



ರಾಜೀವ್ ಗಾಂಧಿ ಆರೋಗ್ಯ ವಿಜ್ಞಾನಗಳ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಕರ್ನಾಟಕ, ಬೆಂಗಳೂರು  
Rajiv Gandhi University of Health Sciences, Karnataka, Bangalore

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AUTH/ILAJBITTABDEER/047/2015-16

03/08/2015

**NOTIFICATION**

- Sub: Regulations and Curriculum of Mahire Tib (MD.Unani) Ilaj Bit Tabdeer  
Ref:1) Minutes of the meeting of Academic Council held on 28/05/2015.  
2) Minutes of 113<sup>th</sup> meeting of Syndicate held on 26/06/2015.

In exercise of the powers conferred by Section 35(2) of RGUHS Act 1994, the Syndicate in its 113<sup>th</sup> meeting held on 26/06/2015 is pleased to notify the curriculum for Mahire Tib (MD.Unani) Ilaj Bit Tabdeer as shown in annexure appended herewith.

This Ordinance shall be applicable for the students admitted during the academic year 2014-15 and onwards.

By Order,

  
REGISTRAR

To:  
The Principals of all Unani colleges affiliated to RGUHS.

Copy to:

1. The Principal Secretary to Governor, Governor's Secretariat, Raj Bhavan, Bangalore – 560 001.
2. Principal Secretary to Government, Health & Family Welfare Department, (Medical Education), Vikasa Soudha, Bangalore –560 001.
3. The Director, Department of Medical Education, Anand Rao Circle, Bangalore – 560 009.
4. PA to Vice-Chancellor / Registrar / Registrar (Eva.) / Finance Officer.
5. Director, Curriculum Development Cell.
6. The RGUHS Website
7. Guard File / Office Copy.

**Regulations and Curriculum  
Of  
Post Graduate Degree in Unani Medicine**

**Mahire Tib  
(M.D. Unani)**

**in**

**Ilaj Bit Tadbeer  
(Regiminal Therapy)**

## Goals and Objectives of the Course

### Goals

The Goals of the Postgraduate course in the Ilaj Bit Tadbeer is to train M.D. Unani graduate:

- To practice Ilaj Bit Tadbeer speciality efficiently and effectively backed by scientific knowledge and skill.
- Exercise empathy and caring attitude and maintain high ethical standards.
- Continue to evince keen interest in continuing professional education in the speciality and allied specialities irrespective of whether in teaching or practice (Matab).
- Willing to share the knowledge and skill with any learner, junior or a colleague.
- To develop faculty for critical analysis and evaluation of various concepts and views, to adopt the rational approach.

### Objectives

- The objective is to train a candidate so as to ensure higher competence in both general and special area of interest in the field of Ilaj Bit Tadbeer and prepare him / her for career in teaching, research and speciality practice. A candidate must have high degree of clinical proficiency in the subject matter and develop competence in research methodology as related to the field of Ilaj Bit Tadbeer.
- The objectives are stated as related to: Knowledge (cognitive domain), Skills (psycho motor domain), Human values, ethical practice and communication abilities (Affective Domain).
- At the end of training a candidate shall be able to:

### Knowledge

- Demonstrate understanding of basic sciences – USOOLE TIB relevant to speciality. Describe aetiology, patho-physiology, principles of diagnosis and management of common problems within the speciality in adults and children. Acquire adequate classical and advanced/ progressive knowledge. Identify social, economical, environmental and emotional determinants in a given case and take them into account for planning treatment and to refer to appropriate specialists. Update knowledge through self-study and by attending courses, conferences and seminars relevant to competence. Undertake audit, use information technology and carry out research in both basic and clinical sciences with the aim of publishing the work at various scientific journals.

## Skills

- Take a proper clinical history, examine the patient, perform essential diagnostic procedures and other relevant tests and interpret them to come to reasonable diagnosis about the condition (mizaj / sue mizaj / temperaments, akhlat / humours & marz / disease in the light of Unani Medicine).
- Acquire adequate skills and competence in performing various procedures as required.

## Human Values, Ethical Practice and Communication Abilities

- Adopt ethical principles in all aspects of practice.
- Foster professional honesty and integrity.
- Deliver patient care irrespective of social status, caste, creed or religion of the patient.
- Develop communication skills in particular skill to explain various options available in management and to obtain a true informed consent from the patient.
- Provide leadership and get best out of his/her team in a congenial working atmosphere.
- Apply high moral and ethical standards while carrying out human or animal research.
- Be humble and accept the limitations in his/her knowledge and skill and to ask for help from the colleagues when needed.

## Details of Teaching and Clinical exposure duration in hours

Subjects	Theory Hrs.	Clinical Hrs.
<b>Paper I</b> – Usool-e-Tahqeeqat-e-Ilaje Tadbeeri wa Hayati Shumariyat (Research Methodology and Biostatistics)	100	50
<b>Paper II</b> - Tashreeh wa Manafe-ul Aza (Anatomy & Physiology)	100	50
<b>Paper III</b> – Ilaj Bit Tadbeer-I (Ilaj Bit Tadbeer Umoomi)	100	50
<b>Paper IV</b> – Usoole Tashkhees wa Ilaj (Principles of Diagnosis and Treatment)	100	50

# Scheme of Examination

## Ilaj Bit Tadbeer

### First Year

No. of Papers	Name of the paper	Theory marks	Sub Total	Practical marks	Viva voce	Sub Total	Grand Total
Paper -I	Usool-e-Tahqeeqat-e-Ilaje Tadbeeri wa Hayati Shumariyat (Research Methodology and Biostatistics)	100	400	75	25	100	500
Paper – II	Tashreeh wa Manafe-ul Aza (Anatomy & Physiology)	100					
Paper – III	Ilaj Bit Tadbeer-I (Ilaj Bit Tadbeer Umoomi)	100					
Paper – IV	Usoole Tashkhees wa Ilaj (Principles of Diagnosis and Treatment)	100					

Type of questions and distribution of Theory marks for I year papers:

Type of questions	No of questions	Marks for each questions	Total
Long Essay	02	20	40
Short Essay	06	10	60

First Year

Paper-I

Usool-e-Tahqeeqat-e-Ilaj-e-Tadbeeri wa Hayati Shumariyat  
(Research Methodology and Biostatistics)  
Fundamentals of Research Methodology in Regimenal Research

- **Types of research**
  - (a) Literary research
  - (b) Clinical research
    - (i) Phases of Clinical Trails
  - (c) Experimental research
  - (d) Observation and field studies
- **Trends and possibilities of research in Ilaj Bit Tadbeer**
- **Recent research and developments in Ilaj Bit Tadbeer**
- **Research problems**
  - (a) Definition
  - (b) Selection and sources of research problems
- **Hypothesis**
  - (a) Types: Null and alternate hypothesis
- **Research designs**
  - (a) Types of research designs
- **Controls in research designs**
  - (a) Selection criteria
  - (b) Placebo and plain control
  - (c) Randomization
  - (d) Balancing and matching
- **Factors effecting research results**
- **Tools and techniques in research**
  - (a) Interview, questionnaire, inventories, scales
  - (b) Rating scales
  - (c) Analytical tools for experimental research-introduction
- **Computer programme used in research**
  - (a) Minitab
  - (b) SPSS
- **Protocols for research and report writing**
  - (a) Protocols for experimental, clinical and community based research
  - (b) Writing research report
  - (c) References in research report
    - (i) Books
    - (ii) Journals
    - (iii) Compendia
    - (iv) Bulletins
    - (v) WHO Report
    - (vi) Internet sites

- **Guide lines for research**
  - (a) WHO
  - (b) ICMR
  - (c) CPCSEA
- **Clinical Research and Trials**
- **Bias in Clinical Trials**
  - (a) Form Bias
  - (b) Source Bias
  - (c) Methods of Correcting the Bias
- **Issues and Prospects of Clinical research in Unani Medicine**
- **Regulatory and Ethical issues in Clinical trails**
  - (a) Declaration of Helsinki
  - (b) Ethical principles
  - (c) Constituting ethical committee
  - (d) Informed consent
  - (e) Patient information sheet (Modular CRF)
  - (f) Ethical issues pertaining to Leech therapy and Venesection
- **Bio-Statistics**
- **Scope and utility of Biostatistics**
- **Descriptive statistics**
  - (a) Analysis of Data
    - (i) Data collection, tabulation and presentation of data
    - (ii) Measure of central tendency—Mean, Median and Mode
    - (iii) Measures of dispersion: Range, quatratile deviation, standard deviation
  - (b) Probability
    - (i) Definition and laws of probability
    - (ii) Types of probability distribution
    - (iii) NPC and its application size
    - (iv) Randomized sampling
  - (c) Sampling
    - (i) Types and sample size
    - (ii) Randomized sampling
- **Inferential statistics**
  - (a) Correlation and linear regression
    - (i) Karl Pearson correlation coefficient
    - (ii) Linear regression equations
  - (b) Test of significance
    - (i) 't' test
    - (ii) 'z' test
  - (c) Test of variance
    - (i) ANOVA one way (ii) ANOVA two way X2
  - (d) Non-parametric tests
    - (i) Median test, Mann Whitney U test
    - (ii) Kruskall Wallis test, Fried test
- **Vital statistics**

- (a) Rate and Ratios
- (b) standardization of population
- (c) Risk factors

#### Reference Books

S. No	Title of the book	Publisher	Year of publication
1	INSA Guidelines for care and use of animals in Research		2000
2	CPCSEA Guidelines		2001
3	Ethical Guidelines for Biomedical research in human subjects	ICMR New Delhi	2000
4	ICMR Guidelines on animal use	ICMR New Delhi	2001
5	Clinical Research in Traditional Medicine	Dr. Ghazala Javed	-

#### Text Books

S. No	Title of the book	Edition & Volume	Name of the author	Publisher	Year of publication
1	Medical Ethics	2 <sup>nd</sup> Edition	Francis CM	Jay Pee brothers, Medical Publishers, New Delhi	2004
2	Practical approach to PG Dissertation	1 <sup>st</sup> Edition	Raveendran R and Gitanjali	Jay Pee brothers, Medical Publishers, New Delhi	1997
3	Research Methodology and Biostatistics in Pharmacology	1 <sup>st</sup> Edition	Mohd Aslam and Dr. Surender Singh	Academic Publisher New Delhi	2006



## Paper II - Ilaqui Tashreeh wa Munafe-ul Aza (Applied Anatomy and Physiology)

### Umoomi Tashreeh wa Munafe (General Anatomy & Physiology)

Anatomical positions of the body, axes, planes, common anatomical terminologies and surface anatomy of vessels & viscera.

Joint design, Materials used in human joints, General properties of connective tissues, Human joint design, Joint function, Joint motion, General effects of disease, injury and immobilization.

### Nizame Asaab (Nervous system)

Introduction, organization of central and peripheral nervous system, receptors, peripheral nerves, the brain stem, muscle tone, postural reflexes, the cerebellum, structure of cerebral cortex, Somatic sensory cortex, and parietal lobe, excitomotor areas, pyramidal tracts, clinical hemiplegia, regulation of body temperature, basal ganglia, spinal lesion, autonomic nervous system.

### Nizame Izam wa Azlaat (Musculoskeletal system)

Introduction, types and functions of muscular tissues, contraction of muscular tissue, exercise and skeletal muscular tissue, Neuromuscular Junction, regeneration of muscular tissue, physiology of skeletal muscle movement, effect of exercise on oxygen transport, muscle strength, endurance, BMR, R.Q. Joints: classification, structure, blood supply and nerve supply, range of motion and movement of synovial joints.

Mobility and stability functions of muscles

Elements of muscle structure

Muscle function

Effects of immobilization, injury and ageing

### Nizame Qalb wa Urooq (Cardiovascular system)

Introduction, anatomy of blood vessels, general description of various arteries and veins, the capillary circulation, veins and venous return, cutaneous circulation, nervous control of the skin circulation, lymph circulation, muscle circulation.

### Nizame hazm (Gastrointestinal system)

Introduction, histology of GI tract, movements of elementary canal, vomiting, diarrhea, constipation.

### Nizame Boul (Urinary system)

Urine formation, physiology of micturition, kidney and regulation of body fluid,

### Nizame Jild (Integumentary system)

Introduction, anatomy, functions and epidermal derivatives, applied aspect of integumentary system, pain receptors & dermatome

### Nizame Tannaffus (Respiratory system)

Introduction, mechanism of breathing, control of respiration, cough reflex, sneeze reflex, applied aspect of respiratory system.

### Books

S. No	Name of Book	Author's Name
1.	Essential of Medical Physiology	Sambulinghalm
2.	Medical Physiology	Guyton
3	Principles of Anatomy and Physiology	Tortora GE
4	Kulliyate Asri	Ishtiyag Ahmad

## Paper – III - Ilaj Bit Tadbeer-I (Ilaj bit Tadbeer Umoomi)

**Note: The preventive aspects of Modification and moderation in Asbabe Sitta Zaroriya in context with Ilaj bil Tadabeer.**

- **Introduction, Principles and Scope**

- **Asbab Sittah Zaruriyah—(Six Essential Factors):**

- 1. Tadabeer Mahual wa Hawa-ul Muheet**

**Aab-o-Hawa (Climate):** Classification, Effects of different climates on the body Nami (Humidity), Khushki (Dryness), Sardi (Coldness), Garmi (Hotness) and its Effects on human body

- **Mausam (Season):** Effects of seasons on the body, Changes produced in the body by spring season, Changes produced in the body by summer season, Changes produced in the body by autumn season, Clothing, Diseases specially associated with the seasons.
- **Khusoosiyat Sehat Mand Hawa (Properties of the healthy air)**
- **Takaddur-e Hawa (Air pollution):** Pollutants, Natural sources, Major primary pollutants produced by human activity, effects on Health, Air born diseases, Reduction efforts (Tadabeer)--Control devices(Air filters, Air freshening), Tabdeeli Masakin wo Aab wo Hawa se Ilaj

- 2. Tadabeer Ghiza : Makul Wal Mashroob (Food and Drinks):**

- **Al-Makul (Food):** General description of food and its classification based on digestion, chyme, nutrients, functions and classification of food based on dieto-therapy.
  - Sources of food their functions and their role in maintaining the health
  - Cooked and uncooked food and their properties
- **Al-Mashrub (Drinks):**General description of drinks, their sources, functions and uses.
  - Al-Maa (Water) its uses, good quality water, recommended servings of water per day, dietary sources of water.
  - Water contamination its principle sources, its contaminants, diseases caused by water pollution, its preventive measures and therapeutic value.
  - Importance of milk (Laban/Sheer/Doodh), Honey (Asl-un-Nahal/Shahad), Vinegar (Khall/Sirka) and Wine / Alcoholic beverages (Khamr/Sharab)
- **Balance Diet:** General description of balance diet its planning for healthy/diseased persons
  - Taqleele Ghiza:- Indication, contraindication, advantages and disadvantages
  - Takseere Ghiza:- Indication, contraindication, advantages and disadvantages
  - Tarke Ghiza:- Indication, contraindication, advantages and disadvantages
  - Dietary regimen for life style disorders ie Diabetes, Obesity , Hypertension, Hyperlipidaemia, IHD, etc

**3. Tadabeere Harkat was-Sukune Badani** (Regimen for Physical or bodily movement and repose)

- **Harkat-ul Badaniyah** (Physical or Bodily movement): Tadaabeer Harkat wa Sukoon:  
Physical Fitness--Basics of the physical fitness, Daily workout schedule, Clothing, Fitness Formula, Exercises in different Seasons, Effects of exercise, Exercise programs at home & office, Exercise for daily fitness, Exercises for a healthy back, Exercise during pregnancy.
- **Sukun ul Badani** (Repose): Need and importance of rest for maintaining and restoring health.

**4. Tadabeer Harkat wa Sukun Nafsani** :(Regimen for Mental or psychic movement and repose)

- **Harkate Nafsaniyah** (Mental or psychic movement)
- **Sukune Nafsani** (Repose)

**5. An-Naum wa-Yaqzah** (Sleep & wakefulness)

- **An-Naum** (Sleep): Polysomnography, Science Wakes Up to Sleep Disorders, Sleep disorders (Hypersomnia, Insomnia, Snoring, Specific Regimenal therapies in sleep disorders)
- **Al-Yaqzah** (Awakefulness): Effects of prolonged awakensness, General recommendations to treat insomnia, Psychological therapies

**6. Tadabeere Ihtibas wa Istifragh** (Retention and Evacuation)

- **Al-Ehtibas** (Retention): General consideration of Ehtibas and its scope
- **Al-Estifragh** (Evacuation):

**7. General description of Asbabe Ghair Zarooriyah**

**8. Tadabeere Naumaulood wa Atfaal** (Regimens for neonates and infants)

**9. Tadabeere Hamela** (Regimens for pregnant)

**10. Tadabeere Razaa't** (Breast feeding and top feeding regimens)

**11. Tadabeere Mashaikh** (Regimens for the elderly)

**12. Tadabeere Asnan i.e, Tadabeer Saba /Naujawan** (Regimens for different age groups)

**Books**

S. No	Title of the book	Name of the author
1	Park's Social and Preventive Medicine	Park. K
2	Al Qanoon Fit Tib	Ibne Sina
3	The Canon of Medicine by Avicenna	Mazhar H. Shah
	Kulliyat-e-Nafisi	Burhanuddin Nafisi
4	Tauzihat Asbab Sittah Zarooriya	Abu Waris Jamil
5	Ilaj-bit-Tadbeer	Ehsanullah & Inayatullah
6	Other thesis	Work done in AMU, Jamia Hamdard, NIUM Bangalore and other research institute

**Paper – IV - Usoole Tashkhees wa Ilaj (Principle of Diagnosis and Treatment)**

- **Tashkhees ki Gharz-o-Ghaiyat**
- **Aam Istifisarat**
  - **Rudad-e-Mareez**
    - (a) Present complaint
    - (b) History of present illness
    - (c) Past History
    - (d) Family History
    - (e) Personal History
    - (f) Treatment History
- **Khusoosi Istifisarat**
  - Nizami Istifisarat
- **Umoomi Imtehan-e-Mareez (General examination)**
  - (a) General appearance
  - (b) Mental and Emotional states
  - (c) Attitude, gait, physique
  - (d) Face, eyes, neck, thyroid gland
  - (e) Upper limb, lower limb
  - (f) Lymphatic system
  - (g) Pulse
  - (h) Respiration
  - (i) Temperature
  - (j) Blood Pressure
- **Imtehan-e-Zufur wa Sha'ar ma Jadeed Tashkheesi Zarai**
- **Imtehan-e-Jild ma Jadeed Tashkhaesi Zarai**
- **Imtehan-e-Nizam-e-Hazm**
  - (a) Clinical Symptoms
  - (b) Examination
  - (c) Investigations
  - (d) Recent diagnostic techniques
  - (e) Usool-e Ilaj
- **Imtehan-e-Nizam-e-Tanaffus**
  - (a) Clinical Symptoms
  - (b) Examination
  - (c) Investigations
  - (d) Recent diagnostic techniques
  - (e) Usool-e Ilaj
- **Imtehan-e-Nizam-e Baul**
  - (a) Clinical Symptoms
  - (b) Examination
  - (c) Investigations
  - (d) Recent diagnostic techniques
  - (e) Usool-e Ilaj
- **Imtehan-e-Nizam-e Dauran-e Khoon wa Qalb**

- (a) Clinical Symptoms
- (b) Examination
- (c) Investigations
- (d) Recent diagnostic techniques
- (e) Ulsool-e Ilaj
- **Imtehan-e-Nizam-e-Asaab**
  - (a) Clinical Symptoms
  - (b) Examination
  - (c) Investigations
  - (d) Recent diagnostic techniques
  - (e) Usool-e Ilai
- **Imtehan-e-Nizam-e- Ezam wa Mafasil**
  - (a) Clinical Symptoms
  - (b) Examination
  - (c) Investigations
  - (d) Recent diagnostic techniques
  - (e) Usool-e Ilaj
- **Imtehan-e-Nafsani**
  - (a) Cardinal symptoms
  - (b) Examination
  - (c) Investigations
  - (d) Recent diagnostic techniques
  - (e) Usool-e-Ilaj
- Imtehan-e-Ghudad-e Laqanatiya**
  - (a) Clinical Symptoms
  - (b) Examination,
  - (c) Investigations
  - (d) Recent diagnostic techniques
  - (e) Usool-e Ilaj
- **Imtehan-e-Mashaikh**
  - (a) Clinical Symptoms
  - (b) Examination
  - (c) Investigations.
  - (d) Recent diagnostic techniques
  - (e) Usool-e Ilaj
- **Nabz**
  - (a) Sharait-e Nabz, Tareeqa-e Imtehan
  - (b) Ajnas-e Nabz
  - (c) Nabz-e Mufrad, Nabz-e Murakkab
  - (d) Asbaab-e Nabz
  - (e) Nabz ke Tabai Ikhtelafaat
  - (f) Nabz ke Marzi Ikhtelafaat
- **Baul**
  - (a) Nazri wa Khurdbeeni Imtehan
  - (b) Aqsam-e Baul
  - (c) Dala'el-e Baul

- **Baraaz**  
(a) Nazri wa Khurdbeeni Imtehan
- **Usool-e-Ilaj**  
(a) Ilaj ke Kulli Tareeqe  
(b) Ilaj Bid Dawa ke Qavaneen  
(c) Auram kaUsool-e Ilaj  
(d) Tareeqa-e Taadil wa Tanqiya Akhlat  
(e) Qavaneen wa Zaraye Istifragh—Is’hal, Qai, Idrar, Huqna, Tareeq, Tanfees, Hijamat, Irsal-e Alaq, Fasd

### **Practical**

The students of Ilaj Bit Tadbeer 1 year will be posted at the IPD unit for imparting practical training.

### **Reference Books**

<b>S. No</b>	<b>Title of the book</b>	<b>Name of the author</b>	<b>Year of publication</b>
1	Hutchinson’s Clinical Methods	Michael Swash Michael Glynn	2009
2	Amali Saririyat	Mohd. Yunus Siddiqui	2003
3	Rahnumai-e-Tashkhees	Ehtishamul Haque Quraishi	1984
	Kitab-ut Tashkhees	Mohd. Anwar	2002
5	Macliord’s Clinical Examination	Graham Douglas, Fiona Nicol, Colin Robirtson	2009
6	Chamberlin’s Clinical Medicine	Colin Ogilvie, Christopher C. Evans	1997

### Details of Teaching and Clinical hours

Subjects	Theory Hrs.	Clinical Hrs.
<b>Paper I</b> – Mechanici Hayatiyat (Biomechanics)	100	50
<b>Paper II</b> - Ilaj Bit Tadbeer-II (Ilaj Bit Tadbeer Khusoosi)	100	50
<b>Paper III</b> – Ilaj Bit Tadbeer-III (Amraze Nizame Badni ka Tadbeeri Ilaj)	100	50

### Scheme of Examination of Ilaj Bit Tadbeer Final Year

No. of Papers	Name of the paper	Theory marks	Sub Total	Practical marks	Viva voce	Sub Total	Grand Total
Paper -I	Mechanici Hayatiyat (Biomechanics)	100	300	75	25	100	400
Paper – II	Ilaj Bit Tadbeer-II (Ilaj Bit Tadbeer Khusoosi)	100					
Paper – III	Ilaj Bit Tadbeer-III (Amraze Nizame Badni ka Tadbeeri Ilaj)	100					

Type of questions and distribution of Theory marks for I year papers:

Type of questions	No of questions	Marks for each questions	Total
Long Essay	02	20	40
Short Essay	06	10	60

## Final year - Paper –I – Mechanici Hayatiyat (Biomechanics)

- General description of Biomechanics and its scope
- Fundamentals of biomechanics
  - Basic mechanical concepts
    - Types of Motion, Location of Motion, Direction of Motion, Magnitude of Motion, Definition of Forces, Force of Gravity, Reaction forces, Equilibrium, Objects in Motion, Force of friction, Concurrent force systems, Parallel force systems, Work, Moment arm of force, Force components, Equilibrium of levers
- Application of biomechanics in strength and conditioning
- Mechanics of musculoskeletal system
  - Biomechanics of upper and lower limb
  - Biomechanics of walking and running
  - Assessment and correction of limb biomechanics

### **Analysis of Posture and Gait:**

Static and dynamic posture, postural control, kinetics and kinematics of posture, ideal posture analysis of posture, effects of posture on age, pregnancy, occupation and recreation; general features of gait, gait initiation, kinematics and kinetics of gait, energy requirements, kinematics and kinetics of the trunk and upper extremities in relation to gait, stair case climbing and running, effects of age, gender, assistive devices, disease, muscle weakness, paralysis, asymmetries of the lower extremities, injuries and mal-alignments in gait; Movement Analysis : ADL activities like sitting – to standing, lifting, various grips , pinches.

### **Introduction to Exercise Therapy**

- Introduction, Effect of therapeutic exercise, Types of skeletal muscle fibers (Type I & Type II)

### **Classification of muscle-Based on arrangement of fascicule**

- **Parallel**-strap, fusiform, rhomboidal, triangular
- **Oblique**-Unipinnate, bipinnate, multipinnate

#### **Circular**

### **Types of muscular contraction**

Isotonic, Isometric, Concentric, Eccentric

### **Group muscle action**

Agonist, Antagonist, Neutralizer, Stabilizer or Fixator

### **Range of muscle work**

Full range, Inner range, Middle range, Outer range

### **Methods of Testing**

- Functional tests
- Measurement of Joint range: ROM-Definition, Normal ROM for all peripheral joints
- & spine, Goniometer-parts, types, principles, uses., Limitations of goniometry,
- Techniques for measurement of ROM for all peripheral joints
- Tests for neuromuscular efficiency -
  - Electrical tests, Manual Muscle Testing: Introduction to MMT, Principles & Aims, Indications & Limitations, Techniques of MMT for group &



individual muscles: Techniques of MMT for upper limb /Techniques of MMT for lower limb / Techniques of MMT for spine, Anthropometric Measurements: Muscle girth – biceps, triceps, forearm, quadriceps, calf. Static power Test, Dynamic power Test, Endurance test, Speed test, Tests for Co-ordination

- Tests for sensation
- Pulmonary Function tests
- Measurement of Limb Length: true limb length, apparent limb length, segmental limb length
- Measurement of the angle of Pelvic Inclination

**Basic Concepts in Electrical Stimulation**

Resting Membrane Potential, Action Potential, Propagation of Action Potential, Motor Unit

**Electrotherapy:** Types of currents used in Physiotherapy, Electrotherapy modalities used in Physiotherapy, Therapeutic and Physiological effects, Indications and Contraindications, EMG.

**Books**

S. No	Title of the book	Name of the author
1	Basic Biomechanics of the Musculoskeletal system	Margaret Nordin
2	Brunnstrom’s Clinical Kinesiology	Peggy A. Houglum Dolores B. Bertoti
3	Joint Structure and Function A Comprehensive Analysis	Cynthia C. Norkin
4	Electrotherapy Explained principles and Practice	John Low, Ann Reed
5	Text book of Bio mechanics and Exercise Therapy	Dr.C.Nagavani

**Ilaj Bit Tadbeer-II**  
**(Ilaj bit Tadbeer Khusoosi)**

- **Usoole Istefragh wa Tanqiya:** General consideration of Al-Istifragh, its scope and types, detailed description of Nuzj wa Tanqiya.
- **Qai (Emesis),** Introduction ,Definition, aims and objectives, Drugs used for Qai, Indications and contraindications, awqat, Qai ke bad Munasib Tadabeer, Qai ke Aaraz aur unka Ilaj, Kasrate Qai ke Nuqsanat,Therapeutic efficacy of vomiting, vomiting in various systemic diseases, Pharmacology of emetic drugs.
- **Is'haal (Purgation)** Introduction, Definitions, Principles, Classification, Indications and contraindications, Drugs used for purgation, Ayyam wa Awqat (dosage and timings) Tadbeer Daurane Mus'hil/ Mushil ke bad Aab wa Ghiza, Tabreed, Ishal for prevention of disease and promotion of health, Mushil ke bad Ghiza, Therapeutic efficacy of purgation and pharmacology of purgatives.
- **Huqna (Enema)**  
Definition, principles, aims, Objectives, Classification, Procedure, Drugs used in Huqna, Indications and contraindications
- **Tanfees (Expectoration),** Definition, principles, aims, Objectives, Procedure, Drugs used in Tanfees, Indications and contraindications
- **Idrar (Diuresis),** Introduction , Definitions, Scopes and objectives, Indications and Contraindications, Drugs used for Idrar/ diuretic drugs, Diuresis in hepatorenal diseases, urolithiasis, hypertension, abnormalities related to micturition and their management, Catheterization, Bladder care in bed ridden patients.
- **Tareeq (Diaphoresis / Sweating)** Definition, Aims and Scopes, Methods and Procedures, Indications and contraindications, adverse effects of Tareeq
- **Fasd-al-Wareed (Phlebotomy or Venesection) (ii) Fasd-ash-Sharyan (Arteriotomy)—**
  - ✚ Procedure of blood-letting, Definition, Sites of Venesection, Description of Vessels of Venesection, Instruments used in Venesection, Pre-Venesection Procedure, Investigations like (Hb%, Bleeding Time, Clotting Time, Prothrombin time, platelet count, blood sugar, Blood group with Rh typing, HIV, HbsAg), precautions & Complications, Indications and Contraindications, Management of Post procedural problems, Waqt (Timings), Venesection as a mean of reducing Imtela, Effects on circulatory system, Recommendations regarding amount and sites, Antiseptic precautions, Management of Heamorrhage and associated Complications
  - ✚ Standard operative procedures
- **Irsale Alaq (Leeching):**
  - ✚ History of Leech Therapy, Definition, Description of Leeches, Breeding of leech and domestication, types / Classification of leech, Leech collection, storage and preservation, Leeching procedure / application and removal of

leech, Precautions, Indications and contraindications, Medicinal efficacy of enzymes present in leech saliva, Zoological description of leech, Leeching and vascular diseases, Threat of disease transmission- HIV, HBV, Complications – Immediate and delayed management of Haemorrhage, Leech poisoning and its management

↓ Standard operative procedures

- **Al-Hijamah (Cupping Therapy)**—
  - History-Greeko Arab practice of Hijama, Modern cupping, Introduction & Definition, Types of cupping (Hijamat Bish Shart & Bila Shart), sites of application in relation to different diseases and procedures of Hijamat, indications and contraindications, duration, Mode of action, Application of Hijama in prevention of various disorder in healthy individual, Therapeutic effects, sites to be excluded for wet and dry cupping, Contraindications, Local effects, Instruments and their care, Antiseptic precautions, risk of disease transmission, complications and their management.
  - Standard operative procedures
- **Dalk (Massage Therapy)**
  - ↓ Definition, scopes, Principles and Objectives, Classification (Aqsam) of Dal'k, specialised Dalk for various muscles, Effects of adjuvant drugs in Dalk, Indications and therapeutic uses, Duration of Dalk, Condition for specific Dalk, Adverse effects / Contraindications, Physiological effects, Applied aspects of Dalk, Sequence of Dalk, Therapeutic properties of oils used in massage, Modes of action and effects, Massage in musculoskeletal disease, neurological disease, Rehabilitation therapy, Methods of preparation of important oils used in Dalk
  - ↓ Standard operative procedures
- **Hamam** : Definition, Principles, Objectives, Types of Hamam / Classification, Kinds of Hamam rooms and its importance, Therapeutic uses, indications, Contraindications & effects, Adverse effects, Sharaite Hamam (Conditions), modulation and maintenance of Mizaj, Relation of Hamam with Kaifiyate Arba and their diseases, Hamam and cutaneous circulation, Effects of Hamam on autonomic nervous system, Neuromuscular diseases, Thermo-regulation, body weight & Reflexo- genic effect of Hamam, Hamam in Amraze Barida, Rataba and Yabisa.
- **Takmeed (Fomentation)**—Definition, types – {Takmeed Haar (Hot fomentation), Takmeed Barid (Cold fomentation)}, Indications, Contraindications.
- **Riyazat (Exercise)**

Definition, Aghraz wa Maqasid (Scope and objectives), Principles, types, Scientific interpretation and effects of Riyazat in certain disease like Sports induced diseases, Fawaid (Therapeutic importance), indications, Adverse effects, Conditions( Sharait) for general and Organ specific Riyazat, contraindications ,Timing/Duration of exercise, Exercise in cardiovascular and neurological diseases, Movements at different joints and their limitation

Effect of Riyazat on Tabiyat, Hararate Gharizia and dissolution, Tiredness (Eiya) and its management, Traditional methods of exercise, Riyazat in Ifqaric Marze

qalb (IHD), Zightuddam Qavi (hypertension), obesity, diabetes and other life style diseases.

- **Amale Kai (Cauterization)**

Introduction, Definition, Aims, Objectives, Procedure, Precautions, Indications and contraindications, Mechanism of action, Kai in Amraze Barida, Amraze Mafasil and modulation of Mizaj, Modern methods of cauterization, post cauterization care of patients.

**Standard Operative Procedures (SOPs) whichever is available**

- **The procedures, where SOP are not available, department should start to develop and finalized after submitting at appropriate level**

**MUTAFFARRIQ TADABEER (MISCLINOUS REGIMINAL THERAPIES)**

- Lakhlakha / Shamoom / Nashooq / Sauoot (Aroma Therapy)
- Inkebab (Steam inhalation)
- Amle Ta'tees (Sternutation/Sneezing),
- Ilaam (Counter irritation) Counter-Irritants, Indications for Counter-irritants
- Sukoob / Nutool
- Aabzan
- Pashoya
- Bakhoor / Dhuni

**Books**

S. No	Title of the book	Name of the author
1	Ilaj-bit-Tadbeer	Ehsanullah & Inayatullah
2	Kulliyat-e Qanoon	Ibn Sina/ Kabeeruddin
3	Kulliyat-e-Nafisi	Burhanuddin Nafisi
4	Tauzihat Asbab Sittah Zarooriya	Abu Waris Jamil
5	Kitabul Umda Fil Jarahat	Ibn Quf
6	Kitabul Mukhtarat	Ibn Hubl
7	Kitabul Kulliyat	Ibn Rushd

**Amraze Nizame Badni ka Tadbeeri Ilaj**

(Application of Therapeutic Regimens in Systemic Diseases)

- **Amraz Nizam-e-Dauran-e-Khoon (Diseases of circulatory system)**
  - Amraz-e-Qalb (Diseases of heart)
  - Amraz-e-Urooq-e-Damvia (Diseases of blood vessels)
- **Amraz Nizam-e-Tanaffus (Diseases of respiratory system)**
  - Amraz-e-Riya (Diseases of lungs)
  - Amraz-e-Ghishur-Riya (Diseases of pleura)
- **Amraz Nizam-e-Hazam**
  - Amraz Dahan (Diseases of Buccal cavity)
  - Amraz Aslul Uzn (Diseases of Salivary glands)
  - Amraz Mari (Diseases of Oesophagus)
  - Amraz Meda wa Isna-e-Ashri (Diseases of stomach and Duodenum)
  - Amraz Ama (Diseases of Intestine)
  - Amraz Kabid wa Mirarah (Diseases of Liver and Gall bladder)
- **Amraz Nizam-e-Baul wa Tanasul**
  - Amraz Nizam-e-Baul (diseases of Urinary tract)
  - Amraz Tanasul (Diseases of Reproductive system)
- **Amraz Jild**
  - Amraz-e-Jild (Skin diseases)
- **Amraz Azalat wa Mafasil**
  - Amraz-e-Mafasil (Joint diseases)
  - Amraz-e Azalat (Muscular disease)
- **Amraz Nizam Asab wa Dimagh**
  - Amraz-e Asab wa Dimagh
- **Amraze Nafsaniya**
- **Hummiyat (Fever):**
  - Hummiyat mein Ghizai Ahkam (Dieto-therapy in fevers)
  - Tadabeer-e-Taql-eel-e-Hararat (Regimes for lowering fever)
  - Humma-e-Yaum ka Tadabeeri Ilaj (Regimes for Humma-e-Yaum)
  - Humma-e-Khilti ka Tadabeeri Ilaj (Regimes for Humma-e-Khilti):
  - Humma-e-Diqqi ka Tadabeeri Ilaj (Regimes for Humma-e-Diqqi)
- **Tadabeer-e-Mashaikh (Geriatric Care):**
  - Mashaikh mein Ahkam-e-Ghiza, Ahkam-e-Riyazat, Dal'k wa Deegar Tadabeer (Dieto-therapy and other regimes)
- **Metabolic diseases:** Metabolic Syndrome, Diabetes mellitus, Obesity, Hypertension, Hypothyroidism.

**Miscellaneous Diseases:**

Daa-ul Feel, Dawali, Daa-us Sadaf, Faliye Nisfi, Faliye Asfal, Waja-ul Mafasil, Waja-uz Zahr, Siman-e Mufrit, Ziqht-ud Dam Qawi, Sahar, Ra'sha, post Stroke

rehabilitation, Suda, Bars, Cervical Spondylosis, Lumbar Spondylosis, frozen shoulder, Muscular dystrophy, chronic non-healing ulcer, Qabz, Shaqeeqa, Deep vein thrombosis, varicose ulcer, Waja-ul Asab, Irq-un Nisa, Myopathy, Spinal cord disease, Neurodegenerative disease, and Life style disease, Anxiety, Depression.

• **Reference books:**

S.No.	Books	Author
1	Al Qanoon Fit Tibb	Ibne Sina
2	Al Akseer	Hkm Azam Khan
3	Zakheera Khuwarzam Shahi	Hkm Ismaeel Jurjani
4	Harrison's Internal Medicine	Fauci AS, Braunwald E, Kasper L
5	Davidson's Principles and Practice of Medicine	Edwards CR
6	Sharah-e-Asbab	Translated by Khuaja Rizwan Ahmad

**Clinical skills**

1. **Day to day work:** Skills in Out Patients and ward work should be assessed periodically. The assessment should include the candidate's sincerity & punctuality, analytical ability and communication skill.
2. **Clinical meetings:** Candidate should periodically present cases to his/her peers & faculty members. This should be assessed using a checklist.
3. **Journal Club Presentation:** P.G. Scholars should periodically present research papers of various journals related to Ilaj Bit Tadbeer.
4. **Practical Training:** P.G. Scholars should be posted in regimenal and physiotherapy units of the hospital for the practical training of various procedures and techniques.
5. **Clinical and procedural:** The candidate should be given graded responsibility to enable learning by apprentice ship. The performance is assessed by the guide direct observation. Particulars are recorded by the students in the log book.

**Research work:**

1. PG Scholars should submit the synopsis of Research work within Six month after completion of admission.
2. PG Scholars shall be posted in IPD/OPD section of Hospital during the period of Course.
3. The Thesis must be submitted six month before the completion of Course.

