermal-epidermal junction

Step 2: Group Discussion (15 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (15 Minutes) -Students' understanding will be assessed through Quiz, Viva, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 2.2 : Cutaneous vasculature

Total Learning Hours: 1 Hours

Step 1: Introduction & Demonstration (30 Minutes) - The teacher will demonstrate cutaneous vasculature, nerves, and receptors with the help of charts and models

Step 2: Group Discussion (15 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (15 Minutes) -Students' understanding will be assessed through Presentation, Viva, Quiz or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 2.3 : physiology of Sebaceous glands.

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate physiology of Sebaceous glands with the help of methods such as models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Presentations, Quiz, Viva, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 2.4 : Factors regulating sebaceous gland size and sebum production.

Total Learning Hours: 1 Hour

Step 1: Introduction & Demonstration (30 Minutes) - The teacher will demonstrate Factors regulating sebaceous gland size and sebum production with the help of models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (15 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (15 Minutes) -Students' understanding will be assessed through Presentations, Viva, LAQs, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 2.5 : Anatomy of Sweat gland

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will facilitate an activity using charts or models to demonstrate the anatomical structure of sweat glands

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic. They will then explore how disruptions in sweat gland function, like hyperhidrosis (excessive sweating) or anhidrosis (lack of sweating), affect physical comfort and health. The discussion will conclude with students reflecting on the clinical relevance of understanding sweat glands, including how this knowledge can be applied in the treatment of sweat-related disorders and in improving overall well-being.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Presentations, Viva, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 2.6 : Mechanism of sweat secretion

Total Learning Hours: 1 Hour

Step 1: Introduction & Demonstration (30 Minutes) -The teacher will demonstrate on the physiological mechanisms involved in sweat secretion with the help of charts and models

Step 2: Group Discussion (15 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (15 Minutes) -Students' understanding will be assessed through Presentations, Viva, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 2.7 : Anatomy and physiology of hair
Total Learning Hours: 2 Hours Step 1: Introduction & Demonstration (45 Minutes) - The teacher will organize a demonstration on the microscopic anatomy and function of hair. Using prepared charts and models, students will observe the structural components of hair, including the hair shaft, follicle, and associated glands. The demonstration will highlight how these structures contribute to hair growth and function. Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic. Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Quiz, Viva, LAQs or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.
Practical 2.8 : Process of vitamin D synthesis
Total Learning Hours: 1 Hour Step 1: Introduction & Demonstration (30 Minutes) - The teacher will facilitate an activity using charts to illustrate the process of vitamin D synthesis in the skin. Step 2: Group Discussion (15 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic. Step 3: Assessment & Feedback (15 Minutes) -Students' understanding will be assessed through Quiz, Viva LAQs or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.
Practical 2.9 : Role of immune cells of the skin
Total Learning Hours: 2 Hours Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate the role of immune cells present in the skin in defending against infections and triggering immune responses with the help of models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Quiz, Viva, LAQs, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 2.10 : Dermatological disorders and skin microbiome

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate the composition of Skin Microbiome Findings in Dermatologic Disorders with the help of models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. During the post-activity discussion, students will engage in a collaborative exploration of the skin microbiome and its role in dermatologic disorders. Here's how the discussion might unfold:

1. Understanding the Skin Microbiome
2. Microbial Imbalance and Dermatologic Disorders
3. Personalized Treatments and Therapeutic Approaches
4. Research and Future Directions

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Quiz, Viva, LAQs or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 2.11 : Dermatome demostration

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate dermatomes on the body corresponding to a specific spinal nerve. If the patient is unavailable, alternative instructional methods such as models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through OSCE, OSPE, Mini-CEX, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 2.12 : Dermatome demonstration

Total Learning Hours: 1 Hour

Step 1: Introduction & Demonstration (30 Minutes) -The teacher will lead a demonstration on creating a visual model of dermatomes, with students labeling each area and explaining its clinical relevance

Step 2: Group Discussion (15 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (15 Minutes) -Students' understanding will be assessed through OSCE, OSPE, Mini-CEX, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 2.13 : Anatomy and physiology of Nails

Total Learning Hours:2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will present a video or a chart demonstrating the anatomical components of nails and their various functions.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Quiz, Viva LAQs, Presentations, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Experiential learning Activity

Experiential-Learning 2.1 : composition of function of subcutis

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 2.2 : Basement membrane

Total Learning Hours: 1 Hour

Step 1: Research and Preparation (Duration: 15 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 30 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 15 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 2.3 : Sebaceous gland health and quality of life

Total Learning Hours: 2 Hours

Step 1: Literature Search & Review (Duration: 45 Minutes) - The student will be assigned the topic "Sebaceous gland health and quality of life" for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Experiential-Learning 2.4 : sweat gland disorders and quality of life

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 2.5 : Hair cycle

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Experiential-Learning 2.6 : Impact of mizaj and Akhlat on hair structure and color

Total Learning Hours- 2

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will organize a book review session on the topic " impact of temperament and Akhlat on hair structure and colour." Students will review selected texts that explore the influence of the four humors and temperaments on hair characteristics.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange

Step 3: Discussion & Assessment (Duration: 30 Minutes) After the book review session, students will engage in a class-wide discussion on the topic of how temperament and Akhlat (the four humors) influence hair structure and color. Each student will share insights from the texts they reviewed, explaining the ancient theory of the four humors—blood, phlegm, yellow bile, and black bile—and how they were believed to affect various bodily traits, including hair characteristics.

Experiential-Learning 2.7 : Melenogenesis

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 2.8 : Asbabe sitta zarooriya and skin homeostasis

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 2.9 : Genomic studies on skin bacterial and fungal communities

Total Learning Hours: 2 Hours

Step 1: Literature Search & Review (Duration: 45 Minutes) - The student will be assigned the topic " genomic studies of skin bacterial and fungal communities." for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness

Experiential-Learning 2.10 : genomic studies on skin viral cmmunities

Total Learning Hours: 2 Hours

Step 1: Literature Search & Review (Duration: 45 Minutes) - The student will be assigned the topic "genomic studies of skin viral communities" for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness

Experiential-Learning 2.11 : Importance of Dermatomes

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 2.12 : Skin disease due to dermatome involvement

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 2.13 : Life style and nail health

Total Learning Hours: 3 Hours

Step 1: Research and Preparation (Duration: 75 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 75 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes) Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.	
Modular Assessment	
Assessment method	**Hour**
Instructions – Conduct a structured modular assessment. Assessment will be for 50 marks for this module. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Scenario-Based Discussion – 20 Marks Engage students in a Scenario-Based Discussion to assess their clinical reasoning and decision-making skills. The discussion will focus on real or simulated cases of Viral Skin Infections, evaluating the student's approach to diagnosis, management, and patient counseling. 2. Chart Making – 15 Marks Students will create a Chart on anatomy and physiology of the skin and its appendages. Assessment will be based on: • Content Accuracy (5 Marks) • Clarity and Organization (5 Marks) • Visual Presentation (5 Marks) 3. Oral Viva – 15 Marks Evaluate understanding of applied anatomy and physiology of the skin and its appendages. Or Any practical in converted form can be taken for assessment. (25) and Any experiential, such as portfolios/reflections/presentations can be taken as an assessment. (25)	4

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical/experiential) learning session, the students should be able to)	3C Notional Learning Hours	3D Lecture/ Practical/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/ Shows how/ Knows how/ Know)	3G Teaching Learning Methods
Module 3 : زود حساسیت والرجی Zūd Hassāsiyat wa Allergy (Hypersensitivity & allergy)						
Module Learning Objectives **(At the end of the module, the students should be able to)** 1. Define hypersensitivity and allergy, & discuss physiological mechanisms and the pathophysiological processes involved in different types of hypersensitivity reactions. 2. Identify the four main types of hypersensitivity (Type I, II, III, and IV) and their clinical manifestations. 3. Implement diagnostic strategies for hypersensitivity and allergies. Develope management plans for individuals with hypersensitivity and allergic conditions.						
Unit 1 زود حساسیت والرجی کا عمومی جائزہ Zūd Hassāsiyat wa Allergy ka 'Umūmī Jāyi'zā (Overview of Hypersensitivity & Allergy) 3.1.1 زود حساسی ردعمل اور الرجیز (Hypersensitivity reactions and allergies) 3.1.2 عام الرجک مادے اور ان کے محرکات (Common allergens and their triggers) 3.1.3 زود حساسیت و الرجی میں مزاجی شمولیت (Temperamental susceptibility to allergies and hypersensitivity) **References:** 6,8,9						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO1,CO3,CO4	Define and describe the concepts of hypersensitivity reactions and allergies, and differentiate between the two terms in an immunological context	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO4,CO6,CO7	Demonstrate and categorize common allergens and their triggers in allergic reactions.	2	Practical3.1	PSY-GUD	Shows-how	D,D-M,DIS,KL

CO1,CO3,CO4,CO6,CO7	Discuss how individual temperament (Hot, Cold, Moist, Dry) influences susceptibility to allergies and hypersensitivity.	2	Experiential-Learning3.1	CE	Knows-how	BS,DIS,LS,PER

Unit 2 زودحساسیتقسماول Zūd Hassāsiyat Qism Awwal (Type 1 Hypersensitivity)

3.2.1 زود حساسیت قسم اول :میکانیہ اور علامات و نشانیاں (Type I hypersensitivity: Mechanism and Clinical Features)

3.2.2 زود حساسیت قسم اول کے ردعمل کی روک تھام کے طریقے (strategies to prevent Type 1 hypersensitivity reactions)

References: 8,9

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO6	Describe Type I hypersensitivity with clinical features.	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO4,CO6	Demonstrate the mechanism of type 1 hypersenstivity	2	Practical3.2	PSY-MEC	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO4,CO6	Discuss strategies to prevent Type 1 hypersensitivity reactions.	2	Experiential-Learning3.2	CS	Knows-how	BS,DIS,LS,PL,PER

Unit 3 زودحساسیتقسمدوم Zūd Hassāsiyat Qism Dom (Type 2 Hypersensitivity)

3.3.1 زود حساسیت قسم دوم :میکانیہ اور علامات و نشانیاں (Type II hypersensitivity: Mechanism and Clinical Features)

3.3.2 زود حساسیت قسم دوم سے منسلک امراض (Conditions associated with Type-2 hypersensitivity)

References: 8,9

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Discuss the concept of Type II hypersensitivity with clinical features	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC

CO1,CO3,CO4,CO6	Demonstrate the mechanism of Type- 2 hypersenstivity	2	Practical3.3	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO4,CO6	Discuss diseases and conditions associated with Type-2 hypersensitivity	3	Experiential-Learning3.3	CE	Knows-how	BS,DIS,LS

Unit 4 زود حساسیت قسم سوم Zūd Hassāsiyat Qism Som (Type 3 Hypersensitivity)

3.4.1 زود حساسیت قسم سوم :میکانیہ اور علامات و نشانیاں (Type III hypersensitivity: Mechanism and Clinical Features)

3.4.2 زود حساسیت قسم سوم سے منسلک امراض (Conditions associated with Type-3 hypersensitivity)

References: 8,9

3A	3B	3C	3D	3E	3F	3G
CO3,CO4	Describe the concept of Type III hypersensitivity differentiate it from other types of hypersensitivity reactions.	1	Lecture	CK	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO4,CO6	Demonstrate the mechanism of type 3 hypersenstivity.	2	Practical3.4	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO4,CO6	Discuss diseases and conditions associated with Type 3 hypersensitivity	3	Experiential-Learning3.4	CE	Knows-how	BS,DIS,LS,PER

Unit 5 زود حساسیت قسم چہارم Zuūd Hassāsiyat Qism Chahārum (Type 4 Hypersensitivity)

3.5.1 زود حساسیت قسم چہارم :میکانیہ اور علامات و نشانیاں (Type IV hypersensitivity: Mechanism and Clinical Features)

3.5.2 زود حساسیت قسم چہارم سے منسلک امراض (Conditions associated with Type-4 hypersensitivity)

3.5.3 زود حساسیت قسم چہارم کے علاج کی حکمت عملیاں (Treatment strategies for type 4 hypersensitivity)

References: 1,8,9

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Describe type IV hypersensitivity with its clinical implication	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO4,CO6	Demonstrate the mechanism of type 4 hypersenstivity	2	Practical3.5	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO1,CO3,CO4,CO6	Discuss diseases and conditions associated with Type IV hypersensitivity,	2	Experiential-Learning3.5	CE	Knows-how	BS,CBL,DIS,LS,PER
CO1,CO3,CO4,CO6	Discuss treatment strategies for type 4 hypersensitivity.	1	Experiential-Learning3.6	CE	Knows-how	BS,DIS,LS,PER

Practical Training Activity

Practical 3.1 : Common allergens

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate and categorize common allergens and their triggers in allergic reactions with the help of methods such as models, charts, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Presentations, Viva, LAQs, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 3.2 : Mechanism of Type-1 Hypersenstivity

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate the mechanism of Type-1 Hypersenstivity with the help of methods such as models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Presentations, Viva,Quiz, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 3.3 : Mechanism of Type-2 hypersenstivity

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate the mechanism of Type-2 hypersenstivity with the help of methods such as models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Presentations, Viva, Quiz, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 3.4 : Mechanism of Type-3 Hypersenstivity

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate the mechanism of Type-3 Hypersenstivity with the help of methods such as models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Presentations, Quiz, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 3.5 : Mechanism of type-4 Hypersenstivity

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate the Mechanism of type-4 Hypersenstivity with the help of methods such as models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Presentations, LAQs, Viva or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Experiential learning Activity

Experiential-Learning 3.1 : Effect of temperament on hypersenstivity and allergy

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 3.2 : Prevention of Type-1 hypersentivity reaction

Total Learning Hours: 2 Hours

Step 1: Literature Search & Review (Duration: 45 Minutes) - The student will be assigned the topic "Prevention of Type-1 hypersentivity reaction" for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Experiential-Learning 3.3 : Type-2 Hypersenstivity disorders

Total Learning Hours: 3 Hours

Step 1: Research and Preparation (Duration: 75 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 75 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 3.4 : Type-3 Hypersenstivity disorders

Total Learning Hours: 3 Hours

Step 1: Literature Search & Review (Duration: 75 Minutes) - The student will be assigned the topic "Type-3 Hypersenstivity disorders" for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 75 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Experiential-Learning 3.5 : Type-4 Hypersenstivity disorders

Total Learning Hours: 2 Hours

Step 1: Literature Search & Review (Duration: 45 Minutes) - The student will be assigned the topic " Type-4 Hypersenstivity disorders" for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Experiential-Learning 3.6 : Type- 4 Hypersenstivity management

Total Learning Hours: 1 Hour

Step 1: Literature Search & Review (Duration: 15 Minutes) - The student will be assigned the topic "Type- 4 Hypersenstivity management" for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 30 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 15 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Modular Assessment	
Assessment method	**Hour**
Instructions – Conduct a structured modular assessment. Assessment will be for 25 marks for this module. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Presentation – 25 Marks Students will deliver a Presentation on a topic related to hypersensitivity and allergies, covering their definitions, types, mechanisms, and treatment approaches. • Content and Understanding (5 Marks) • Clarity and Organization (5 Marks) • Use of Visual Aids (5 Marks) • Delivery and Communication (5 Marks) • Engagement and Response to Questions (5 Marks) Or Any practical in converted form can be taken for assessment. (10) and Any experiential, such as portfolios/reflections/presentations can be taken as an assessment. (15)	2

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical/experiential) learning session, the students should be able to)	3C Notional Learning Hours	3D Lecture/ Practical/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/ Shows how/ Knows how/ Know)	3G Teaching Learning Methods
Module 4 : جلد کی شعاعی حیاتیات Jild ki Shu'āyi Hayātiyāt (Photobiology of skin)						
Module Learning Objectives **(At the end of the module, the students should be able to)** 1 Describe Ultraviolet and visible radiation- source and absorption in the Skin, photochemical reactions and photosensitization. 2 Discuss the biological effects of ultraviolet (UV) radiation on skin cells, including DNA damage, skin aging, and cancer development. 3 Develop strategies to educate others on the importance of photo protection and safe sun practices to promote skin health.						
Unit 1 الٹراوائلٹ اور مرئی اشعاع–ذرائع و جلدی انجذاب Ultraviolet aur Mara'i Ish'ā- Zarā'i' wa Jildi Injizāb (Ultraviolet and visible radiation- source and absorption in the Skin) 4.1.1 برقی مقناطیسی طیف (Electromagnetic spectrum) 4.1.2 الٹرا وائلٹ شعاعوں کی اقسام، ذرائع اور خصوصیات (Ultraviolet rays: types, sources and characteristics) 4.1.3 سورج سے حفاظت کی اہمیت اور الٹرا وائلٹ شعاعوں سے جلد کا تحفظ (Importance of Sun Safety and skin protection against ultraviolet radiation) **References:** 1,2						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO1,CO3,CO6	Describe the electromagnetic spectrum, distinguishing between UV radiation and visible light.	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO4,CO6	Discuss the characteristics of UVA and UVB rays	1	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO4,CO6	Demonstrate the primary sources of UV radiation; discuss their relevance to skin exposure.	2	Practical4.1	PSY-GUD	Shows-how	D,D-M,DIS,KL

CO1,CO3,CO6	Demonstrate how the skin absorbs UV radiation and the biological significance of the process in terms of vitamin D synthesis and potential skin damage.	1	Practical4.2	PSY-GUD	Shows-how	D,D-M,KL,L_VC
CO1,CO3,CO4,CO6	Discuss the importance of Sun Safety and skin protection against UV radiation.	2	Experiential-Learning4.1	CE	Knows-how	BS,DIS,LS,PER
CO1,CO3,CO6	Educate the society for minimizing harmful UV exposure	2	Experiential-Learning4.2	CE	Knows-how	BS,DIS,LS,PER

Unit 2 جلد پر ظاہر ہونے والے فوٹو کیمیکل ردعمل Jild par Zāhir hone wāle Photochemical Radd-i ‘Amal (Photochemical reactions leading to skin responses)

4.2.1 الٹرا وائلٹ روشنی کے جلد پر اثرات اور فوٹو کیمیکل نقصان (Effects of ultraviolet light on skin and photochemical damage)

4.2.2 مرئی اور انفرا ریڈ شعاعوں کے خلاف جلدی ردِ عمل (Cutaneous responses to visible and infrared radiation)

4.2.3 الٹرا وائلٹ روشنی اور جلدی مدافعتی نظام (Ultraviolet light and the cutaneous immune system)

References: 1,2,14

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Explain the short term and long term effects of ultraviolet light.	2	Lecture	CAN	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO4	Demonstrate the mechanism of interaction of chromospheres in the skin with UV and visible radiation to initiate photochemical reactions	2	Practical4.3	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO2,CO3	Discuss the cutaneous responses to visible and infra red radiation.	1	Practical4.4	PSY-MEC	Shows-how	BS,D,D-M,DIS
CO1,CO3,CO4,CO6	Discuss the effect of UV light on cutaneous immune system.	2	Experiential-Learning4.3	CE	Knows-how	BS,DIS,LS,PER
CO1,CO3,CO4,CO6	Discuss the skin’s natural defence mechanisms against photochemical damage.	2	Experiential-Learning4.4	CE	Knows-how	BS,DIS,LS,PL,PER

Unit 3 شعاعی حساسیت Shu‘āyi Hassāsiyat (Photosensitization)

4.3.1 شعاعی حساسیت :تصور، میکانیہ اور ردعمل (Photosensitization: Concept, Mechanism and response)

4.3.2 شعاعی حساسیت کو بڑھانے والے عوامل اور اس کے سد باب کے طریقے (Increasing Factors of photosensitization and its prevention strategies)

References: 1,2

3A	3B	3C	3D	3E	3F	3G
CO1,CO6	Describe the concept of photosensitization along with acute responses to UV radiation.	1	Lecture	CK	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3,CO4,CO6	Demonstrate the mechanism of UV-B induced inflammation and inflammatory mediators	2	Practical4.5	PSY-GUD	Shows-how	D,D-M,KL,L_VC
CO1,CO3,CO4,CO6	Demonstrate various substances that can cause photosensitization.	2	Practical4.6	PSY-GUD	Shows-how	D,D-M,KL
CO1,CO2,CO3,CO4,CO6	Discuss the factors that may increase susceptibility to photosensitization and the symptoms and signs associated with photosensitization.	3	Experiential-Learning4.5	CE	Knows-how	BS,DIS,LS,PER
CO1,CO3,CO4,CO6,CO7	Discuss strategies to reduce the risk of photosensitization.	2	Experiential-Learning4.6	CE	Knows-how	BS,DIS,LS,PL,PER

Practical Training Activity

Practical 4.1 : UV rays- sources and benefits

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate the primary sources of UV radiatio with the help of methods such as models, charts,videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Presentations, Quiz, Viva, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 4.2 : UV rays and VIt D synthesis
Total Learning Hours: 1 Hour Step 1: Introduction & Demonstration (30 Minutes) - The teacher will demonstrate how the skin absorbs UV radiation and the biological significance of the process in terms of vitamin D synthesis and potential skin damage with the help of methods such as models, charts, videos, or presentations will be used to ensure effective learning. Step 2: Group Discussion (15 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic. Step 3: Assessment & Feedback (15 Minutes) -Students' understanding will be assessed through Presentations, Quiz, Vivaor direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.
Practical 4.3 : Mechanism of photochemical reactions.
Total Learning Hours: 2 Hours Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate Mechanism of photochemical reactions with the help of methods such as models, videos, or presentations will be used to ensure effective learning. Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic. Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Presentations, Quiz, Viva, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.
Practical 4.4 : Cutaneous response to visible and infra red radiation

Total Learning Hours: 1 Hour

Step 1: Introduction & Demonstration (30 Minutes) - The teacher will demonstrate Cutaneous response to visible and infra red radiation with the help of charts, models, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (15 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (15 Minutes) -Students' understanding will be assessed through Presentations, Quiz, Viva or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 4.5 : UV-B induced inflammation mechanism

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate UV-B induced inflammation mechanism with the help of methods such as models, charts, videos, or presentations will be used to ensure effective learning.

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Quiz, Viva, or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Practical 4.6 : Substances causing Photosensitization

Total Learning Hours: 2 Hours

Step 1: Introduction & Demonstration (45 Minutes) - The teacher will demonstrate various sources of photosensitization using charts and models.

The teacher will guide the discussion, emphasizing:

- Common Photosensitizing Agents:
- Mechanism of Photosensitization
- Risk Factors and Prevention

Step 2: Group Discussion (45 Minutes) - Students will repeat the practical after the teacher and record their findings in record books. The teacher will facilitate discussions, clarify doubts, and emphasize key concepts related to the topic.

Step 3: Assessment & Feedback (30 Minutes) -Students' understanding will be assessed through Q&A Session, Peer Feedback, viva or direct questioning. Constructive feedback will be provided to enhance their clinical reasoning and application of knowledge.

Experiential learning Activity

Experiential-Learning 4.1 : Sun safety against UV rays

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 4.2 : UV rays protection stratigies.

Total Learning Hours: 2 Hours

Step 1: Literature Search & Review (Duration: 45 Minutes) - The student will be assigned the topic "UV rays protection stratigies." for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 45 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Experiential-Learning 4.3 : UV light and cutaneous immune system

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 4.4 : Photochemical damage and skin,s natural defence.

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Experiential-Learning 4.5 : Photosensitization - factors , sign and symptoms

Total Learning Hours: 3 Hours

Step 1: Literature Search & Review (Duration: 75 Minutes) - The student will be assigned the topic "Photosensitization - factors , sign and symptoms" for a seminar presentation. They will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather the most up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Presentation (Duration: 75 Minutes) - After compiling and structuring the gathered information, the student will create a PowerPoint (PPT) presentation to effectively present their research. The presentation will be delivered to teachers and fellow department students, fostering academic discussion and knowledge exchange.

Step 3: Discussion & Assessment (Duration: 30 Minutes) - Following the presentation, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. Additionally, the teacher will assess the student's performance based on research depth, presentation skills, clarity of communication, and overall effectiveness.

Experiential-Learning 4.6 : Strategies to reduce photosensitization

Total Learning Hours: 2 Hours

Step 1: Research and Preparation (Duration: 45 Minutes)
The teacher will divide the students into groups of 2-3 and assign each group a specific topic for discussion. Students will conduct thorough research using library resources, relevant online academic materials, and other credible references to gather up-to-date and comprehensive information on the subject.

Step 2: Content Organization & Group Discussion (Duration: 45 Minutes)
After compiling and structuring the gathered information, students will organize the content and engage in a discussion within their groups to ensure a clear understanding and effective presentation of their findings.

Step 3: Presentation & Interactive Discussion (Duration: 30 Minutes)
Each group will present their findings to the class. Following the presentations, an interactive discussion session will be conducted to address queries, clarify key concepts, and deepen understanding. The teacher will assess the students' performance based on the depth of their research, presentation skills, clarity of communication, and overall effectiveness in conveying their ideas.

Modular Assessment

Assessment method	**Hour**
Instructions – Conduct a structured modular assessment. Assessment will be for 25 marks for this module. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Structured Long Answer Question (LAQ)– 25 Marks Students will answer a Structured Long Answer Question (LAQ) designed to assess their comprehensive understanding of Photobiology of Skin. or Peer Teaching (25 Marks) - Students will engage in a Peer Teaching session on Photobiology of Skin presenting key concepts to their peers to demonstrate their understanding and teaching abilities. Assessment will be based on the following criteria: • Content Mastery (5 Marks) • Presentation Skills (5 Marks) • Engagement and Interaction (5 Marks) • Application of Knowledge (5 Marks) • Critical Thinking and Reasoning (5 Marks) Or Any practical in converted form can be taken for assessment. (10) and Any experiential, such as portfolios/reflections/presentations can be taken as an assessment. (15)	2

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical/experiential) learning session, the students should be able to)	3C Notional Learning Hours	3D Lecture/ Practical/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/ Shows how/ Knows how/ Know)	3G Teaching Learning Methods
Module 5 : اندمالِ زخمIndimāl-i Zakhm (Wound healing)						
Module Learning Objectives **(At the end of the module, the students should be able to)** 1 Describe the mechanism of cutaneous wound healing, regeneration and repair 2 Demonstrate different phases of cutaneous wound healing 3 Identify factors influencing the process of wound healing						
Unit 1 قرحاتِ جلد کا میکانیہQarhāt-i Jild ka Mikāniyyā (Mechanism of cutaneous wound healing) 5.1.1 اندمالِ زخم کی منافع الاعضائی و ماہیت المرضی حیثیت (Physiology and pathophysiology of wound healing) 5.1.2 جانچ و پیمائش (Assessment and measurement) **References:** 11						
3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Discuss physiology and pathophysiology of wound healing	1	Lecture	CE	Knows-how	DIS,L,L&GD,L&PPT ,L_VC
CO3,CO4	Demonstrate techniques for wound assessment and measurement.	2	Practical5.1	PSY-GUD	Shows-how	D,D-M,DIS,KL
CO3,CO4	Demonstrate the assessment and measurement of cutaneous wound	3	Experiential-Learning5.1	PSY-ORG	Does	CBL,DIS

Unit 2 قرحات کی تخلیق نو و مرمت Qarhāt ki Takhlīq-i Nav wa Marammat (Wound regeneration and repair)

5.2.1 تخلیق و مرمت (Regeneration and repair)

5.2.2 زخم کی تخلیق نو کے اختراعی طریقے (Innovative approaches in wound regeneration)

References: 1

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Describe the difference in skin wound regeneration and repair	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3	Discuss the innovative approaches in wound regeneration	2	Practical5.2	PSY-GUD	Shows-how	D,DIS,L_VC
CO3,CO4	Evaluate innovative approaches in wound regeneration	3	Experiential-Learning5.2	PSY-ORG	Knows-how	BS,CBL,DIS,LS

Unit 3 ابتدائی و ثانوی طریقہ اندمال Ibtidāyi wa Sānwi Tariqa'-i Indimāl (Healing by primary and secondary intention)

5.3.1 ابتدائی طریقہ اندمال (Healing by primary intention)

5.3.2 ثانوی طریقہ اندمال (Healing by secondary intention)

References: 1

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Describe healing by primary intention and secondary intention	1	Lecture	CE	Shows-how	L,L&GD,L&PPT ,L_VC
CO1,CO2	Demonstrate different methods of healing such as primary, secondary and tertiary healing	2	Practical5.3	PSY-GUD	Shows-how	D,D-M,DIS,L_VC

CO6,CO7	Discuss and present the published clinical trial on wound healing	3	Experiential-Learning5.3	PSY-ORG	Does	BS,JC,LS,PER

Unit 4 اندمال کے مراحلIndimāl ke Marāhil (Phases of wound healing)

5.4.1 اندمال زخم کا منافع الاعضائی طریقہ کار (Physiologic processes involved in wound healing)

5.4.2 اندمال زخم کے خلیاتی و مالیکولر مراحل (Cellular and molecular events of wound healing)

References: 11,17

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Discuss physiologic processes involved in the different phases of wound healing.	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3	Demonstrate the key cellular and molecular events of each phase of wound healing	2	Practical5.4	PSY-GUD	Shows-how	BS,D,D-M,DIS,PBL
CO3,CO4	Evaluate the importance of hemostasis in the process of wound healing	2	Experiential-Learning5.4	PSY-ORG	Knows-how	D,D-M,DIS

Unit 5 اندمال کو متاثر کرنے والے عواملIndimāl ko Muta'ssir karne wale Awāmil (Factors affecting wound healing)

5.5.1 زخم بھرنے کے عمل فروغ دینے والے عوامل (Factors Promoting the process of wound healing)

5.5.2 زخم بھرنے کے عمل کو سست کرنے والے عوامل (Factors slowing the process of wound healing)

References: 14

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Discuss the factors influencing the process of wound healing	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO2,CO4	Demonstrate local and systemic factors affecting the process of wound healing with complications	2	Practical5.5	PSY-GUD	Shows-how	CBL,D,D-BED,D-M,DIS,KL,PER

CO1,CO3	Assess the role of psychological and social factors in wound healing	2	Experiential-Learning5.5	PSY-ORG	Knows-how	BS,DIS,PER

Practical Training Activity

Practical 5.1 : Techniques for wound assessment

Total Learning Hours (2 hours)

The teacher will demonstrate the techniques for evaluating wound size and depth and measuring wound dimensions (length, width, depth) on real patients or with the help of audio-video aids or case presentations (1 hour).

Post-activity discussion (30 minutes)

The student will discuss to have a comprehensive understanding of the different techniques for evaluating the wound and can perform wound assessment. Each student will repeat the practical and record the findings in the record book.

Assessment and Feedback (30 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasonings.

Practical 5.2 : Innovative approaches for wound regeneration

Total Learning Hours (2 hours)

The teacher will demonstrate innovative approaches in wound regeneration involving cutting-edge technologies and methodologies that enhance healing processes and improve patient outcomes in audio-video aids/case presentations (1 hour).

Post-activity discussion (30 minutes)

The student will discuss the use of non-invasive technologies for wound healing assessment and note down the approaches for enhancing the wound healing process and regeneration in their record books. Each student will take a case to repeat the practical and record the findings in the record book.

Assessment and Feedback (30 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observation and reasonings.

Practical 5.3 : Methods of wound healing

Total Learning Hours (2 hours)

The teacher will demonstrate the different methods of healing such as primary, secondary and tertiary healing to understand the healing process with the help of audio-video aids/case presentations (1 hour).

Post-activity discussion (30 minutes)

The teacher will initiate a group discussion on methods of wound healing. The student will actively participate in the discussion for a comprehensive understanding of the various healing methods (30 minutes).

After that, each student will take a case and record the findings in the record book to comprehend the methods of healing (15 minutes).

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback for their observations and reasonings.

Practical 5.4 : Cellular and molecular events of wound healing

Total Learning Hours (2 hours)

The teacher will demonstrate and discuss the key cellular and molecular events of each phase of wound healing including the roles of platelets, inflammatory cells, fibroblasts, and growth factors with the help of audio-video aids or case presentation (1 hour).

Post-activity discussion (30 minutes)

The student will take part in the discussion to understand the key cellular and molecular events in each phase of wound healing and record them in the practical notebook.

Assessment and Feedback (30 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observation and reasonings.

Practical 5.5 : Factors affecting wound healing

Total Learning Hours (2 hours)

The teacher will demonstrate the impact of local factors such as wound size, location, infection, and moisture levels on the healing process and systemic factors like age, nutrition, comorbidities (e.g., diabetes, vascular disease) and hormonal changes affecting the process of wound healing with complications with the help of audio-video aids/case presentation (1 hour).

Post-activity discussion (30 minutes)

The teacher will discuss cases to explain the healing process and the role of local and systemic factors in the healing process.

Assessment and Feedback (30 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Experiential learning Activity

Experiential-Learning 5.1 : Cutaneous wound assessment

Total Activity Hours (3 hours)

Step 1: Demonstration of cutaneous wound assessment

The students will actively perform the assessment of wound size, depth and measurement of wound dimensions (length, width, depth)on real patients/audio-video aids/case presentation. The student will record the process of wound assessment in the record notebook.

The demonstration session will be divided into 3 sessions (30 minutes x 3 = 90 minutes).

Step 2 Interactive discussion (15 minutes x 3 = 45 minutes)

The teacher will initiate a discussion session post-demonstration so that cutaneous wound assessment can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 3 = 45 minutes)

Summarizing the important points and takeaways on cutaneous wound assessment

Experiential-Learning 5.2 : Wound regeneration

Total Activity Hours (3 hours)

Step 1: Presentation of viewpoints

The students will present innovative approaches to wound regeneration in brainstorming sessions, seminars or peer group discussions.

The presentation session will be divided into 3 sessions (30 minutes x 3 = 90 minutes).

Step 2 Interactive discussion (15 minutes x 3 = 45 minutes)

The teacher will initiate a discussion session post-presentation so that innovative approaches in wound regeneration can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 3 = 45 minutes)

Summarizing the important points and takeaways on innovative approaches in wound regeneration.

Experiential-Learning 5.3 : Journal Club

Total Activity Hours (3 hours)

Step 1: Presentation of a critical appraisal of the published article

The students will collect the published clinical studies on cutaneous wound healing through the online databases search individually and present a critical appraisal of the articles in the journal club individually.

The Journal club will be divided into 4 sessions depending upon the number of students so that each student will get the opportunity to present in the journal club (15 minutes x 4 = 1 hour).

Step 2 Interactive discussion (15 minutes x 4 = 1 hour)

The teacher will initiate a discussion session post-presentation which will provide an opportunity to put his/her view on the skills of critical appraisal of the published literature.

Post-activity wrap-up (15 minutes x 4 = 1 hour)

Summarising the important points and takeaways on the skills of critical appraisal of the published literature.

Experiential-Learning 5.4 : Importance of hemostasis in wound healing

Total Activity Hours (2 hours)

Step1: presentation of viewpoint (45 minutes)

The students will present their viewpoints on the importance of hemostasis in the process of wound healing to evaluate the significant role of hemostasis in a brainstorming session, seminar or group discussion.

Step 2 Interactive discussion (45 minutes)

The student will take cases related to wound healing and discuss to understand the role of wound healing.

Post-activity wrap-up (30 minutes)

Summarising the important points and takeaways on the Importance of hemostasis in wound healing

Experiential-Learning 5.5 : Wound healing factors

Total Activity Hours (2 hours)

Step1: presentation of viewpoint (1 hour)

The students will present their viewpoints on the effects of psychological stress, social support, and socioeconomic status on the wound healing process in a brainstorming session or seminar or group discussion.

Step 2 Interactive discussion (30 minutes)

The brainstorming session will provide an opportunity to put his/her view on the current understanding of the role of psychological and socioeconomic factors on wound healing.

Post-activity wrap-up (30 minutes)

Summarising the important points and takeaways on the role of psychological and socioeconomic factors on wound healing..

Modular Assessment

Assessment method	Hour
Instructions – Conduct a structured modular assessment. Assessment will be for 25 marks for this module. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. Observed Structured Practical Examination (OSPE) (25 Marks) • Identification of Type of Wound (e.g., clean, contaminated, infected, etc.)5 Marks • Classification of Wound Healing Type (e.g., primary, secondary, tertiary intention)5 Marks • Recognition of Healing Stages (inflammatory, proliferative, remodeling)5 Marks • Justification of Assessment (based on visual clues, clinical reasoning)5 Marks • Communication Skills (clear explanation of findings and healing process)5 Marks or Any practical in converted form can be taken for assessment (15) and any experiential such as portfolios/reflections/presentations can be taken as an assessment (10)	2

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical/experiential) learning session, the students should be able to)	3C Notional Learning Hours	3D Lecture/ Practical/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/ Shows how/ Knows how/ Know)	3G Teaching Learning Methods
Module 6 : امراض جلد کے مریضوں تک طبی و تشخیصی رسائی Amrāz-i Jild ke Marīzon tak Tibbi wa Tashkhīsī Rasāy'i (Approach to the patient with skin diseases)						
Module Learning Objectives **(At the end of the module, the students should be able to)** 1 Describe primary, secondary and specific skin lesions 2 Demonstrate compassionate attitude, empathy and humane approach towards patients and their families 3 Adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health personnel. 4. Apply art of taking medical history, steps of physical examination and clinical scoring system to measure severity of diseases						
Unit 1 معالجات جلد میں اخلاقی پہلو Moālajāt-i Jild mein Akhlāqī Pahlū (Ethical Consideration in Dermatological Practice) 6.1.1 معالجات جلد میں طبی اخلاقیات (Ethics in the clinical practice of dermatology) 6.1.2 معالجات جلد کی پریکٹیس میں عصری حیاتیاتی اخلاقی تنازعات (Bioethical conflicts in current dermatology practice) 6.1.3 ٹیلی ڈرمیٹولوجو کی کے اخلاقی مسائل (Ethical issues in teledermatology) **References:** 12,13						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO4,CO6	Discuss bioethical conflicts in current dermatology practice	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC

CO4,CO6	Describe ethical and legal implications of use of photography in dermatology	1	Lecture	CE	Knows-how	DIS,L,L&GD,L&PPT ,L_VC
CO4,CO5	Demonstrate ethics in the clinical practice of dermatology using GCP guidelines	1	Practical6.1	PSY-GUD	Shows-how	D,D-BED,DIS
CO5,CO6	Discuss violations of Good Clinical Practice guidelines in published clinical studies in dermatology	2	Experiential-Learning6.1	PSY-ORG	Knows-how	BS,CBL,D,DIS
CO4,CO5	Discuss ethical issues in teledermatology	2	Experiential-Learning6.2	PSY-ORG	Knows-how	BS,D,D-BED,DIS

Unit 2 روداد طبی Rūdād-i Tibbi (Medical History taking)

6.2.1 روداد طبی کا آرٹ (Art of History taking)

6.2.2 معالجات جلد میں روداد طبی کی اہمیت (Importance of history taking in dermatology)

References: 1

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Discuss the art and science of medical history taking in dermatology	2	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3	Demonstrate art of medical history taking in real patients	4	Practical6.2	PSY-GUD	Shows-how	CBL,D,D-BED,DIS,PBL
CO1,CO3	Demonstrate the ability to obtain a comprehensive dermatological history	3	Experiential-Learning6.3	PSY-GUD	Does	CBL,D,D-BED,DIS
CO1,CO2	Discuss medical history recording in real patients of skin diseases	5	Experiential-Learning6.4	PSY-ORG	Knows-how	CBL,D,DIS,KL,PAL

Unit 3 جلد کا جسمانی معائنہ Jild ka Jismānī Mu‘ā’ina (Physical examination of Skin)

6.3.1 جلد کے جسمانی معائنے کا طریقہ کار (Methods of physical examination in dermatology)

6.3.2 معالجات جلد کی مختلف سریریائی نشانیاں (Different clinical signs in dermatology)

References: 14

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Evaluate methods of physical examination in dermatology	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3	Describe different clinical signs in dermatology	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO3,CO5	Demonstrate a step-by-step approach to physical examination of skin	5	Practical6.3	PSY-GUD	Shows-how	CBL,D
CO3,CO5	Demonstrate physical examination of the skin in the patient	5	Experiential-Learning6.5	PSY-ORG	Does	CBL,D,DIS,PER

Unit 4 اصابات جلدIsābāt-i Jild skin lesions

6.4.1 ابتدائی اصابات جلد (Primary Skin Lesions)

6.4.2 ثانوی اصابات جلد (Secondary skin Lesions)

6.4.3 اصابات جلد مخصوصہ (Specific Skin Lesions)

References: 7,17

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Discuss different primary, secondary and specific skin lesions	2	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO2,CO3,CO4	Demonstrate the difference among primary, secondary and specific skin lesions	5	Practical6.4	PSY-GUD	Shows-how	D,D-BED,L_VC,PBL

CO2,CO3,CO4	Demonstrate primary, secondary and specific skin lesions	5	Experiential-Learning6.6	PSY-ORG	Does	CBL,D,D-BED,DIS,KL

Unit 5 امراض جلد میں مستعمل پیمائش کے عام میزان ومقیاس Amrāz-i Jild mein Musta'mal Payma'ish ke 'Ām Mīzān wa Miqyās (Common assessment scales and clinical scoring system)

6.5.1 معالجات جلد کے عام تشخیصی پیمانے (Common assessment scales in dermatology)

6.5.2 معالجات جلد میں مستعمل طبی اسکورنگ سسٹمز (Clinical scoring systems in dermatology)

References: 1

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Discuss common assessment scales in dermatology	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO2	Describe clinical scoring systems in dermatology	1	Lecture	CE	Knows-how	DIS,L,L&GD,L&PPT ,L_VC
CO1,CO3	Demonstrate clinical scoring system in melasma, acne vulgaris, psoriasis and vitiligo	5	Practical6.5	PSY-GUD	Shows-how	CBL,D,D-BED,DIS,KL,PBL
CO1,CO3	Conduct scoring of the severity of psoriasis using the psoriasis area severity index (PASI)	1	Experiential-Learning6.7	PSY-ORG	Does	CBL,D,DIS,PBL
CO1,CO3	Assess the severity of vitiligo using the vitiligo area severity index (VASI)	1	Experiential-Learning6.8	PSY-ORG	Does	CBL,D,DIS,PBL
CO1,CO3	Assess the severity of Melasma using the melasma area severity index (MASI)	1	Experiential-Learning6.9	PSY-ORG	Does	CBL,D,D-M,DIS,PBL
CO1,CO3	Assess the quality of life of the patients with skin diseases using the dermatology life quality index (DLQI)	1	Experiential-Learning6.10	PSY-ORG	Does	CBL,DIS,PBL

Practical Training Activity

Practical 6.1 : Ethics in clinical practice of dermatology

Total Learning Hours (1 hour)

The teacher will demonstrate the potential concern of ethics in clinical practice and research. The teacher will cite examples of issues of ethics violations using a checklist of GCP guidelines in clinical research (30 minutes).

Post-activity discussion (15 minutes)

The teacher will discuss cases to explain the ethics in the clinical practice of dermatology.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 6.2 : Medical history taking

Total Learning Hours (4 hours)

The teacher will demonstrate the art of medical history taking and how to document the findings in case record form in outpatient and inpatient departments (I hour). The art of medical history taking involves asking the right questions, establishing a connection with the patient, showing empathy, and ensuring that the patient feels comfortable enough to share crucial information. The teacher will also demonstrate the importance of history taking in physical examination of the skin (1 hour). The teacher will demonstrate at least two cases of different dermatological clinical conditions to provide a good understanding of the role of the art of medical history taking in diagnosis (1 hour).

Post-activity discussion (30 minutes)

The teacher will discuss cases to explain the medical history taking skills.

Assessment and Feedback (30 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 6.3 : A clinical approach to skin examination

Total Learning Hours (5 hours)

The teacher will demonstrate the steps of physical examination of the skin in real patients of dermatology in the outpatient and inpatient departments (1 hour). The teachers will demonstrate the physical examination of at least 5 cases of different dermatological conditions to share practical knowledge with the students (2 hours)

The teacher will also demonstrate the use of magnifying glass, diascopy and dermatoscope in the clinical examination of skin lesions (1 hour).

Post-activity discussion (30 minutes)

The teacher will discuss cases to explain the clinical approach to skin examination.

Assessment and Feedback (30 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 6.4 : Identification of primary, secondary and specific skin lesions

Total Learning Hours (5 hours)

The teacher will demonstrate the differentiating points to identify primary, secondary and specific lesions during the physical examination of the skin of real patients in outpatient and inpatient departments (1 hour).

The teacher will demonstrate the use of a magnifying glass, diascopy and dermatoscope for clinical examination of skin lesions in different diseases (2 hours). The students will learn and practice how to use the magnifying glass, diascopy and dermatoscope in clinical practice (1 hour). The students will record their findings in notebooks.

Post-activity discussion (30 minutes)

The teacher will discuss cases to explain the Identification of primary, secondary and specific skin lesions.

Assessment and Feedback (30 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 6.5 : Clinical scoring system in dermatology

Total Learning Hours (5 hours)

The teacher will demonstrate the steps to measure the severity of melasma (30 minutes), acne vulgaris (30 minutes), psoriasis (30 minutes), vitiligo (30 minutes) and quality of life (30 minutes) on real patients using prevalent clinical scoring systems in outpatient and inpatient departments.

The student will repeat and practice the clinical scoring system in patients with melasma (15 minutes), acne vulgaris(15 minutes), psoriasis (15 minutes), vitiligo (15 minutes) and dermatology quality of life (15 minutes) and record the scoring of the severity of the clinical conditions in record books.

Post-activity discussion (45 minutes)

The teacher will discuss cases to explain the clinical scoring system in dermatology.

Assessment and Feedback (30 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Experiential learning Activity

Experiential-Learning 6.1 : Ethical violations in clinical research

Total Activity Hours (2 hours)

Step 1: Presentation of critical appraisal skills (1 hour).

The students will identify the published clinical studies in dermatology individually which have issues of ethics violations and critically evaluate the article with a checklist of GCP guidelines while assessing study design, ethics, data integrity and report in the journal club.

Step 2 Interactive discussion (30 minutes)

The teacher will initiate a post-presentation discussion which will provide an opportunity to discuss the critical appraisal skills.

Post-activity wrap-up (30 minutes)

Summarizing the important points and takeaways on the ethical violations in clinical research.

Experiential-Learning 6.2 : Ethical issues in teledermatology

Total Activity Hours (2 hours)

Step1: presentation of viewpoint (1 hour)

The student will discuss ethical issues in teledermatology such as confidentiality, informed consent, and the handling of sensitive information, disparities in access to technology, patient autonomy, and the implications of remote diagnosis and treatment in group discussion/seminar.

Step 2 Interactive discussion (30 minutes)

The teacher will initiate a post-presentation discussion which will provide an opportunity to put his/her view on the current understanding of the ethical issues in teledermatology

Post-activity wrap-up (30 minutes)

Summarizing the important points and takeaways on the ethical issues in teledermatology.

Experiential-Learning 6.3 : The art of clinical history taking

Total Activity Hours (3 hours)

Step 1: Demonstration of the art of clinical history taking

The students will demonstrate the ability to obtain comprehensive medical history techniques, including effective questioning and active listening in group discussions and/or case presentation.

The students will teach art of clinical history taking to the undergraduate students in outpatient department and ward.

There should be three cases to be taken by each student **(30 minutes x 3 = 90 minutes)**.

Step 2 Interactive discussion (15 minutes x 3 = 45 minutes)

The teacher will initiate a discussion session post-demonstration so that The art of clinical history taking can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 3 = 45 minutes)

Summarizing the important points and takeaways on the art of clinical history taking.

Experiential-Learning 6.4 : Case history taking skills

Total Activity Hours (5 hours)

Step 1: Demonstration of case history taking skills.

The students will demonstrate proficiency in clinical history-taking in a variety of real patients in outpatient and inpatient departments and prepare filled-in case record forms.

There should be five cases to be taken by each student (30 minutes x 5 = 150 minutes).

Step 2 Interactive discussion (15 minutes x 5 = 75 minutes)

The teacher will initiate a discussion session post-examination so that case history taking skills can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 5 = 75 minutes)

Summarizing the important points and takeaways on the case history taking skills.

Experiential-Learning 6.5 : Physical examination of skin

Total Activity Hours (5 hours)

Step 1: Demonstration of physical examination of skin.

The student will conduct the systemic and local examination of skin in real patients independently. The student will review and correlate medical history, and clinical scenarios, to develop differential diagnoses and diagnose and justify the decisions based on evidence. The students will teach critical steps of physical examination of the skin to the undergraduate students in the outpatient department and ward.

There should be five cases to be taken by each student (30 minutes x 5 = 150 minutes).

Step 2 Interactive discussion (15 minutes x 5 = 75 minutes)

The teacher will initiate a discussion session post-examination so that the physical examination of the skin can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 5 = 75 minutes)

Summarizing the important points and takeaways on the physical examination of the skin.

Experiential-Learning 6.6 : Diagnosis of primary, secondary and specific skin lesions

Total Activity Hours (5 hours)

Step 1: Clinical examination of primary, secondary and specific skin lesions.

The student will conduct physical examinations of real patients focussing on local examination of skin with emphasis on recognising primary, secondary and specific skin lesions in outpatients and inpatient departments.

There should be five cases to be taken by each student (30 minutes x 5 = 150 minutes).

Step 2 Interactive discussion (15 minutes x 5 = 75 minutes)

The teacher will initiate a discussion session post-examination so that diagnosis of primary, secondary and specific skin lesions can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 5 = 75 minutes)

Summarizing the important points and takeaways on the diagnosis of primary, secondary and specific skin lesions

Experiential-Learning 6.7 : Psoriasis Area Severity Index (PASI) determination

Total Activity Hours (1 hour)

Step 1: Demonstration of Psoriasis Area Severity Index (PASI) determination **(30 minutes)**.

The student will conduct physical examinations of real patients of psoriasis focussing local examination of the skin where the severity of psoriasis will be measured using PASI independently in outpatients and inpatient departments. The students will prepare the case record forms of the patient.

Step 2 Interactive discussion (15 minutes)

The teacher will initiate a discussion session post-demonstration so that the Psoriasis Area Severity Index (PASI) determination can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes)

Summarizing the important points and takeaways on the Psoriasis Area Severity Index (PASI) determination

Experiential-Learning 6.8 : Vitiligo Area Severity Index (VASI) measuremnt

Total Activity Hours (1 hour)

Step 1: Demonstration of Vitiligo Area Severity Index (VASI) measuremnt **(30 minutes).**

The student will conduct physical examinations of real patients with vitiligo, focusing on local examination of the skin. The severity of vitiligo will be measured using VASI independently in outpatient and inpatient departments. The students will prepare the patient's case record forms.

Step 2 Interactive discussion (15 minutes)

The teacher will initiate a discussion session post-demonstration so that the Vitiligo Area Severity Index (VASI) measurement can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes)

Summarizing the important points and takeaways on the Vitiligo Area Severity Index (VASI) measurement.

Experiential-Learning 6.9 : Melasma Area Severity Index (MASI) assessment

Total Activity Hours (1 hour)

Step 1: Demonstration of Melasma Area Severity Index (MASI) assessment **(30 minutes)**.

The student will conduct physical examinations of real patients with melasma, focusing on local examination of the skin. The severity of melasma will be measured using MASI independently in outpatient and inpatient departments. The students will prepare the patient's case record forms.

Step 2 Interactive discussion (15 minutes)

The teacher will initiate a discussion session post-demonstration so that the Melasma Area Severity Index (MASI) assessment can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes)

Summarizing the important points and takeaways on the Melasma Area Severity Index (MASI) assessment

Experiential-Learning 6.10 : Dermatology Life Quality Index (DLQI) Assessment

Total Activity Hours (1 hour)

Step 1: Assessment of Dermatology Life Quality Index (DLQI) **(30 minutes)**.

The students will independently measure the dermatology life quality index of patients suffering from skin diseases using the DLQI questionnaire in outpatient and inpatient departments. They will also prepare the patient's case record forms.

Step 2 Interactive discussion (15 minutes)

The teacher will initiate a discussion session post-demonstration so that the Dermatology Life Quality Index (DLQI) Assessment can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes)

Summarizing the important points and takeaways on the Dermatology Life Quality Index (DLQI) assessment.

Modular Assessment

Assessment method	**Hour**
Instructions – Conduct a structured modular assessment. Assessment will be for 50 marks for this module. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Structured Long Answer Question (LAQ)– 25 Marks	4

Students will answer a Structured Long Answer Question (LAQ) designed to assess their comprehensive understanding of importance of ethics in clinical practice 2. Oral Viva – 15 Marks Evaluate understanding of types of skin lesion, ethical principles etc. 3. Quiz – 10 Marks 10 questions (1 mark each) or Any practical in converted form can be taken for assessment (25) and any experiential such as portfolios/reflections/presentations, can be taken as an assessment (25)	

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical/experiential) learning session, the students should be able to)	3C Notional Learning Hours	3D Lecture/ Practical/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/ Shows how/ Knows how/ Know)	3G Teaching Learning Methods
Module 7 : جلدی ماہیت المرضی Jildi Mahiyatul Marazi (Dermatopathology)						
Module Learning Objectives **(At the end of the module, the students should be able to)** **1** Describe the pathological features of common inflammatory skin diseases and tissue reaction patterns 2 Demonstrate reactive units of skin and minor and major reaction patterns in dermatological diseases 3 Identify patterns of dermatological inflammation and tissue reaction pattern and categorize inflammatory dermatoses						
Unit 1 نسیجی ردعمل کی بڑی شکلیں Nasīji Radd-i 'Amal ki Badi Shaklein (Major tissue reaction patterns) 7.1.1 بڑے نسیجی ردعمل کی شکلوں کی خصوصیات (Features of major tissue reaction patterns) 7.1.2 جلد کی ری ایکٹیو یونٹس (Reactive units of skin) 7.1.3 التہابی خطہ جات جلد اور ان کے شکلی نمونے (Inflammatory dermatomes and their morphological patterns) **References:** 16,17						

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Describe features of major tissue reaction patterns in dermatopatholgy	2	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO5,CO6	Demonstrate reactive units of skin and key tissue compartments	4	Practical7.1	PSY-GUD	Shows-how	D,D-M,DIS,PER

CO1,CO4,CO7	Discuss inflammatory dermatoses as per their morphological patterns	5	Experiential-Learning7.1	PSY-ORG	Shows-how	CBL,D,D-BED

Unit 2 نسیجی ردعمل کی چھوٹی تشکلیں Nasīji Radd-i ‘Amal ki Choti Shaklein (Minor tissue reaction patterns)

7.2.1 چھوٹے نسیجی ردعمل کی شکلوں کی خصوصیات (Features of minor tissue reaction patterns)

7.2.2 بشری ردعمل کی شکلیں (Epidermal reaction patterns)

7.2.3 ادمّی ردعمل کی شکلیں (Dermal reaction patterns)

References: 18

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Explain minor tissue reaction patterns in dermatopathology	2	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO4,CO5	Demonstrate the various epidermal reaction patterns	4	Practical7.2	PSY-GUD	Shows-how	CBL,D,D-BED,DIS,PBL
CO1,CO4,CO5	Demonstrate various dermal reaction patterns in skin diseases	5	Experiential-Learning7.2	CS	Does	CBL,D,D-BED,DIS,SDL

Unit 3 التہاب جلد کی اہم صورتیں Iltihāb-i Jild ki Aham Sūratein (Patterns of Dermatological Inflammation)

7.3.1 التہابی جلدی امراض کی ماہیت المرضی تبدیلیاں (Pathological changes in inflammatory skin diseases)

7.3.2 التہابی جلدی امراض کی مختلف شکلیں اور علامات ونشانیاں (Patterns and features of inflammatory skin diseases)

References: 16

3A	3B	3C	3D	3E	3F	3G

CO1,CO4	Discuss the pathological features of common inflammatory skin diseases	1	Lecture	CE	Knows-how	DIS,L,L&GD,L&PPT ,L_VC
CO1,CO4,CO5	Demonstrate the patterns of inflammatory skin diseases	2	Practical7.3	PSY-GUD	Shows-how	CBL,D,D-BED,DIS,PrBL
CO1,CO5	Discuss clinical manifestation and pathological changes in common skin diseases	3	Experiential-Learning7.3	PSY-ORG	Knows-how	BS,CBL,D,D-BED,DIS,PBL

Practical Training Activity

Practical 7.1 : Role of reactive units of skin

Total Learning Hours (4 hours)

The teacher will demonstrate the structure and role of reactive units of skin and key tissue compartments in skin diseases with the help of audio-visual aids/charts (1 hour). The students will have an understanding of the reactive units of the skin. as it helps in identifying patterns of response in different dermatologic conditions. The teacher will present different cases to explain the role of reactive units of skin in different clinical conditions (2 hours).

Post-activity discussion (30 minutes)

The teacher will discuss cases to explain the role of reactive units of skin.

Assessment and Feedback (30 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 7.2 : Epidermal reaction patterns

Total Learning Hours (4 hours)

The teacher will demonstrate the various epidermal reaction patterns with the help of audio-visual aids /charts to familiarize students with histopathological features of epidermal reactions and their clinical relevance (1 hour).

Hands-on

The students will review histopathology slides showing different epidermal reaction patterns such as hyperkeratosis, parakeratosis, acanthosis and spongiosis. They will correlate these findings with clinical conditions (2 hours).

Post-activity discussion (30 minutes)

The teacher will discuss cases to explain the epidermal reaction patterns.

Assessment and Feedback (30 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning..

Practical 7.3 : The patterns of inflammatory skin diseases

Total Learning Hours (2 hours)

The teacher will demonstrate various patterns of inflammatory skin diseases with the help of audio-visual aids /charts to enhance students' ability to recognize and differentiate patterns in inflammatory skin diseases. The students will be shown various clinical photographs of inflammatory skin diseases such as eczema, psoriasis, lupus erythematosus, and drug-induced eruptions. They will be asked to identify the specific characteristics (e.g., erythema, scaling, lichenification, vesiculation) and link them to common clinical patterns (1 hour).

Post-activity discussion (45 minutes)

The teacher will discuss cases to explain the patterns of inflammatory skin diseases.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Experiential learning Activity

Experiential-Learning 7.1 : Morphological patterns of inflammatory dermatoses

Total Activity Hours (5 hours)

Step 1: Demonstration of morphological patterns of inflammatory dermatoses.

The students will categorize inflammatory dermatoses as per their morphological patterns during audio-visual presentations to familiarize students with the various morphological patterns of inflammatory dermatoses. The students will examine slides/images showing different inflammatory dermatoses and learn to identify the morphological changes in the skin to develop a deeper understanding of these patterns. The students can focus on identifying and interpreting these changes in clinical settings, histopathology, and dermatoscopy.

There should be five cases to be taken by each student (30 minutes x 5 = 150 minutes).

Step 2 Interactive discussion (15 minutes x 5 = 75 minutes)

The teacher will initiate a discussion session post-examination so that morphological patterns of inflammatory dermatoses can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 5 = 75 minutes)

Summarizing the important points and takeaways on the morphological patterns of inflammatory dermatoses.

Experiential-Learning 7.2 : Dermal reaction patterns

Total Activity Hours (5 hours)

Step 1: Demonstration of dermal reaction patterns.

The students will demonstrate various dermal reaction patterns in skin diseases during audio-visual presentation to enhance students' ability to recognize and interpret dermal reaction patterns at the microscopic level. The students will examine histopathological slides that demonstrate various dermal reaction patterns such as dermal edema, granulomatous inflammation, vasculitis, scleroderma, and fibrosis.

There should be five cases to be taken by each student (30 minutes x 5 = 150 minutes).

Step 2 Interactive discussion (15 minutes x 5 = 75 minutes)

The teacher will initiate a discussion session post-examination so that Dermal reaction patterns skills can be discussed to have a good understanding or a comprehensive knowledge about it. The teacher can guide students through the identification of these patterns and discuss their association with different diseases.

Post-activity wrap-up (15 minutes x 5 = 75 minutes)

Summarizing the important points and takeaways on the Dermal reaction patterns.

Experiential-Learning 7.3 : Clinical manifestations of skin diseases

Total Activity Hours (3 hours)

Step 1: Clinical case presentation and Hands-on Diagnosis (2 hours)

The students will correlate clinical manifestations and pathological changes in common skin diseases. The following activities will help in enhancing the diagnostic skills.

Students can be provided with a variety of case studies that include images of common clinical skin conditions. They can use clinical examination techniques and diagnostic tools to analyze the skin lesions, formulate differential diagnoses, and discuss the pathology behind the skin changes.

Step 2 Interactive discussion (30 minutes)

The teacher will initiate a discussion session post-presentation so that clinical manifestations of skin diseases can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (30 minutes)

Summarizing the important points and takeaways on the clinical manifestations of skin diseases.

Modular Assessment

Assessment method	**Hour**
Instructions – Conduct a structured modular assessment. Assessment will be for 25 marks for this module. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Peer Assessment – 15 Marks Students will be evaluated through Peer Assessment based on their participation, collaboration, and contribution during discussions, presentations, or group activities on Immuno-dermatology. Assessment will cover: Knowledge and Understanding (5 Marks) Communication and Presentation (5 Marks) Teamwork and Collaboration (5 Marks) 2. Quiz – 10 Marks 10 questions (1 mark each) covering key concepts, diagnosis, and treatment approaches. or Any practical in converted form can be taken for assessment (15)	2

and any experiential such as portfolios/reflections/presentations can be taken as an assessment (10)	

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical/experiential) learning session, the students should be able to)	3C Notional Learning Hours	3D Lecture/ Practical/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/ Shows how/ Knows how/ Know)	3G Teaching Learning Methods
Module 8 : تشخیصات امراض جلد Tashkeesāt-i Amraze Jild (Diagnostic dermatology)						
Module Learning Objectives **(At the end of the module, the students should be able to)** 1 Describe the laboratory procedures related to cutaneous diagnosis 2 Conduct the laboratory procedures like direct microscopy, dermoscopy, diascopy and woods' lamp examination 3 Recommend laboratory investigations required for accurate diagnosis of various dermatoses. 4 Interpret the findings of Mu'aina Nabz, Baul wa Baraz and other laboratory tests for diagnosis of skin diseases.						
Unit 1 معائنہ نبض،بول وبراز واصابات جلد برائے تشخیص امراض جلد Mu'āina-i Nabz, Bawl wa Barāz wa Isābāt-i jild barā'y Tashkīs-i Amrāz-i Jild (Mu'aina Nabz, Baul wa Baraz Isābāt-i jild for diagnosis of skin diseases) 8.1.1 معائنہ نبض (Mu'āina-i Nabz) 8.1.2 معائنہ بول و براز (Mu'āina-i Bawl wa Barāz) 8.1.3 اصابات جلد کی مزاجی حیثیت (Temperament of the skin lesions) **References:** 3,5,7						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO1,CO4,CO5	Describe Mu'aina Nabz, Baul wa Baraz for diagnosis and prognosis of skin diseases	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC

CO1,CO3	Demonstrate Mu'aina Nabz, Baul wa Baraz with reference to skin diseases	4	Practical8.1	PSY-GUD	Shows-how	CBL,D,D-BED,DIS
CO1,CO3	Assess temperament of the skin lesion	5	Experiential-Learning8.1	PSY-ORG	Does	CBL,D,D-BED,DIS,PL

Unit 2 تشخیصی عملیات-ا Tashkhisi Amaliyāt-1 (Diagnostic Procedures-1)

8.2.1 ووڈ لیمپ (Woods Lamp)

8.2.2 ڈرموسکوپی (Dermoscopy)

8.2.3 ٹرائیکو اسکوپی (Trichoscopy)

8.2.4 ڈایااسکوپی (Diascopy)

8.2.5 الکٹران مائکرواسکوپی (Electron Microscopy)

References: 14

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Explain Wood's lamp examination and interpret the findings	1	Lecture	CE	Knows-how	D,L&GD,L&PPT ,L_VC
CO2,CO3	Discuss diagnostic findings of dermoscopy and trichoscopy in different skin diseases	1	Lecture	CK	Knows-how	L,L&GD,L&PPT ,L_VC
CO2,CO3	Discuss diascopy and electron microscopy	2	Lecture	CK	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3	Demonstrate the procedure of Wood's lamp examination to diagnose skin clinical conditions	5	Practical8.2	PSY-GUD	Shows-how	CBL,D,PBL
CO1,CO3	Demonstrate the procedures of dermatoscopy and trichoscopy	3	Practical8.3	PSY-GUD	Shows-how	D,L_VC

CO2,CO3	Conduct Wood's lamp examination for diagnosis of skin diseases	5	Experiential-Learning8.2	PSY-GUD	Does	CBL,PL
CO1,CO2	Perform diascopy and dermatoscopy for clinical diagnosis	4	Experiential-Learning8.3	PSY-ORG	Does	CD,CBL,D

Unit 3 تشخیصی عملیات-۲ Tashkhisi Amaliyāt-2 (Diagnostic Procedures-2)

8.3.1 پیچ ٹیسٹ (Patch Test)

8.3.2 پرک ٹیسٹ (Prick Test)

8.3.3 ہسٹوپیتھولوجیکل اسٹینینگ پروسیزرس (Histopathological Staining Procedures)

References: 1

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Discuss patch test and prick test	1	Lecture	CK	Knows-how	L,L&GD,L&PPT ,L_VC
CO2,CO3	Explain commonly used histological stains in dermatology	1	Lecture	CE	Knows-how	L,L&GD
CO1,CO3	Demonstrate the steps of procedure of histological staining along with histopathology features.	3	Practical8.4	PSY-GUD	Shows-how	CD,CBL
CO1,CO3	Demonstrate the procedure of patch test and prick test	2	Practical8.5	PSY-GUD	Shows-how	D,DL
CO3,CO4,CO5	Evaluate the results of patch tests and prick tests in clinical cases.	3	Experiential-Learning8.4	PSY-ORG	Does	CBL,DIS,PL
CO2,CO3	Discuss the histopathological findings in dermatology	2	Experiential-Learning8.5	PSY-ORG	Does	BS,CD

Unit 4 تشخیصی عملیات-۳ Tashkhisi Amaliyāt-3 (Diagnostic Procedures-3)

8.4.1 انزائم لنکڈ ایمیونواسے (Enzyme -linked immunoassay (ELISA))

8.4.2 ویسٹرن بلاٹ (Western Blot)

8.4.3 پولیمریز چین ری ایکشن (Polymerase chain reaction (PCR))

8.4.4 ایمینو فلوریسنس ٹیسٹ (Immunofluorescence test)

8.4.5 ایمینو پر آکسیڈیز ٹیسٹ (Immunoperoxidase Test)

References: 1

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the procedure of enzyme linked immunoassay (ELISA) and polymerase chain reaction (PCR)	2	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO2,CO3,CO4	Explain application of immunofluorescence, Western blot test and immunoperoxidase test (IP)	2	Lecture	CE	Knows-how	L&GD,L&PPT ,L_VC
CO2,CO4	Demonstrate enzyme linked immunoassay (ELISA), Western blot test, polymerase chain reaction (PCR), immunofluorescence, and immunoperoxidase test (IP)	5	Practical8.6	PSY-GUD	Shows-how	D,L&PPT ,L_VC
CO1,CO3	Interpret the findings of enzyme-linked immunoassay (ELISA), Western blot test, polymerase chain reaction (PCR), immunofluorescence and immunoperoxidase test (IP) with medical history and clinical examination	5	Experiential-Learning8.6	PSY-ORG	Knows-how	DIS,LRI,PBL

Unit 5 اخزاع Ikhteza' (Biopsy)

8.5.1 بایوپسی اور اس کی اقسام (Biopsy and its types)

8.5.2 غیر سرطانی اصابات کے ہسٹو پیتھو لوجیکل ظواہر (Histopathological findings of a cutaneous non-neoplastic lesion)

References: 29

3A	3B	3C	3D	3E	3F	3G
CO2,CO4	Discuss biopsy and its various types with clinical applications	2	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3	Demonstrate the histopathological findings of various cutaneous non neoplastic lesion	4	Practical8.7	PSY-GUD	Shows-how	CBL,D,DIS,L_VC,PBL
CO1,CO3,CO4	Interpret the histological images of different dermatological specimen	5	Experiential-Learning8.7	PSY-ORG	Does	CBL,DIS,PBL,SDL

Unit 6 مائیکولوجیکل اور دیگر تصنیفی امتحانات Mycological aur dīgar Taftīshī Imtīhānāt Mycological & other tests

8.6.1 اسکن اسکریپنگ اور نیل کلپنگ (Skin scrapings and nail clippings)

8.6.2 فنگل کلچر (fungal culture)

References: 1,8,12,28

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Discuss procedure and importance of direct microscopy of skin scrapings and nail clippings	2	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO2,CO7	Demonstrate the procedure of fungal culture	4	Practical8.8	PSY-GUD	Shows-how	DL,DIS,L_VC,PBL

CO1,CO5,CO7	Discuss the results of direct microscopy and culture report	5	Experiential-Learning8.8	PSY-ORG	Knows-how	DIS,LRI,LS
CO5,CO7	Conduct a critical appraisal of the literature on laboratory procedures in dermatology	5	Experiential-Learning8.9	PSY-ORG	Does	BS,DIS,JC,LS

Practical Training Activity

Practical 8.1 : Mu'aina Nabz, Baul wa Baraz

Total Learning Hours (4 hours)

The teacher will demonstrate Mu'aina Nabz (30 minutes), Baul (30 minutes) wa Baraz (30 minutes) with reference to skin diseases.

Hands-on/practicals

The students will repeat the Mu'aina Nabz (30 minutes), Baul (30 minutes) wa Baraz (30 minutes).The students will maintain a lab notebook to document the findings of Mu'aina Nabz, Baul wa Baraz.

Post-activity discussion (45 minutes)

The teacher will discuss the whole procedure of Mu'aina Nabz, Baul wa Baraz. The teacher will also discuss the findings of Mu'aina Nabz, Baul wa Baraz in different diseases.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

The teacher will discuss the different samples of stool and urines with relevance to skin diseases.

Practical 8.2 : Wood's lamp examination

Total Learning Hours (5 hours)

The teacher will demonstrate Wood’s Lamp and its application procedures step-wise in real patients to diagnose skin diseases (1 hour).

The teacher will demonstrate the findings of Wood's lamp examination in vitiligo, psoriasis and fungal infections in different clinical cases. (1 hour)

Hands-on/practicals

The students will repeat the steps of Wood's lamp examination.The students will maintain a lab notebook to document steps of Wood’s lamp application and diagnostic features on real patients of different skin diseases (2 hours).

Post-activity discussion (45 minutes)

The teacher will discuss the whole procedure of Wood's lamp examination. The teacher will also discuss the findings of Wood's lamp examination in different diseases.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 8.3 : Dermatoscopy and trichoscopy

Total Learning Hours (3 hours)

The teacher will demonstrate dermatoscope and its application procedures step-wise in real patients/ through audio-visual aids (1 hour).

Hands-on/practicals

The students will repeat the steps for dermatoscopy and trichoscopy. The students will also maintain a lab notebook to document the application procedure of dermatoscopy and diagnostic features in real patients with skin and hair diseases (1 hour).

Post-activity discussion (45 minutes)

The teacher will discuss the whole procedure of dermatoscopy and trichoscopy. The teacher will also discuss the findings of dermatoscopy and trichoscopy in different diseases.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 8.4 : Procedure of histological staining

Total Learning Hours (3 hours)

The teacher will demonstrate slide preparation (20 minutes), reagent handling, staining technique (20 minutes), and interpretation of the findings (20 minutes) in the laboratory or through audio-visual aid.

Hnad-on/practicals

The students will repeat the steps for each staining procedure and document the observations including labelled drawings or photographic documentation of stained slides (60 minutes).

Post-activity discussion (45 minutes)

The teacher will discuss the whole procedure of histological staining.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 8.5 : Patch test and prick test

Total Learning Hours (2 hours)

The teacher will demonstrate the procedure of patch test and prick test step-wise on real patients or with the help of audio-visual aids to diagnose skin diseases. (1 hour)

The students will maintain a lab notebook to document the application procedure of the patch test and prick test.

Post-activity discussion (45 minutes)

The teacher will discuss the procedure, clinical application and limitations of patch tests and prick tests.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 8.6 : ELISA, Western blot test, PCR and IP

Total Learning Hours (5 hours)

The teacher will demonstrate application procedures and techniques of enzyme linked immunoassay (ELISA) test (1 hour), Western blot test (30 minutes), polymerase chain reaction (PCR) (30 minutes), immunofluorescence (30 minutes) , and immunoperoxidase test (IP) (30 minutes) stepwise in laboratory or audio-visual clippings to diagnose skin diseases.

The students will maintain a lab notebook to document procedures and techniques of enzyme linked immunoassay (ELISA) test, Western blot test, polymerase chain reaction (PCR), immunofluorescence, and immunoperoxidase test (IP) step-wise in real patients or video clippings to diagnose skin diseases (1 hour).

Post-activity discussion (45 minutes)

The teacher will discuss procedures and techniques of enzyme linked immunoassay (ELISA) test, Western blot test, polymerase chain reaction (PCR), immunofluorescence, and immunoperoxidase test (IP).

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 8.7 : Histology of cutaneous lesions

Total Learning Hours (4 hours)

The teacher will demonstrate histopathological findings of various cutaneous non-neoplastic lesions through charts/ video clippings to diagnose skin diseases in two sessions(2 hours).

The students will document the histopathological findings of various cutaneous non-neoplastic lesions and maintain a lab notebook (1 hour).

Post-activity discussion (45 minutes)

The teacher will discuss cases to explain the clinical importance of histology of cutaneous lesions.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 8.8 : Fungal culture

Total Learning Hours (4 hours)

The teacher will demonstrate the procedure of fungal culture in the laboratory or through audio-visual aid.

The objective of the Practical

- To teach students how to collect skin, hair, or nail samples for fungal culture (30 minutes).
- To demonstrate the proper techniques for culturing fungi on appropriate media (30 minutes).
- To guide students in identifying fungal colonies based on morphology and understanding the significance of these findings (30 minutes).
- To help students interpret fungal culture results in the context of a patient's clinical presentation (30 minutes).

The student will repeat the practicals to learn the whole procedure (1 hour).

The students will maintain a lab notebook to document steps, observations and outcomes for fungal culture.

Post-activity discussion (45 minutes)

The teacher will discuss cases to explain Fungal culture in the clinical practice of dermatology.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Experiential learning Activity

Experiential-Learning 8.1 : Assessment of temperament of the skin lesion

Total Activity Hours (5 hours)

Step 1: Demonstration of assessment of temperament of the skin lesion

The student will demonstrate the procedure of assessment of temperament of the skin lesion in various skin diseases. (30 minutes x 3 = 90 minutes)

Hands-on/practicals

The student will assess the temperament of the skin lesion on patients to determine the humoural association of skin diseases in outpatient and inpatient departments independently through the Case Based Learning method.

The Hands-on session will be divided into 3 sessions (30 minutes x 3 = 90 minutes)

The students will maintain case record forms to document patients' profiles and diagnostic features of assessment of temperament of the skin lesion in real patients with skin diseases.

Step 2 Interactive discussion (20 minutes x 3 = 60 minutes)

The teacher will initiate a discussion session post-demonstration so that the assessment of temperament of the skin lesion can be discussed in clinical scenarios to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (20 minutes x 3 = 60 minutes)

Summarizing the important points and takeaways on the clinical application of assessment of temperament of the skin lesion.

Experiential-Learning 8.2 : Wood's lamp examination

Total Activity Hours (5 hours)

Step 1: Demonstration of Wood's lamp examination

The student will demonstrate the procedure of Wood's lamp examination to diagnose various skin diseases through audio-visuals (1 hour).

Hands-on/practicals

The student will also perform Wood's lamp examination on real patients to diagnose various skin diseases in outpatient and inpatient departments independently.

The Hands-on session will be divided into 4 sessions (30 minutes x 4= 2 hours)

The students will maintain case record forms to document patients' profiles and diagnostic features with images of Wood's lamp examination in real patients with skin diseases.

Step 2 Interactive discussion (15 minutes x 4 = 60 minutes)

The teacher will initiate a discussion session post-demonstration so that the Wood's lamp examination can be discussed in clinical scenarios to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 4 = 60 minutes)

Summarizing the important points and takeaways on the clinical application of Wood's lamp examination.

Experiential-Learning 8.3 : Dermatoscopy and Diascopy

Total Activity Hours (4 hours)

Step 1: Demonstration of Dermatoscopy and Diascopy

The student will demonstrate diascopy and dermatoscopy on real patients to diagnose various skin diseases in outpatient and inpatient departments independently (1 hour).

Hands-on/practicals

The student will also perform diascopy and dermatoscopy on real patients to diagnose various skin diseases in outpatient and inpatient departments independently.

The Hands-on session will be divided into 2 sessions

Dermatoscopy (45 minutes)

Diascopy (45 minutes).

The students will maintain case record forms to document patients' profiles and diagnostic features of diascopy and dermatoscopy in real patients with skin diseases.

Step 2 Interactive discussion (30 minutes x 2 = 60 minutes)

The teacher will initiate a discussion session post-demonstration so that the dermatoscopy and diascopy can be discussed in clinical scenarios to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 2 = 30 minutes)

Summarizing the important points and takeaways on the clinical application of dermatoscopy and diascopy.

Experiential-Learning 8.4 : Patch test and prick test

Total Activity Hours (3 hours)

Step 1: Demonstration of clinical application of patch test and prick test

The student will demonstrate the clinical application of the results of patch tests and prick tests on real patients to diagnose skin diseases in outpatient and inpatient departments independently.

The students will maintain case record forms to document patients' profiles and diagnostic features of patch tests and prick tests in real patients with skin diseases.

The demonstration session will be divided into 2 sessions

Patch tests (45 minutes)

Prick tests (45 minutes).

Step 2 Interactive discussion (30 minutes x 2 = 60 minutes)

The teacher will initiate a discussion session post-demonstration so that the patch test and prick test can be discussed in clinical scenarios to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 2 = 30 minutes)

Summarizing the important points and takeaways on the clinical application of patch test and prick test.

Experiential-Learning 8.5 : Histopathological findings in dermatology

Total Activity Hours (2 hours)

Step 1: Demonstration of histopathological findings in dermatology (1 hour)

The student will demonstrate the cases for which histopathology reports are required for accurate diagnosis of skin diseases during case presentation to correlate the reports with medical history and clinical examination.

Step 2 Interactive discussion (30 minutes)

The teacher will initiate a discussion session post-demonstration so that histopathological findings in dermatology can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (30 minutes)

Summarizing the important points and takeaways on histopathological findings in dermatology

Experiential-Learning 8.6 : Enzyme linked immunoassay (ELISA), Western blot test, polymerase chain reaction (PCR), immunofluorescence and immunoperoxidase test (IP)

Total Activity Hours (5 hours)

Step 1: Demonstration of procedure of Enzyme linked immunoassay (ELISA), Western blot test, polymerase chain reaction (PCR), immunofluorescence and immunoperoxidase test (IP)

The student will demonstrate the cases for which ELISA, Western blot test, PCR, immunofluorescence, and immunoperoxidase test required for accurate diagnosis of skin diseases during case presentation to correlate the reports with medical history and clinical examination.

The demonstration session will be divided into 5 sessions

ELISA (30 minutes)

Western blot test (30 minutes)

PCR (30 minutes)

Immunofluorescence (30 minutes)

Immunoperoxidase test (30 minutes)

Step 2 Interactive discussion (15 minutes x 5 = 75 minutes)

The teacher will initiate a discussion session post-demonstration so that Enzyme linked immunoassay (ELISA), Western blot test, polymerase chain reaction (PCR), immunofluorescence and immunoperoxidase test (IP) can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 5 = 75 minutes)

Summarizing the important points and takeaways on Enzyme linked immunoassay (ELISA), Western blot test, polymerase chain reaction (PCR), immunofluorescence and immunoperoxidase test (IP)

Experiential-Learning 8.7 : Histological images of different dermatological specimens

Total Activity Hours (5 hours)

Step 1: Demonstration of histological images of different dermatological specimen

The student will demonstrate the histological images of different dermatological specimens for accurate diagnosis of skin diseases during case presentation to correlate the findings with medical history and clinical examination. The students will focus on the ability to interpret histopathological images of dermatological specimens and understand the histological features of common skin diseases (e.g., eczema, psoriasis, melanoma, basal cell carcinoma).

The demonstration session will be divided into 4 sessions (40 minutes x 4 = 160 minutes).

Step 2 Interactive discussion (20 minutes x 4 = 80 minutes)

The teacher will initiate a discussion session post-demonstration so that histological images of different dermatological specimens can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (15 minutes x 4 = 60 minutes)

Summarizing the important points and takeaways on histological images of different dermatological specimens.

Experiential-Learning 8.8 : Direct microscopy and culture report

Total Activity Hours (5 hours)

Step 1: Demonstration of direct microscopy and culture report

The student will demonstrate the correlation between the results of direct microscopy and fungal culture independently for accurate diagnosis of skin diseases in clinical cases. By understanding, how to integrate both diagnostic approaches, students will enhance their ability to accurately diagnose and manage skin infections in clinical

practice. The correlation can be used to assess the effectiveness of different diagnostic techniques and understand the limitations and strengths of each. The student will discuss the correlation in his/her presentation in different case scenario.

The demonstration session will be divided into 3 sessions (60 minutes x 3 = 180 minutes).

Step 2 Interactive discussion (30 minutes x 3 = 90 minutes)

The teacher will initiate a discussion session post-demonstration so that direct microscopy and culture reports can be discussed to have a good understanding or a comprehensive knowledge about it.

Post-activity wrap-up (30 minutes)

Summarizing the important points and takeaways on direct microscopy and culture report.

Experiential-Learning 8.9 : Critical appraisal of published research

Total Activity Hours (5 hours)

Step 1: Presentation of a critical appraisal of the published article

The students will collect the published clinical studies on laboratory procedures in dermatology through online database searches individually and present a critical appraisal of the articles in the journal club individually. Each presentation will review and evaluate the research methodologies and findings related to various diagnostic tools and techniques used in dermatologic practice.

The Journal club will be divided into 4 sessions depending upon the number of students so that each student will get the opportunity to present in the journal club (30 minutes x 4 = 2 hour).

Step 2 Interactive discussion (30 minutes x 4 = 2 hour)

The teacher will initiate a discussion session post-presentation which will provide an opportunity to put his/her view on the skills of critical appraisal of the published literature.

Post-activity wrap-up (15 minutes x 4 = 1 hour)

Summarizing the important points and takeaways on the skills of critical appraisal of the published literature.

Modular Assessment

Assessment method	Hour
Instructions – Conduct a structured modular assessment. Assessment will be for 75 marks for this module. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. OSPE – Diagnostic Dermatology (Total: 25 Marks) -To assess students' ability to select, perform, interpret, and explain diagnostic procedures in dermatology from both modern and Unani perspectives. 2. Multiple-Choice Questions (MCQs) – 30 Marks 15 MCQs (2 marks each) covering key topics related to diagnostic dermatology 3. Oral Viva – 10 Marks Evaluate understanding of diagnostic procedures like direct microscopy, histological staining, Woods lamp examination, microbial culture, dermoscopy, trichoscopy, diascopy, electron microscopy, ELISA, Western blot test, PCR, biopsy and Mu'aina Nabz, Baul wa Baraz 4. Quiz – 10 Marks 10 questions (1 mark each) Or Any practical in converted form can be taken for assessment. (40 Marks) and Any experiential, such as portfolios/ reflection/ presentations, can be taken as an assessment. (35 Marks)	6

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical/experiential) learning session, the students should be able to)	3C Notional Learning Hours	3D Lecture/ Practical/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/ Shows how/ Knows how/ Know)	3G Teaching Learning Methods
Module 9 : اصول علاج وطریقہ ہائے علاج Usūl-i Ilāj wa Tarīqahā'y Ilāj (Principles of treatment and modalities)						
Module Learning Objectives **(At the end of the module, the students should be able to)** 1 Describe the role of diet, topical and systemic therapeutics and regimenal therapies in dermatological ailments 2 Identify dermatologic clinical conditions and recommend diet and treatment for various skin diseases 3 Apply regimenal and recent therapeutic procedures to treat dermatological diseases 4 Evaluate critically the efficacy and safety of therapeutics and procedure in dermatology.						
Unit 1 غذائیات Ghiza'iyāt (Dietetics) 9.1.1 غذائیت کا یونانی نقطہ نظر (Dietetics in Unani perspectives) 9.1.2 خود مناعتی جلد ی امراض کی غذائیں (Diet in auto-immune skin diseases) 9.1.3 حار جلدی امراض میں علاج بالغذا (Dietary management for Haar Jild-i Amrāz) 9.1.4 بارد جلدی امراض میں علاج بالغذا (Dietary management for Haar Jild-i Amrāz) 9.1.5 نقص تغذیہ سے لاحق ہونے والے جلدی امراض کی غذائیں (Diet in nutritional deficiency disorders of Skin) **References:** 29						

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe dietetics in Unani perspectives and Ilaj bil Ghiza (Dietotherapy) in skin diseases.	1	Lecture	CE	Knows-how	L,L&GD
CO3,CO6	Discuss the role of diet in the prevention and treatment of auto-immune skin diseases	1	Lecture	CE	Knows-how	L,L&GD
CO3,CO6	Discuss dietary management for Haar Jild i Amrāz in clinical practice	1	Lecture	CE	Knows-how	L,L&GD
CO3,CO6	Discuss principles and practice of dietetics in Barid Jildi Amrāz	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO3,CO6	Describe dietary recommendation for prevention and treatment of nutritional deficiency disorders	1	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO4,CO5	Create dietary chart to demonstrate nutritional recommendation in various skin diseases	5	Practical9.1	PSY-GUD	Shows-how	PBL,SDL
CO1,CO4,CO5	Evaluate the influence of nutrition on the physiology of Skin	4	Experiential-Learning9.1	PSY-ORG	Does	PL,PBL
CO1,CO3,CO4	Conduct literature search about foods causing allergic skin diseases	5	Experiential-Learning9.2	PSY-ORG	Knows-how	BS,DIS

Unit 2 جلدی علاج بالتدبیر Jildi Ilāj bit Tadbeer (Regimenal therapies related to skin)

9.2.1 معالجات جلد میں علاج بالتدبیر کی طبی افادیت (Efficacy of regimental therapy in dermatology)

9.2.2 حجامہ، فصد، عملِ کئی اور ارسالِ علَق (Hijamah, Fasd, Amle Kai and Irsal –i- Alaq)

9.2.3 تقشیر و ڈرماابریژن (Chemical Peeling and Dermabrasion)

References: 20

3A	3B	3C	3D	3E	3F	3G
CO2,CO4	Apply regimenal therapy for skin diseases and their outcomes and complications	2	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC

CO2,CO3	Discuss SOPs of Hijamah, Fasd, Amle Kai and Irsal –i- Alaq in dermatological clinical conditions	4	Lecture	CE	Knows-how	L,L&GD,L&PPT ,L_VC
CO1,CO3	Demonstrate methods of application of Hijamah in dermatological clinical conditions	5	Practical9.2	PSY-GUD	Shows-how	CBL,D,PBL
CO1,CO3	Demonstrate the procedure of Irsal –i- Alaq in skin diseases	5	Practical9.3	PSY-GUD	Shows-how	CBL,PBL
CO1,CO3	Demonstrate the procedure of cauterization in dermatology	5	Practical9.4	PSY-GUD	Shows-how	CBL,L_VC
CO1,CO3	Evaluate safety and clinical efficacy of regimental therapy in dermatology	5	Experiential-Learning9.3	PSY-ORG	Does	CBL,PBL
CO1,CO3	Discuss core principles of Taqsheer (including chemical peeling and dermabrasion)	5	Experiential-Learning9.4	PSY-GUD	Does	BS,PrBL
CO4,CO5,CO7	Conduct critical appraisal of published clinical trial in regimental therapy	5	Experiential-Learning9.5	PSY-ORG	Does	JC,KL

Unit 3 جلدی طریقہ ہائے علاج Jildi Tarīqahā'y Ilāj (Dermato-therapeutics)

9.3.1 مقامی علاج (Topical Therapy)

9.3.2 نظامی علاج (Systemic Therapy)

9.3.3 علاج بالضوء (Phototherapy)

9.3.4 اسٹم سیل تھیراپی (Stem cell Therapy)

9.3.5 ٹیلی پیتھی (Telepathy)

References: 14,21,22,27

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Discuss principles of topical and systemic therapy and therapeutics for dermatological diseases	3	Lecture	CE	Knows-how	L,L&GD

CO2,CO3	Illustrate application of phototherapy and telemedicine in dermatology.	1	Lecture	CE	Knows-how	L,L&GD
CO1,CO3	Demonstrate procedure of Telemedicine in Dermatology	4	Practical9.5	PSY-GUD	Shows-how	BS,D
CO1,CO3	Demonstrate procedure of photodynamic therapy	3	Practical9.6	PSY-GUD	Shows-how	D,L_VC
CO1,CO3	Demonstrate the procedure of stem cell therapy in dermatology	3	Practical9.7	PSY-GUD	Shows-how	D,L_VC
CO3,CO5,CO7	Evaluate the published literature on clinical application of stem cell therapy in dermatology	5	Experiential-Learning9.6	PSY-ORG	Does	DIS,PBL
CO5,CO7	Evaluate the clinical efficacy of phototherapy in vitiligo/psoriasis	5	Experiential-Learning9.7	PSY-ORG	Does	CBL,DIS,PSM
CO6,CO7	Conduct critical appraisal of clinical trial on topical and systemic Unani drugs in dermatological conditions	5	Experiential-Learning9.8	PSY-ORG	Knows-how	BS,DIS,JC,LS,W

Practical Training Activity

Practical 9.1 : Disease-specific dietary chart

Total Learning Hours (5 hours)

The teacher will demonstrate how to create a disease-specific dietary chart considering Unani principles of dietetics that should include recommended diet and diet to be avoided based on rationale and scientific evidence (1 hour). The teacher will demonstrate the use of outcomes of recent research and dietary guidelines in the preparation of a dietary chart (1 hour). The teacher will create a dietary chart for common clinical conditions like Vitiligo, Urticaria, Eczema, Psoriasis, and Deficiency skin disorders (1 hour).

Hands-on/practical

The students will demonstrate the disease-specific dietary charts in dermatology. (1 hour)

Post-activity discussion (45 minutes)

The teacher will discuss the methodology of preparation of disease-specific dietary charts in dermatology and the merits and demerits of disease-specific dietary charts in clinical practice.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 9.2 : Application of Hijamah

Total Learning Hours (5 hours)

The teacher will demonstrate the critical steps of the application of Hijamah in dermatological clinical conditions (30 minutes). The teacher will demonstrate standard operating procedures of Hijamah including the use of cupping instruments in real patients in a minor operation theatre (30 minutes). The teacher will demonstrate the application of Hijamah in different diseases (2 hours).

Hands-on/practical

The students will perform Hijamah in dermatological clinical conditions. (1 hour)

Post-activity discussion (45 minutes)

The teacher will discuss the whole procedure of Hijamah in dermatology and the merits and demerits of Hijamah in dermatology in clinical practice.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 9.3 : Procedure of Irsal –i- Alaq

Total Learning Hours (5 hours)

The teacher will demonstrate the critical steps of application of Irsal –i- Alaq in dermatological clinical conditions. The teacher will demonstrate the use of leeches in real patients for preventive and therapeutic purposes (1 hour).

The teacher will demonstrate the application of Irsal -i-Alaq in different diseases and follow-up cases (1 hour).

Hands-on/practical

The students will repeat the procedure of Irsal –i- Alaq in clinical practice (2 hours)

Post-activity discussion (45 minutes) The teacher will discuss the whole procedure of Irsal –i- Alaq and the merits and demerits of the procedure of Irsal –i- Alaqy in clinical practice. Assessment and Feedback (15 minutes) Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.
Practical 9.4 : Cauterization in dermatology
Total Learning Hours (5 hours) The teacher will demonstrate the procedure of cauterization in dermatological clinical conditions (1 hour). The teacher will demonstrate standard operating procedures of cautery including the use of cautery instruments in minor operation theatre using video clippings or case demonstration (1 hour). The teacher will demonstrate the use of cautery in clinical practice using different cases (1 hour). Hands-on/practical The student will repeat the procedure for the treatment of different skin diseases. (1 hour). Post-activity discussion (45 minutes) The teacher will discuss the whole procedure of cauterization in dermatology and the merits and demerits of cauterization in dermatology in clinical practice. Assessment and Feedback (15 minutes) Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.
Practical 9.5 : Telemedicine in dermatology
Total Learning Hours (4 hours)

The teacher will demonstrate the procedure of telemedicine in dermatology using charts/audio-video aids (1 hour). The demonstration should include the use of digital technology to remotely diagnose, treat, and monitor skin conditions. Telemedicine involves a streamlined process that includes patient registration, pre-consultation preparation, dermatological evaluation, and continuous monitoring.

The teacher will demonstrate the practice of telemedicine in dermatology taking different cases of dermatological clinical conditions (1 hour).

Hands-on/practical

The students will repeat the practice of telemedicine in dermatology. (1 hour)

Post-activity discussion (45 minutes)

The teacher will discuss the whole procedure of telemedicine in dermatology and the merits and demerits of telemedicine in dermatology in clinical practice.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 9.6 : Photodynamic therapy

Total Learning Hours (3 hours)

The teacher will demonstrate the procedure of photodynamic therapy in dermatology using charts/audio-video aids (1 hour).

The teacher will demonstrate the clinical application of photodynamic therapy in different skin diseases taking case studies (30 minutes).

Flip class rooom

The students will demonstrate the procedure of photodynamic therapy and its clinical use.(30 minutes)

Post-activity discussion (45 minutes)

The teacher will discuss the whole procedure of photodynamic therapy and the merits and demerits of photodynamic therapy in clinical practice.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Practical 9.7 : Procedure of stem cell therapy

Total Learning Hours (3 hours)

The teacher will demonstrate the procedure of stem cell therapy in dermatology using charts/audio-video aids (1 hour).

The teacher will show the procedure in a structured way and include different steps such as identifying the clinical condition, stem cell source selection, stem cell harvesting, stem cell processing and isolation, and application of stem cells to the skin. (1 hour)

Post-activity discussion (45 minutes)

The teacher will discuss the whole procedure of stem cell therapy and the merits and demerits of stem cell therapy in clinical practice.

Assessment and Feedback (15 minutes)

Conduct an interactive Q & A session and provide constructive feedback to the students for their observations and reasoning.

Experiential learning Activity

Experiential-Learning 9.1 : The role of nutrition on skin

Total Activity Hours (4 hours)

Step 1: Presentation of viewpoints on the role of nutrition on skin

The students will collect the published clinical studies on the role of nutrition on the skin individually and present/discuss their viewpoint on the role of nutrition on skin in a peer group discussion/brainstorming session.. (1 hour)

Further, the discussion on the food-specific role of nutrition on the skin should be divided into 2 sessions. Each session should discuss different cases related to the role of nutrition on the skin. (2 hours)

Step 2 Interactive discussion (30 minutes)

The teacher will initiate a discussion session post-presentation which will provide an opportunity to put his/her view on the role of nutrition on skin.

Post-activity wrap-up (30 minutes)

Summarizing the important points and takeaways on role of nutrition on skin.

Experiential-Learning 9.2 : Manifestations of food allergy on skin

Total Activity Hours (5 hours)

Step 1: Presentation of viewpoints on manifestations of food allergy on skin

The students will collect the published clinical studies on manifestations of food allergy on the skin individually and present/discuss their viewpoint on the manifestations of food allergy on the skin in a peer group discussion/brainstorming session.. (1 hour)

Further, the discussion on food-specific manifestations of allergy on the skin should be divided into 2 sessions. Each session should discuss different cases related to the manifestations of food allergy on the skin. (2 hours)

Step 2 Interactive discussion (30 minutes x 2 = 1 hour)

The teacher will initiate a discussion session post-presentation which will provide an opportunity to put his/her view on the manifestations of food allergy on the skin.

Post-activity wrap-up (30 minutes x 2 = 1 hour)

Summarizing the important points and takeaways on manifestations of food allergy on the skin.

Experiential-Learning 9.3 : Regimenal therapies in dermatology

Total Activity Hours (5 hours)

Step 1: Presentation of viewpoints on regimenal therapies in dermatology

The students will collect the published clinical studies on regimenal therapy in dermatology individually and present/discuss their viewpoint on the safety and efficacy of clinical application of regimenal therapy in dermatology in a peer group discussion/brainstorming session.. (1 hour)

Further, the disease-specific discussion should be divided into 2 sessions. Each session should discuss the clinical application of regimenal therapies in different skin diseases. (2 hours)

Step 2 Interactive discussion (30 minutes x 2 = 1 hour)

The teacher will initiate a discussion session post-presentation which will provide an opportunity to put his/her view on the clinical application of regimenal therapies in dermatology.

Post-activity wrap-up (30 minutes x 2 = 1 hour)

Summarizing the important points and takeaways on clinical application of regimenal therapies in dermatology.

Experiential-Learning 9.4 : Application of Taqsheer

Total Activity Hours (5 hours)

Step 1: Presentation of viewpoints on the application of Taqsheer

The students will collect the published literature on Taqsheer (including chemical peeling and dermabrasion) individually and present/discuss their viewpoint on the safety and efficacy of clinical application of Taqsheer (including chemical peeling and dermabrasion) in dermatology in peer group discussion/brainstorming session. (1 hour)

Further, the disease-specific discussion should be divided into 2 sessions. Each session should discuss the clinical application of phototherapy in different skin diseases (2 hours)

Step 2 Interactive discussion (30 minutes x 2 = 1 hour)

The teacher will initiate a discussion session post-presentation which will provide an opportunity to put his/her view on the application of Taqsheer in dermatological diseases.

Post-activity wrap-up (30 minutes x 2 = 1 hour)

Summarizing the important points and takeaways on the application of Taqsheer in dermatology.

Experiential-Learning 9.5 : Journal Club

Total Activity Hours (5 hours)

Step 1: Presentation of a critical appraisal of the published article

The students will collect the published clinical studies in regimental therapy through an online database search individually and present a critical appraisal of the articles in the journal club individually. Each student in the class will deliver his/her presentation in a separate session of the journal club.

The Journal club will be divided into 5 sessions depending upon the number of students so that each student will get the opportunity to present in the journal club **(20 minutes x 5 = 100 minutes)**.

Step 2 Interactive discussion (20 minutes x 5 = 100 minutes)

The teacher will initiate a discussion session post-presentation which will provide an opportunity to put his/her view on the skills of critical appraisal of the published literature.

Post-activity wrap-up (20 minutes x 5 = 100 minutes)

Summarizing the important points and takeaways on the skills of critical appraisal of the published literature.

Experiential-Learning 9.6 : Safety and efficacy of stem cell therapy

Total Activity Hours (5 hours)

Step 1: Presentation of viewpoints on stem cell therapy

The students will collect the published literature on the clinical application of stem cell therapy in dermatology individually and present/discuss their viewpoint on the safety and efficacy of the clinical application of stem cell therapy in dermatology in peer group discussions or brainstorming sessions. (1 hour)

The student will discuss the application of stem cell therapy in different clinical conditions of skin.

(2 hours)

Step 2 Interactive discussion (30 minutes x 2 = 1 hour)

The teacher will initiate a discussion session post-presentation which will provide an opportunity to put his/her view on the stem cell therapy in dermatology.

Post-activity wrap-up (30 minutes x 2 = 1 hour)

Summarizing the important points and takeaways on stem cell therapy in dermatology.

Experiential-Learning 9.7 : Phototherapy in dermatology

Total Activity Hours (5 hours)

Step 1: Presentation of viewpoints on phototherapy

The students will collect the published literature on the clinical application of phototherapy in dermatology individually and present/discuss their viewpoint on the safety and efficacy of this practice in a peer group discussion or brainstorming session. (1 hour)

Further, the disease-specific discussion should be divided into 2 sessions. Each session should discuss the clinical application of phototherapy in different skin diseases such as vitiligo (1 hour) Psoriasis (1 hour) Step 2 Interactive discussion (30 minutes x 2 = 1 hour) The teacher will initiate a discussion session post-presentation which will provide an opportunity to put his/her view on the phototherapy in dermatology. Post-activity wrap-up (30 minutes x 2 = 1 hour) Summarizing the important points and takeaways on phototherapy in dermatology.
Experiential-Learning 9.8 : Critical appraisal of published literature
Total Activity Hours (5 hours) Step 1: Presentation of a critical appraisal of the published article The students will search the published clinical studies on Unani therapeutics in dermatology individually and present a critical appraisal of the articles in the journal club individually. The Journal club will be divided into 5 sessions depending upon the number of students so that each student will get the opportunity to present in the journal club (20 minutes x 5 = 100 minutes). Step 2 Interactive discussion (20 minutes x 5 = 100 minutes) The teacher will initiate a discussion session post-presentation which will provide an opportunity to put his/her view on the skills of critical appraisal of the published literature. Post-activity wrap-up (20 minutes x 5 = 100 minutes) Summarizing the important points and takeaways on the skills of critical appraisal of the published literature.
Modular Assessment

Assessment method	**Hour**

Instructions – Conduct a structured modular assessment. Assessment will be for 75 marks for this module. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Structured Long Answer Question (LAQ)– 25 Marks Students will answer a Structured Long Answer Question (LAQ) designed to assess their comprehensive understanding role of diet, topical and systemic therapeutics and regimenal therapies in dermatological ailments 2. Presentation – 25 Marks Students will deliver a Presentation on the given topic. Assessment will be based on the following criteria: Content and Understanding (5 Marks) Clarity and Organization (5 Marks) Use of Visual Aids (5 Marks) Delivery and Communication (5 Marks) Engagement and Response to Questions (5 Marks) 3. Oral Viva – 15 Marks Evaluate understanding of role of diet, topical and systemic therapeutics and regimenal therapies in dermatological ailments 4. Quiz – 10 Marks 10 questions (1 mark each) covering key concepts, dermatologic clinical conditions and recommended diet and treatment for various skin diseases or Any practical in converted form can be taken for assessment (40) and any experiential such as portfolios/reflections/presentations can be taken as an assessment (35)	6

Table 4 : Practical Training Activity

(*Refer table 3 of similar activity number)

Practical No*	Practical name	Hours
1.1	Congenital skin disorders	2
1.2	Stages of skin development	2
1.3	Stages of Glandular tissue development	2
1.4	Temperamental imbalance and glandular dysfunction	2
1.5	Stages of Nail development	2
1.6	Nail abnormalities due to embryonic dysfunction	2
1.7	Hair follicle development	2
1.8	Effect of temperament and humours on hair colour development	2
1.9	Stem cell sources	2
1.10	Skin stem cell defferentiation	2
2.1	Dermal-Epidermal Junction	1
2.2	Cutaneous vasculature	1
2.3	physiology of Sebaceous glands.	2
2.4	Factors regulating sebaceous gland size and sebum production.	1
2.5	Anatomy of Sweat gland	2
2.6	Mechanism of sweat secretion	1
2.7	Anatomy and physiology of hair	2
2.8	Process of vitamin D synthesis	1
2.9	Role of immune cells of the skin	2
2.10	Dermatological disorders and skin microbiome	2

2.11	Dermatome demostration	2
2.12	Dermatome demonstration	1
2.13	Anatomy and physiology of Nails	2
3.1	Common allergens	2
3.2	Mechanism of Type-1 Hypersenstivity	2
3.3	Mechanism of Type-2 hypersenstivity	2
3.4	Mechanism of Type-3 Hypersenstivity	2
3.5	Mechanism of type-4 Hypersenstivity	2
4.1	UV rays- sources and benefits	2
4.2	UV rays and VIt D synthesis	1
4.3	Mechanism of photochemical reactions.	2
4.4	Cutaneous response to visible and infra red radiation	1
4.5	UV-B induced inflammation mechanism	2
4.6	Substances causing Photosensitization	2
5.1	Techniques for wound assessment	2
5.2	Innovative approaches for wound regeneration	2
5.3	Methods of wound healing	2
5.4	Cellular and molecular events of wound healing	2
5.5	Factors affecting wound healing	2
6.1	Ethics in clinical practice of dermatology	1
6.2	Medical history taking	4
6.3	A clinical approach to skin examination	5
6.4	Identification of primary, secondary and specific skin lesions	5

6.5	Clinical scoring system in dermatology	5
7.1	Role of reactive units of skin	4
7.2	Epidermal reaction patterns	4
7.3	The patterns of inflammatory skin diseases	2
8.1	Mu’aina Nabz, Baul wa Baraz	4
8.2	Wood's lamp examination	5
8.3	Dermatoscopy and trichoscopy	3
8.4	Procedure of histological staining	3
8.5	Patch test and prick test	2
8.6	ELISA, Western blot test, PCR and IP	5
8.7	Histology of cutaneous lesions	4
8.8	Fungal culture	4
9.1	Disease-specific dietary chart	5
9.2	Application of Hijamah	5
9.3	Procedure of Irsal –i- Alaq	5
9.4	Cauterization in dermatology	5
9.5	Telemedicine in dermatology	4
9.6	Photodynamic therapy	3
9.7	Procedure of stem cell therapy	3

Table 5 : Experiential learning Activity

(*Refer table 3 of similar activity number)

Experiential learning No*	Experiential name	Hours
1.1	Classical unani concept and modern embryology	2
1.2	Embryonic development and skin abnormalities	2
1.3	Embryology in dermatological practice	2
1.4	Hormones and skin gland	1
1.5	Embryonic development of glandular tissue and congenital skin disorders	1
1.6	Emotional and physical challenges in glandular disorders	2
1.7	Skin health and glandular development	1
1.8	Maternal health and Nail development	1
1.9	Envirenmental factors and Nail development	2
1.10	Congenital nail disorders awareness	2
1.11	Mechanism of Hair follicle formation	2
1.12	Unani concept of Hair development	3
1.13	Stem cells in Regenerative Medicine	3
1.14	Review of literature on stem cells in dermatology	2
2.1	composition of function of subcutis	2
2.2	Basement membrane	1
2.3	Sebaceous gland health and quality of life	2
2.4	sweat gland disorders and quality of life	2
2.5	Hair cycle	2

2.6	Impact of mizaj and Akhlat on hair structure and color	2
2.7	Melenogenesis	2
2.8	Asbabe sitta zarooriya and skin homeostasis	2
2.9	Genomic studies on skin bacterial and fungal communities	2
2.10	genomic studies on skin viral cmmunities	2
2.11	Importance of Dermatomes	2
2.12	Skin disease due to dermatome involvement	2
2.13	Life style and nail health	3
3.1	Effect of temperament on hypersenstivity and allergy	2
3.2	Prevention of Type-1 hypersentivity reaction	2
3.3	Type-2 Hypersenstivity disorders	3
3.4	Type-3 Hypersenstivity disorders	3
3.5	Type-4 Hypersenstivity disorders	2
3.6	Type- 4 Hypersenstivity management	1
4.1	Sun safety against UV rays	2
4.2	UV rays protection stratigies.	2
4.3	UV light and cutaneous immune system	2
4.4	Photochemical damage and skin,s natural defence.	2
4.5	Photosensitization - factors , sign and symptoms	3
4.6	Strategies to reduce photosensitization	2
5.1	Cutaneous wound assessment	3
5.2	Wound regeneration	3
5.3	Journal Club	3

5.4	Importance of hemostasis in wound healing	2
5.5	Wound healing factors	2
6.1	Ethical violations in clinical research	2
6.2	Ethical issues in teledermatology	2
6.3	The art of clinical history taking	3
6.4	Case history taking skills	5
6.5	Physical examination of skin	5
6.6	Diagnosis of primary, secondary and specific skin lesions	5
6.7	Psoriasis Area Severity Index (PASI) determination	1
6.8	Vitiligo Area Severity Index (VASI) measuremnt	1
6.9	Melasma Area Severity Index (MASI) assessment	1
6.10	Dermatology Life Quality Index (DLQI) Assessment	1
7.1	Morphological patterns of inflammatory dermatoses	5
7.2	Dermal reaction patterns	5
7.3	Clinical manifestations of skin diseases	3
8.1	Assessment of temperament of the skin lesion	5
8.2	Wood's lamp examination	5
8.3	Dermatoscopy and Diascopy	4
8.4	Patch test and prick test	3
8.5	Histopathological findings in dermatology	2
8.6	Enzyme linked immunoassay (ELISA), Western blot test, polymerase chain reaction (PCR), immunofluorescence and immunoperoxidase test (IP)	5
8.7	Histological images of different dermatological specimens	5
8.8	Direct microscopy and culture report	5

8.9	Critical appraisal of published research	5
9.1	The role of nutrition on skin	4
9.2	Manifestations of food allergy on skin	5
9.3	Regimenal therapies in dermatology	5
9.4	Application of Taqsheer	5
9.5	Journal Club	5
9.6	Safety and efficacy of stem cell therapy	5
9.7	Phototherapy in dermatology	5
9.8	Critical appraisal of published literature	5

Table 6 : Assessment Summary: Assessment is subdivided in A to H points
6 A : Number of Papers and Marks Distribution

Subject Code	Paper	Theory	Practical	Total
UNIPG-AB-AJT	1	100	200	300

6 B : Scheme of Assessment (Formative and Summative Assessment)

Credit frame work

UNIPG-AB-AJT consists of 9 modules totaling 16 credits, which correspond to 480 Notional Learning Hours. Each credit comprises 30 Hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

Formative Assessment : Module wise Assessment:will be done at the end of each module. Evaluation includes learners active participation to get Credits and Marks. Each Module may contain one or more credits.

Summative Assessment: Summative Assessment (University examination) will be carried out at the end of Semester II.

6 C : Calculation Method for Modular Grade Points (MGP)

Module Number & Name (a)	Credits (b)	Actual No. of Notional Learning Hours (c)	Attended Number of notional Learning hours (d)	Maximum Marks of assessment of modules (e)	Obtained Marks per module (f)	MGP =d*f/c*e*100
M1. جلد اور اس کے زوائد کا جنینی ارتقاء Jild aur uske Zawā'id ka Janinī Irtiqā (Embryonic development of skin & its appendages)	2	60		50		
M2. جلد اور اسکے متعلقات کی اطلاقی تشریح و منافع Jild aur uske Muta'lliqāt ki ltlāqī Tashrīh wa Manāfe (Applied anatomy and physiology of skin and its appendages)	2	60		50		
M3. زود حساسیت والرجی Zūd Hassāsiyat wa Allergy (Hypersensitivity & allergy)	1	30		25		
M4. جلد کی شعاعی حیاتیات Jild ki Shu'āyi Hayātiyāt (Photobiology of skin)	1	30		25		
M5. اندمال زخم Indimāl-i Zakhm (Wound healing)	1	30		25		
M6. امراض جلد کے مریضوں تک طبی و تشخیصی رسائی Amrāz-i Jild ke Marīzon tak Tibbi wa Tashkhīsī Rasāy'i (Approach to the patient with skin diseases)	2	60		50		
M7. جلدی ماہیت المرضی Jildi Mahiyatul Marazi (Dermatopathology)	1	30		25		
M8. تشخیصات امراض جلد Tashkeesāt-i Amraze Jild (Diagnostic dermatology)	3	90		75		
M9. اصول علاج و طریقہ ہائے علاج Usūl-i Ilāj wa Tarīqahā'y Ilāj (Principles of treatment and modalities)	3	90		75		
MGP = ((Number of Notional learning hours attended in a module) X (Marks obtained in the modular assessment) / (Total number of Notional learning hours in the module) X (Maximum marks of the module)) X 100						

6 D : Semester Evaluation Methods for Semester Grade Point Average (SGPA)

SGPA will be calculated at the end of the semester as an average of all Module MGPs. Average of MGPS of the Semester For becoming eligible for Summative assessment of the semester, student should get minimum of 60% of SGPA

SGPA = Average of MGP of all modules of all papers = add all MGPs in the semester/ no. of modules in the semester Evaluation Methods for Modular Assessment

A S.No	B Module number and Name	C MGP
1	M1.جلداوراس کے زوائد کاجنینی ارتقاءJild aur uske Zawā'id ka Janinī Irtiqā (Embryonic development of skin & its appendages)	C 1
2	M2. جلداوراسکےمتعلقات کی اطلاقی تشریح ومنافعJild aur uske Muta'lliqāt ki Itlāqī Tashrīh wa Manāfe (Applied anatomy and physiology of skin and its appendages)	C 2
3	M3.زود حساسیت والرجیZūd Hassāsiyat wa Allergy (Hypersensitivity & allergy)	C 3
4	M4.جلد کی شعاعی حیاتیاتJild ki Shu'āyi Hayātiyāt (Photobiology of skin)	C 4
5	M5. اندمال زخمIndimāl-i Zakhm (Wound healing)	C 5
6	M6.امراض جلد کے مریضون تک طبی و تشخیصی رسائیAmrāz-i Jild ke Marīzon tak Tibbi wa Tashkhīsī Rasāy'i (Approach to the patient with skin diseases)	C 6
7	M7.جلدی ماہیت المرضیJildi Mahiyatul Marazi (Dermatopathology)	C 7
8	M8.تشخیصات امراض جلدTashkeesāt-i Amraze Jild (Diagnostic dermatology)	C 8
9	M9.اصول علاج وطریقہ ہائے علاجUsūl-i Ilāj wa Tarīqahā'y Ilāj (Principles of treatment and modalities)	C 9
	Semester Grade point Average (SGPA)	(C1+C2+C3+C4+C5+C6+C7+C8+C9) / Number of modules(9)

S. No	Evaluation Methods
1.	Method explained in the Assessment of the module or similar to the objectives of the module.

6 E : Question Paper Pattern

MD/MS Unani Examination
UNIPG-AB-AJT
Sem II
Time: 3 Hours ,**Maximum Marks:** 100
INSTRUCTIONS: All questions compulsory

		Number of Questions	Marks per question	Total Marks
Q 1	Application-based Questions (ABQ)	1	20	20
Q 2	Short answer questions (SAQ)	8	5	40
Q 3	Analytical based structured Long answer question (LAQ)	4	10	40
				100

6 F : Distribution for summative assessment (University examination)

S.No	List of Module/Unit	ABQ	SAQ	LAQ
(M- 1) جلد اور اس کے زوائد کا جنینی ارتقاء Jild aur uske Zawā'id ka Janinī Irtiqā (Embryonic development of skin & its appendages) (Marks: Range 5-20)				
1	**(U-1)** جلد کی جنینی نشونما Jild ki Janinī Nashonumā (Embryonic development of skin)	No	Yes	Yes
2	**(U-2)** نسیج غدد کی جنینی نشونما Nasīj-i Ghudadi ki Janinī Nashonumā (Embryonic development of glandular tissue)	No	Yes	Yes
3	**(U-3)** اظفار کی جنینی نشونما Azfār ki Janinī Nashonumā (Embryonic development of nail)	No	Yes	Yes
4	**(U-4)** بالوں کی جنینی نشونما Bālon ki Janinī Nashonumā (Embryonic development of hair)	Yes	Yes	Yes
5	**(U-5)** جلد کے خلیات اساسی Jild ke Khaliyāt-i Asāsī (Stem cells of skin)	No	Yes	Yes
(M- 2) جلد اور اسکے متعلقات کی اطلاقی تشریح و منافع Jild aur uske Muta'lliqāt ki Itlāqī Tashrīh wa Manāfe (Applied anatomy and physiology of skin and its appendages) (Marks: Range 5-20)				
1	**(U-1)** جلد کے افعال و خوردبینی ساخت Jild ke Af'āl wa Khurdbīnī Sākht (Ultra-structure & function of Skin)	Yes	Yes	Yes
2	**(U-2)** غدد دہنیہ کے افعال و خوردبینی ساخت Ghudad-i Duhniyyā ke Af'āl wa Khurdbīnī Sākht (Ultra-structure & function of sebaceous gland)	Yes	Yes	Yes
3	**(U-3)** غدد عرقیہ کے افعال و خوردبینی ساخت Ghudad-i 'Araqiyyā ke Af'āl Wa Khurdbīnī Sākht (Ultra-structure & function of sweat glands)	Yes	Yes	Yes
4	**(U-4)** بالوں کے افعال و خوردبینی ساخت Bālon ke Af'āl wa Khurdbīnī Sākht (Ultra-structure & function of hair)	Yes	Yes	Yes
5	**(U-5)** جلد کے افعال مخصوصہ Jild ke Af'āl-i Makhsūsā (Specific Functions of skin)	No	Yes	Yes
6	**(U-6)** جلدی نباتات صغری Jildi Nabātāt-i Sughrā (Microflora of skin)	No	Yes	Yes
7	**(U-7)** خطہ جاتِ جلد Khittājāt-i Jild (Dermatomes)	Yes	Yes	No
8	**(U-8)** ناخون کے افعال و خوردبینی ساخت Nākhūn ke Af'āl wa Khurdbīnī Sākht (Ultra-structure & function of Nail)	Yes	Yes	Yes

(M- 3) زود حساسیت والرجی Zūd Hassāsiyat wa Allergy (Hypersensitivity & allergy) (Marks: Range 5-20)				
1	**(U-1)** زود حساسیت والرجی کا عمومی جائزہ Zūd Hassāsiyat wa Allergy ka ʻUmūmī Jāyiʼzā (Overview of Hypersensitivity & Allergy)	Yes	Yes	Yes
2	**(U-2)** زود حساسیت قسم اول Zūd Hassāsiyat Qism Awwal (Type 1 Hypersensitivity)	No	Yes	No
3	**(U-3)** زود حساسیت قسم دوم Zūd Hassāsiyat Qism Dom (Type 2 Hypersensitivity)	No	Yes	No
4	**(U-4)** زود حساسیت قسم سوم Zūd Hassāsiyat Qism Som (Type 3 Hypersensitivity)	Yes	Yes	Yes
5	**(U-5)** زود حساسیت قسم چہارم Zuūd Hassāsiyat Qism Chahārum (Type 4 Hypersensitivity)	No	Yes	No
(M- 4) جلد کی شعاعی حیاتیات Jild ki Shuʻāyi Hayātiyāt (Photobiology of skin) (Marks: Range 5-20)				
1	**(U-1)** الٹراوائلٹ اور مرئی اشعاع۔ذرائع وجلدی انجذاب Ultraviolet aur Maraʼi Ishʻā-Zarāʼiʻ wa Jildi Injizāb (Ultraviolet and visible radiation- source and absorption in the Skin)	Yes	Yes	Yes
2	**(U-2)** جلد پر ظاہر ہونے والے فوٹو کیمیکل ردعمل Jild par Zāhir hone wāle Photochemical Radd-i ʻAmal (Photochemical reactions leading to skin responses)	No	Yes	Yes
3	**(U-3)** شعاعی حساسیت Shuʻāyi Hassāsiyat (Photosensitization)	No	Yes	Yes
(M- 5) اندمال زخم Indimāl-i Zakhm (Wound healing) (Marks: Range 5-20)				
1	**(U-1)** قرحات جلد کا میکانیہ Qarhāt-i Jild ka Mikāniyyā (Mechanism of cutaneous wound healing)	Yes	Yes	Yes
2	**(U-2)** قرحات کی تخلیق نو و مرمت Qarhāt ki Takhlīq-i Nav wa Marammat (Wound regeneration and repair)	Yes	Yes	Yes
3	**(U-3)** ابتدائی و ثانوی طریقہ اندمال Ibtidāyi wa Sānwi Tariqaʼ-i Indimāl (Healing by primary and secondary intention)	Yes	Yes	Yes
4	**(U-4)** اندمال کے مراحل Indimāl ke Marāhil (Phases of wound healing)	Yes	Yes	Yes
5	**(U-5)** اندمال کو متاثر کرنے والے عوامل Indimāl ko Mutaʼssir karne wale Awāmil (Factors affecting wound healing)	Yes	Yes	Yes
(M- 6) امراض جلد کے مریضوں تک طبی و تشخیصی رسائی Amrāz-i Jild ke Marīzon tak Tibbi wa Tashkhīsī Rasāyʼi (Approach to the patient with skin diseases) (Marks: Range 5-20)				
1	**(U-1)** معالجات جلد میں اخلاقی پہلو Moālajāt-i Jild mein Akhlāqī Pahlū (Ethical Consideration in Dermatological Practice)	Yes	Yes	Yes
2	**(U-2)** رودادطبی Rūdād-i Tibbi (Medical History taking)	Yes	Yes	Yes
3	**(U-3)** جلد کا جسمانی معائنہ Jild ka Jismānī Muʻāʼina (Physical examination of Skin)	Yes	Yes	Yes
4	**(U-4)** اصابات جلد Isābāt-i Jild skin lesions	Yes	Yes	Yes
5	**(U-5)** امراض جلد میں مستعمل پیمائش کے عام میزان و مقیاس Amrāz-i Jild mein Mustaʻmal Paymaʼish ke ʿĀm Mīzān wa Miqyās (Common assessment scales and clinical scoring system)	Yes	Yes	Yes
(M- 7) جلدی ماہیت المرضی Jildi Mahiyatul Marazi (Dermatopathology) (Marks: Range 5-20)				
1	**(U-1)** نسیجی ردعمل کی بڑی شکلیں Nasīji Radd-i ʻAmal ki Badi Shaklein (Major tissue reaction patterns)	Yes	Yes	Yes

2	(U-2) نسیجی ردعمل کی چھوٹی تشکلیں Nasīji Radd-i ‘Amal ki Choti Shaklein (Minor tissue reaction patterns)	Yes	Yes	Yes
3	(U-3) التہاب جلد کی اہم صورتیں Iltihāb-i Jild ki Aham Sūratein (Patterns of Dermatological Inflammation)	Yes	Yes	Yes
(M- 8) تشخیصات امراض جلد Tashkeesāt-i Amraze Jild (Diagnostic dermatology) (Marks: Range 5-20)				
1	(U-1) معائنہ نبض، بول و براز و اصابات جلد برائے تشخیص امراض جلد Mu‘āina-i Nabz, Bawl wa Barāz wa Isābāt-i jild barā’y Tashkīs-i Amrāz-i Jild (Mu’aina Nabz, Baul wa Baraz Isābāt-i jild for diagnosis of skin diseases)	Yes	Yes	Yes
2	(U-2) تشخیصی عملیات۔۱ Tashkhisi Amaliyāt-1 (Diagnostic Procedures-1)	Yes	Yes	Yes
3	(U-3) تشخیصی عملیات۔۲ Tashkhisi Amaliyāt-2 (Diagnostic Procedures-2)	Yes	Yes	Yes
4	(U-4) تشخیصی عملیات۔۳ Tashkhisi Amaliyāt-3 (Diagnostic Procedures-3)	Yes	Yes	Yes
5	(U-5) اخزاع Ikhteza' (Biopsy)	Yes	Yes	Yes
6	(U-6) مائیکولوجیکل اور دیگر تصیشی امتحانات Mycological aur dīgar Taftīshī Imtīhānāt Mycological & other tests	Yes	Yes	Yes
(M- 9) اصول علاج و طریقہ ہائے علاج Usūl-i Ilāj wa Tarīqahā’y Ilāj (Principles of treatment and modalities) (Marks: Range 5-20)				
1	(U-1) غذائیات Ghiza’iyāt (Dietetics)	Yes	Yes	Yes
2	(U-2) جلدی علاج بالتدبیر Jildi Ilāj bit Tadbeer (Regimenal therapies related to skin)	Yes	Yes	Yes
3	(U-3) جلدی طریقہ ہائے علاج Jildi Tarīqahā’y Ilāj (Dermato-therapeutics)	Yes	Yes	Yes

6 G : Instruction for the paper setting & Blue Print for Summative assessment (University Examination)

Instructions for the paper setting.

1. 100 marks question paper shall contain:-
• Application Based Question: 1 No (carries 20 marks)
• Short Answer Questions: 8 Nos (each question carries 05 marks)
• Long Answer Questions: 4 Nos (each question carries 10 marks)
2. Questions should be drawn based on the table 6F.
3. Marks assigned for the module in 6F should be considered as the maximum marks. No question shall be asked beyond the maximum marks.
4. Refer table 6F before setting the questions. Questions should not be framed on the particular unit if indicated “NO”.
5. There will be a single application-based question (ABQ) worth 20 marks. No other questions should be asked from the same module where the ABQ is framed.
6. Except the module on which ABQ is framed, at least one Short Answer Question should be framed from each module.
7. Long Answer Question should be analytical based structured questions assessing the higher cognitive ability.
8. Use the Blueprint provided in 6G or similar Blueprint created based on instructions 1 to 7

Blueprint

Question No	Type of Question	Question Paper Format
Q1	**Application based Questions** 1 Question 20 marks All compulsory	M1.U4 **Or** M2.U1 **Or** M2.U2 **Or** M2.U3 **Or** M2.U4 **Or** M2.U7 **Or** M2.U8 **Or** M3.U1 **Or** M3.U4 **Or** M4.U1 **Or** M5.U1 **Or** M5.U2 **Or** M5.U3 **Or** M5.U4 **Or** M5.U5 **Or** M6.U1 **Or** M6.U2 **Or** M6.U3 **Or** M6.U4 **Or** M6.U5 **Or** M7.U1 **Or** M7.U2 **Or** M7.U3 **Or** M8.U1 **Or** M8.U2 **Or** M8.U3 **Or** M8.U4 **Or** M8.U5 **Or** M8.U6 **Or** M9.U1 **Or** M9.U2 **Or** M9.U3
Q2	**Short answer Questions** Eight Questions 5 Marks Each All compulsory	1. M1.U2 **Or** . M1.U3 **Or** . M1.U4 **Or** . M1.U5 **Or** . M1.U1 **Or** . M3.U1 2. M2.U1 **Or** . M2.U2 **Or** . M2.U3 **Or** . M2.U4 **Or** . M2.U5 **Or** . M2.U6 3. M3.U2 **Or** . M3.U3 **Or** . M3.U4 **Or** . M3.U1 4. M4.U1 **Or** . M4.U2 **Or** . M4.U3 5. M5.U1 **Or** . M5.U2 **Or** . M5.U3 **Or** . M5.U4 **Or** . M5.U5 6. M6.U1 **Or** . M6.U2 **Or** . M6.U3 **Or** . M6.U4 **Or** . M6.U5 7. M7.U1 **Or** . M7.U2 **Or** . M7.U3 **Or** . M2.U7 8. M8.U1 **Or** . M8.U2 **Or** . M8.U3 **Or** . M8.U4 **Or** . M8.U5 **Or** . M9.U1 **Or** . M9.U2 **Or** . M9.U3 **Or** . M2.U8
Q3	**Analytical Based Structured Long answer Questions** Four Questions 10 marks each All compulsory	1. M1.U1 **Or** . M2.U1 **Or** . M4.U1 **Or** . M1.U1 2. M3.U1 **Or** . M3.U4 **Or** . M2.U2 **Or** . M4.U2 **Or** . M1.U2 3. M5.U1 **Or** . M5.U2 **Or** . M5.U3 **Or** . M5.U4 **Or** . M5.U5 **Or** . M6.U1 **Or** . M6.U2 **Or** . M6.U3 **Or** . M6.U4 **Or** . M6.U5 **Or** . M2.U3 **Or** . M4.U3 **Or** . M1.U3 4. M7.U1 **Or** . M7.U2 **Or** . M7.U3 **Or** . M8.U1 **Or** . M8.U2 **Or** . M8.U3 **Or** . M8.U4 **Or** . M8.U5 **Or** . M8.U6 **Or** . M9.U1 **Or** . M9.U2 **Or** . M9.U3 **Or** . M2.U4 **Or** . M2.U5 **Or** . M2.U6 **Or** . M1.U4 **Or** . M1.U5

6 H : Distribution of Practical Exam (University Examination)

S.No	Heads	Marks
1	**Major Practical: Long Case Evaluation of the Given Patient** **The candidate will conduct a comprehensive evaluation of an assigned patient. The assessment will be based on the following criteria:** 1. Detailed History Taking (10 marks) 2. General and Systemic Physical Examination (10 marks) 3. Specific Examination of Skin (20 marks 4. Differential Diagnosis (10 marks) 5. Provisional and Final Diagnosis (5 marks) 6. Relevant Investigations (05 marks) 7. Management Plan (20 marks)	80
2	Minor Practicals: 1. Spotter (20 Marks): Identification of 10 instruments (e.g., Woods Lamp, Derma Roller, Autoclave, Laser, Cautery, etc.). Each carries 2 marks. 2. Diagnostic Procedure (20 Marks): One procedure from options like Biopsy, Woods Lamp, Dermoscopy, Patch Test, Electron Microscopy, etc. 3. Therapeutic Procedure (20 Marks): One procedure from options like Chemical Peel, Dermabrasion, Cautery, Leeching, Hijamah, etc.	60
3	Viva: 1. Internal Examiner: 20 Marks 2. External Examniner: 20 Marks	40
4	Log Book (Activity Record)	10
5	Practical Record (10)	10
Total Marks		**200**

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Abbreviations

Domain		T L Method		Level	
CK	Cognitive/Knowledge	L	Lecture	K	Know
CC	Cognitive/Comprehension	L&PPT	Lecture with PowerPoint presentation	KH	Knows how
CAP	Cognitive/Application	L&GD	Lecture & Group Discussion	SH	Shows how
CAN	Cognitive/Analysis	L_VC	Lecture with Video clips	D	Does
CS	Cognitive/Synthesis	REC	Recitation		
CE	Cognitive/Evaluation	SY	Symposium		
PSY-SET	Psychomotor/Set	TUT	Tutorial		
PSY-GUD	Psychomotor/Guided response	DIS	Discussions		
PSY-MEC	Psychomotor/Mechanism	BS	Brainstorming		
PSY-ADT	Psychomotor Adaptation	IBL	Inquiry-Based Learning		
PSY-ORG	Psychomotor/Origination	PBL	Problem-Based Learning		
AFT-REC	Affective/ Receiving	CBL	Case-Based Learning		
AFT-RES	Affective/Responding	PrBL	Project-Based Learning		
AFT-VAL	Affective/Valuing	TBL	Team-Based Learning		
AFT-SET	Affective/Organization	TPW	Team Project Work		
AFT-CHR	Affective/ characterization	FC	Flipped Classroom		
		BL	Blended Learning		
		EDU	Edutainment		
		ML	Mobile Learning		
		ECE	Early Clinical Exposure		
		SIM	Simulation		
		RP	Role Plays		
		SDL	Self-directed learning		
		PSM	Problem-Solving Method		
		KL	Kinaesthetic Learning		
		W	Workshops		
		GBL	Game-Based Learning		
		LS	Library Session		
		PL	Peer Learning		
		RLE	Real-Life Experience		

		PER	Presentations		
		D-M	Demonstration on Model		
		PT	Practical		
		X-Ray	X-ray Identification		
		CD	Case Diagnosis		
		LRI	Lab Report Interpretation		
		DA	Drug Analysis		
		D	Demonstration		
		D-BED	Demonstration Bedside		
		DL	Demonstration Lab		
		DG	Demonstration Garden		
		FV	Field Visit		
		JC	Journal Club		
		Mnt	Mentoring		
		PAL	Peer Assisted Learning		
		C_L	Co Learning		