

# Dow University of Health Sciences



**REHABILITATION (PMR)**

**DERMATOLOGY/ PLASTIC SURGERY / BURNS (DPS)**

**GENETICS MODULE (GEN)**

**Fourth Year MBBS**

## 5 YEAR CURRICULAR ORGANIZATION

Spiral	year	Modules				
First Spiral	I	<b>FND1- Foundation</b> Cell, Genetics & Cell Death (Basics of Anatomy, Physiology, Biochemistry, Gen. Pathology, Gen. Pharmacology, Community Medicine & Behavioral Sciences,  <b>9 Weeks</b>		<b>HEM1- Blood Module</b> Immunity, Inflammation, Tissue repair, Antimicrobials & Neoplasia <b>9Week</b>		
		<b>LCM1- Locomotion</b> Bones, Joints, Nerves & Muscles, 9weeks		<b>RSP1- Respiratory System</b> 6 weeks	<b>CVS1- Cardiovascular System</b> 4 weeks	
	II	<b>NEU1- Nervous System</b> 8 weeks		<b>HNN1- Head &amp; Neck &amp; Special</b> 6 weeks	<b>END1- Endocrinology</b> 5weeks	
		<b>GIL 1-GIT and Liver</b> 8 weeks		<b>EXC1- Renal and Excretory System</b> 5 weeks	<b>REP1- Reproductive System</b> 5 weeks	
Second Spiral	III	<b>IDD 1- Infectious diseases</b> 5 weeks	<b>HEM2- Hematology</b> 5 weeks		<b>RSP2- Respiratory System</b> 5 weeks	<b>CVS2- Cardiovascular System</b> 5 weeks
		<b>GIL 2-GIT and Liver (including Nutritional Disorders)</b> 8weeks		<b>EXC2- Renal &amp; Excretory System</b> 5 weeks	<b>END2- Endocrinology</b> 5 weeks	
	IV	<b>ORT2- Orthopedics, Rheumatology, Trauma</b> 7 weeks		<b>REP2- Reproductive System</b> 8 Weeks	<b>PMR-Physical Medicine &amp; Rehabilitation</b> <b>DPS-Dermatology Plastic Surgery / Burns</b> <b>GEN-Genetics</b> 6 weeks	
		<b>NEU2- Neurosciences and Psychiatry</b> 8 weeks		<b>OPH / ENT*</b> 4 weeks	<b>ENT/OPH *</b> 4 weeks	
Third Spiral	V	Clinical Rotation 9:30 to 3:00 (with Ambulatory, Emergency, Intensive care) In Medicine, Pediatrics, Cardiology and Neurology units <ul style="list-style-type: none"> <li>▪ Lecture on problem based approach, twice a week</li> <li>▪ Ward tutorial twice a week</li> <li>▪ Student research presentation once a week</li> </ul>		Clinical Rotation 9:30 to 3:00 (Inpatient, Ambulatory, Emergency, Intensive care and Operation Theatres) In Surgery, Gynecology & Obstetrics, Orthopedics and Neurosurgery. <ul style="list-style-type: none"> <li>▪ Lecture on problem based approach, twice a week</li> <li>▪ Ward tutorial twice a week</li> <li>▪ Student research presentation once a week</li> </ul>		

## RATIONALE

Undergraduate medical education has traditionally focused on curative approaches to acute illnesses and injuries. Rehabilitation is the process of helping a person to reach the fullest physical, psychological, social, vocational, vocational, and educational potential consistent with his or her physiologic or anatomic impairment, environmental limitations, desires and life plans. This rehabilitation module provides the basic understanding of physical therapy, occupational therapy and rehabilitation of patients along with the social and psychological barriers faced by the disabled persons and the ways to overcome these.

Skin is the largest organ of the body. Its exposed position makes it susceptible to a large number of disorders which include allergic conditions, infections, tumors and involvement in metabolic disorders. Some of these require surgical management. In this dermatology and Plastic surgery module the student shall gain the understanding of skin diseases, their clinical presentation, diagnosis and their management. The student shall also learn about the surgical aspects in the Plastic surgery component.

## MOULE OBJECTIVES

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

### **REHABILITATION:**

- Describe the concept of rehabilitation medicine
- Define and distinguish between impairment, disability and handicap
- Describe the goal of rehabilitative functional evaluation is to restore handicapped people to fullest possible physical, mental, social & economic independence
- Diagnose, assess and prevent disabilities
- Discuss the rehabilitative management of stroke
- Enlist active range of motion exercises
- Conditioning exercises of non-amputee extremities. Muscle strengthening of bilateral upper & lower limbs
- Explain the role of assistive technology in rehabilitation medicine
- Perform Rehabilitation counseling of patients
- Replace parts lost by injury or missing from birth or to supplement defective lower body parts

- Perform the attachment of body segment to improve function by controlling motion, providing support through stabilizing gait
- Explain the postural education to Avoid immobility, care of fragile skeleton. Discuss the Management of Dietary measures and Prevention of fall application of Orthotics
- Formulate the rehab management of common neurological, musculoskeletal and cardiac problems.

## **DERMATOLOGY**

After completion of MBBS course the student should be able to:

- Recognize the clinical presentations of common Skin diseases in the community.
- Diagnose these diseases on the basis of history, examination and clinical investigations.
- Identify the preventive measures for counseling their patients.
- Practice basic principles of management of common disease and make appropriate referral.
- Recognize of the prognosis to counsel their patients.
- Be aware of the specific diagnostic tools for Skin diseases, and their interpretation.

## **PLASTIC SURGERY/BURNS**

Medical graduates after completion of five years training program should be able to:

- Enlist the type of skin and its behavior after injuries like pigmentation, hypertrophic scar and Keloid.
- Enumerate the relevant investigation in a given scenario including blood investigations, relevant X-ray, Echo, CT and MRI scan.
- Diagnose the type of wound and its management.
- Enlist the different skin lesion and tumor and its management on the basis of local and regional flaps.
- Discuss the axial pattern flap for distant area coverage.
- Explain the biological and artificial skin for coverage.
- Describe the acute burn care.
- Discuss how the graft applied

## MODULE CONTENTS

### REHABILITATION

#### Rehabilitation:

- PMR 2 Pmr 1    **Rehab Medicine + Impairment, Disability, Handicap**
- PMR 2 Pmr 2    **Evaluation Rehabilitation**
- PMR 2 Pmr 3    **Prosthesis Lower Extremity**
- PMR 2 Pmr 4    **Prosthesis upper Extremity**
- PMR 2 Pmr 5    **Orthoses (Upper Extremity & Lower Extremity**
- PMR 2 Pmr 6    **Management of amputee**
- PMR 2 Pmr 7    **Cardiac Rehabilitation**
- PMR 2 Pmr 8    **Musculoskeletal Rehabilitation**
- PMR 2 Pmr 9    **Cumulative trauma disorders**
- PMR 2 Pmr 10   **Peadiatric rehabilitation**

### ANATOMY

- DPS 2 Ana 1    **Appendages of skin**

### FORENSIC MEDICINE

- DPS 2 For 1    **Dermatological Manifestations in Cases of Various Poison**

### COMMUNITY MEDICINE

- DPS Com 1    **Scabies**

**DPS Com 2 Burns**

**PATHOLOGY**

- DPS 2 Pth 1 Acute and chronic inflammatory dermatosis**
- DPS 2 Pth 2 Bullous disorders (blistering disorders)**
- DPS 2 Pth 3 Disorders of pigmentation, vesicular diseases**
- DPS 2 Pth 4 Tumors of dermis and epidermis**
- GEN 2 Pth 5 Pathophysiology of Inheritance (Downs, Turner, Cystic Fibrosis, Thalassemia, Sickle Cell Anemia)**
- GEN 2 Pth 6 Inborn errors of metabolism**
- GEN 2 Pth 7 Genetic techniques (PCR, FISH, RFLP, BLOTTING**
- GEN 2 Pth 8 Prenatal Diagnosis**

**BIOCHEMISTRY**

- GEN 2 Bio 1 DNA, RNA, Transcription, Translation & Protein synthesis**
- GEN 2 Bio 2 Mode of Transmission/ Patterns of Inheritance**
- GEN 2 Bio 3 Single gene disorders**
- GEN 2 Bio 4 Multifactorial disorders**
- GEN 2 Bio 5 Population Genetics**
- GEN 2 Bio 6 Genetic and environmental interaction (Tutorial)**
- GEN 2 Bio 7 Cytogenetics Numerical and structural abnormalities of Chromosomes**

**DERMATOLOGY**

**DPS Derm 1**      **Basic Terminologies of Skin -Scabies/Pediculosis**

**DPS Derm 2**      **Bacterial Infections**

**DPS Derm 3**      **Eczema**

**DPS Derm 4**      **Fungal infection**

**DPS Derm 5**      **Lichen Planus**

## **BURNS**

**DPS Bur 1**      **Etiology, Pathophysiology of Burns**

**DPS Bur 2**      **Special types of Burns**

**DPS Bur 3**      **Management Of Burns, Shock and Burn Wounds**

## **PLASTIC SURGERY**

**DPS Pla 1**      **Skin Grafting and Skin Substitutes**

**DPS Pla 2**      **Flaps And Tissue Expander**

## **PHARMACOLOGY**

**DPS Pha 1**      **Antifungal Treatment**

**DPS Pha2**      **Treatment of psoriasis**

**DPS Pha 3**      **General Anaesthetics: Classification, mechanism and adverse reactions**

## **SURGERY**

**DPS Sur 1**      **Management of Skin Tumors**

## **MEDICINE**

**GEN Med 1**      **Gene therapy and counseling**

## **LEARNING OBJECTIVE OF SKILLS LAB CURRICULUM**

### **Dermatology/plastic surgery/burns Module:**

#### **Introduction to basic surgical skills**

##### **Introduction/Rational:**

Suturing is the most common method of wound closure, closing dead space, supporting and strengthening wounds until healing increases their tensile strength, approximating skin edges for an aesthetically pleasing and functional result, and minimizing the risks of bleeding and infection.

##### **Learning objectives**

On completion of this module, students will be able to:

- Demonstrate correct technique of handling of instruments
- Demonstrate correct method of reef knot tying and suturing



**ASSESSMENT PLAN**

**Renal-1 MODULE**

	WEIGHTAGE
ANNUAL EXAM	80%
MODULE EXAM (Internal Evaluation)	
Theory	10% (for module paper 20,20, 10 MCQs of Rehab, Derma and Genetics, respectively)
Practical	10%

**CONTACT HOURS (DISCIPLINE WISE)**

<b>Discipline</b>	<b>Contact Hours</b>
<b>Anatomy</b>	<b>1</b>
<b>Pathology</b>	<b>8</b>
<b>Pharmacology</b>	<b>3</b>
<b>Community Medicine</b>	<b>2</b>
<b>Dermatology</b>	<b>5</b>
<b>Biochemistry</b>	<b>7</b>
<b>General surgery</b>	<b>1</b>
<b>Burns</b>	<b>3</b>
<b>Forensic Medicine</b>	<b>1</b>
<b>Medicine</b>	<b>1</b>
<b>Plastic surgery</b>	<b>2</b>

## BOOKS

### ANATOMY

- **CLINICALLY ORIENTED ANATOMY**  
**KEITH.L.MOORE, Arthur F. Dalley, Anne M.R. Agur**  
**7<sup>th</sup> or Latest EDITION**
- **GRAY'S ANATOMY FOR STUDENTS**  
**Drake & Vogl & Mitchell**  
**3<sup>rd</sup> or Latest EDITION**
- **CLINICAL ANATOMY BY REGIONS (REFERENCE BOOK)**  
**Richard S. SNELL**  
**9<sup>th</sup> EDITION**
- **LAST'S ANATOMY: REGIONAL & APPLIED (REFERENCE BOOK)**  
**Chummy S. Sinnatamby**  
**12<sup>th</sup> or Latest EDITION**
- **ATLAS OF HUMAN ANATOMY**  
**FRANK H.NETTER**  
**6<sup>th</sup> EDITION**

### EMBRYOLOGY

- **LANGMAN'S MEDICAL EMBRYOLOGY**  
**T.W.SADLER**  
**13<sup>th</sup> EDITION**
- **THE DEVELOPING HUMAN CLINICALLY ORIENTED EMBRYOLOGY  
(REFERENCE BOOK)**  
**MOORE & PERSAUD & TORCHIA**  
**10<sup>th</sup> EDITION**

### HISTOLOGY

- **MEDICAL HISTOLOGY**

**LAIQ HUSSAIN SIDDIQUI**

**5<sup>TH</sup> or Latest EDITION**

- **WHEATERS FUNCTIONAL HISTOLOGY**  
**BARBARA YOUNG**  
**5<sup>th</sup> EDITION**
- **BASIC HISTOLOGY( TEXT AND ATLAS) (REFERENCE BOOK)**  
**LUIZ JUNQUEIRA, JOSE CARNEIRO**  
**11<sup>th</sup> or Latest EDITION**

## PHYSIOLOGY

- **GUYTON AND HALL TEXTBOOK OF MEDICAL PHYSIOLOGY**  
**GUYTON AND HALL**  
**13<sup>th</sup> EDITION**
- **GANONGS REVIEW OF MEDICAL PHYSIOLOGY**  
**25<sup>TH</sup> EDITION**

## BIOCHEMISTRY

- **LIPPINCOTT'S ILLUSTRATED REVIEWS SERIES**  
**DENISE R. FERRIER**  
**6<sup>th</sup> EDITION**
- **HARPERS ILLUSTRATED BIOCHEMISTRY (REFERENCE BOOK)**  
**VICTOR RODWELL, DAVID BENDER, KATHLEEN M. BOTHAM, PETER J. KENNELLY,**  
**P. ANTHONY WEIL**  
**28<sup>th</sup> EDITION**

## PATHOLOGY

- **ROBBINS BASIC PATHOLOGY**  
**KUMAR & ABBAS**  
**9<sup>TH</sup> EDITION**

- **ROBBINS & COTRAN PATHOLOGIC BASIS OF DISEASE (REFERENCE BOOK)**  
**KUMAR & ABBAS & ASTER**  
**9<sup>th</sup> EDITION**

## COMMUNITY MEDICINE

- **PUBLIC HEALTH AND COMMUNITY MEDICINE**  
**SHAH, ILYAS, ANSARI**  
**7<sup>th</sup> EDITION**

## PHARMACOLOGY

- **LIPPINCOTT'S ILLUSTRATED REVIEW PHARMACOLOGY**  
**KAREN WHALEN**  
**6<sup>th</sup> or Latest Edition**
- **BASIC AND CLINICAL PHARMACOLOGY (REFERENCE BOOK)**  
**BERTRAM G. KATZUNG**  
**11<sup>th</sup> EDITION**

## MICROBIOLOGY

- **REVIEW OF MEDICAL MICROBIOLOGY AND IMMUNOLOGY**  
**WARREN LEWINSON**  
**14<sup>th</sup> EDITION**

## MEDICINE & MEDICAL SPECIALTIES

- **PRINCIPLES & PRACTICE OF MEDICINE DAVIDSON'S**  
**22<sup>nd</sup> or Latest Edition**
- **ESSENTIALS OF KUMAR AND CLARK'S CLINICAL MEDICINE**  
**KUMAR & CLARK 9<sup>th</sup> or Latest Edition**
- **MACLEOD'S CLINICAL EXAMINATION DOUGLAS & NICOL & ROBERTSON**  
**13<sup>TH</sup> or Latest Edition**
- **HUTCHISON'S CLINICAL METHODS WILLIAM M DRAKE & MICHAEL GLYNN**  
**23<sup>rd</sup> or Latest Edition**

## SURGERY & SURGICAL SPECIALTIES

- **SHORT PRACTICE OF SURGERY ROBERT JOHN MCNEILL LOVE, HENRY HAMILTON BAILEY 26TH EDITION or Latest Edition**
- **CURRENT DIAGNOSIS AND TREATMENT SURGERY GERARD M. DOHERTY 14TH OR LATEST EDITION**
- **BROWSE'S INTRODUCTION TO THE SYMPTOMS & SIGNS OF**

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