

**1<sup>st</sup> Semester (1<sup>st</sup> Year)**

Papers	Course Code	Subject	Credit Hours	
			Theory	Practical
1	AT01	Anatomy-I	3	1
2	AT02	Physiology-I	3	1
3	AT03	Pharmacology-I	3	1
4	AT04	Islamic Education	3	0
5	AT05	Biochemistry-I	3	1
6	AT06	Computer Skills-I	3	1
<b>TOTAL</b>			<b>23</b>	

**2<sup>nd</sup> Semester (1<sup>st</sup> Year)**

Papers	Course Code	Subject	Credit Hours	
			Theory	Practical
1	AT07	Anatomy-II	3	1
2	AT08	Physiology-II	3	1
3	AT09	Pharmacology-II	3	1
4	AT10	Pak Study	3	0
5	AT11	Biochemistry-II	3	1
6	AT12	Computer Skills-II	3	1
<b>TOTAL</b>			<b>23</b>	

**3<sup>rd</sup> Semester (2<sup>nd</sup> Year)**

Papers	Course Code	Subject	Credit Hours	
			Theory	Practical
1	AT13	Anatomy related to Anesthesia	3	1
2	AT14	Physiology related to anesthesia	3	1
3	AT15	Basic Epidemiology-I	3	0
4	AT16	Sociology –I	3	0
5	AT17	Bio-Statics-I	3	0
<b>TOTAL</b>			<b>17</b>	

**4<sup>th</sup> Semester (2<sup>nd</sup> Year)**

Papers	Course Code	Subject	Credit Hours	
			Theory	Practical
1	AT18	Zones of interest to anesthesia, instruments and clinical practice in general surgery, urology and ENT	3	1
2	AT19	Anesthesia equipment and Clinical practice in Orthopedic, Eye and Gynea OT	3	1
3	AT20	Basic Epidemiology-II	3	0
4	AT21	Sociology –II	3	0
5	AT22	Bio-Statics-II	3	0
<b>TOTAL</b>			<b>17</b>	

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

### 5<sup>th</sup> Semester (3<sup>rd</sup> Year)

Papers	Course Code	Subject	Credit Hours	
			Theory	Practical
1	AT23	Pharmacology to anesthesia & clinical practice – I	3	1
2	AT24	Pre-up & post-up management & clinical practice – I	3	1
3	AT25	Pre-operative medications, assessments & clinical practice in casualty – I	3	1
4	AT26	Pathology-I	3	1
5	AT27	Basic Communication Skills-I	3	0
<b>TOTAL</b>			<b>19</b>	

### 6<sup>th</sup> Semester (3<sup>rd</sup> Year)

Papers	Course Code	Subject	Credit Hours	
			Theory	Practical
1	AT28	Pharmacology to anesthesia & clinical practice – I	3	1
2	AT29	Pre-up & post-up management & clinical practice – I	3	1
3	AT30	Pre-operative medications, assessments and clinical practice in casualty – I	3	1
4	AT31	Pathology-II	3	1
5	AT32	Basic Communication Skills-II	3	0
<b>TOTAL</b>			<b>19</b>	

### 7<sup>th</sup> Semester (4<sup>th</sup> Year)

Papers	Course Code	Subject	Credit Hours	
			Theory	Practical
1	AT33	Different types of anesthesia and clinical practice in	3	1
2	AT34	Anesthesia/Coexisting diseases & clinical practice – I	3	1
3	AT35	Specialized practice in anesthesia in different OT's – I	3	1
4	AT36	Public Health-I	3	1
5	AT37	Research Methodology-I	3	0
6	AT38	Ethics & Management-I	3	0
<b>TOTAL</b>			<b>22</b>	

### 8<sup>th</sup> Semester (4<sup>th</sup> Year)

Papers	Course Code	Subject	Credit Hours	
			Theory	Practical
1	AT39	Different types of anesthesia and clinical practice in	3	1
2	AT40	Anesthesia/Co-existing diseases&clinical practice – II	3	1
3	AT41	Specialized practice anesthesia in different OT's – II	3	1
4	AT42	Public Health-II	3	1
5	AT43	Research Methodology-II	3	0
6	AT44	Ethics & Management-II	3	0
<b>TOTAL</b>			<b>22</b>	

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**1<sup>st</sup> SEMESTER****PAPER-I: ANATOMY-I (1<sup>st</sup> SEMESTER)**

<b>CREDIT HOURS:</b>	<b>3+1</b>	<b>MARKS</b>	<b>100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS</b>	<b>60</b>
		<b>TIME:</b>	<b>3 HRS</b>

**OBJECTIVE:**

To introduce the students the significance of the subject of anatomy in medical science regarding its knowledge its applications and day-to-day developments in the subject

**COURSE CONTENT:**

- I. **General Anatomy**  
Anatomical terms and positions  
Description of tissue
- II. **Systemic Anatomy**  
Systemic Anatomy includes
  - a. Muscular skeletal system
  - b. Gastrointestinal system
  - c. Respiratory system
  - d. Cardiovascular system

**RECOMMENDED BOOKS:**

Snell's clinical Anatomy (Text Book) by Snell 7thg Edition 2000 published by Churchill Living Stone

Gray's anatomy (Reference Book) by Roger Warwick Petter L. Williams 1973 published by Langman group limited.

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-2: PHYSIOLOGY -I (1<sup>st</sup> SEMESTER)****CREDIT HOURS: 3+1****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS****OBJECTIVE:**

To introduce the students the significance of the subject of Physiology in medical science regarding its knowledge in making the other subjects of medical sciences understandable. Its applications and day to day developments in the subject of Physiology.

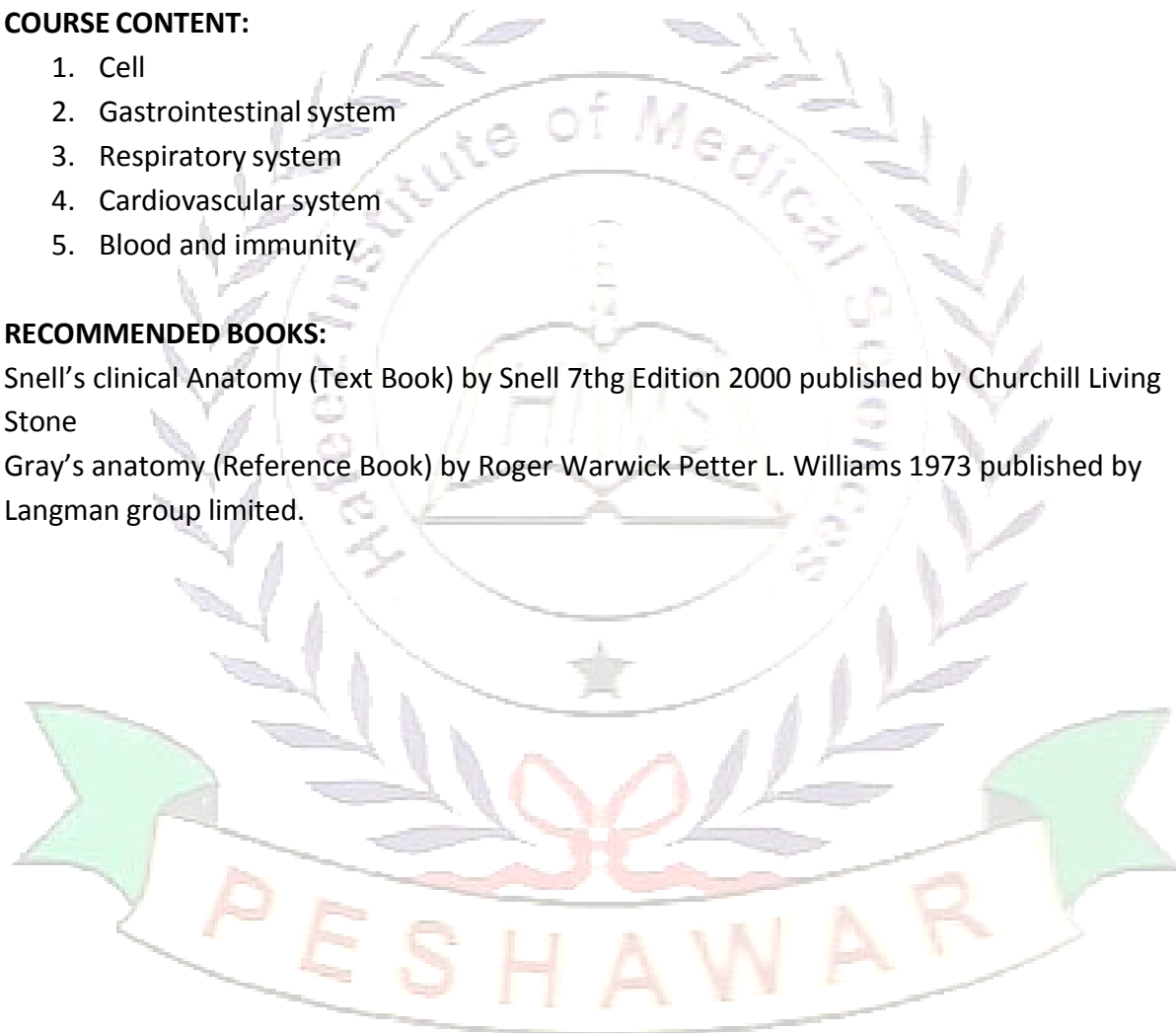
**COURSE CONTENT:**

1. Cell
2. Gastrointestinal system
3. Respiratory system
4. Cardiovascular system
5. Blood and immunity

**RECOMMENDED BOOKS:**

Snell's clinical Anatomy (Text Book) by Snell 7thg Edition 2000 published by Churchill Living Stone

Gray's anatomy (Reference Book) by Roger Warwick Petter L. Williams 1973 published by Langman group limited.

**Prepared By:****Hafeez Institute of Medical Sciences Peshawar**

**PAPER-3: PHARMACOLOGY -I (1<sup>st</sup> SEMESTER)**

<b>CREDIT HOURS:</b>	<b>3+1</b>	<b>MARKS</b>	<b>100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS</b>	<b>60</b>
		<b>TIME:</b>	<b>3 HRS</b>

**OBJECTIVE:**

To introduce the students the knowledge of the subject of pharmacology with regards to its importance in understanding the other disciplines of medical sciences regarding the application of the subject and to learn about the new developments in the field of pharmacology.

**COURSE CONTENT:**

1. Introduction to Pharmacology
2. Pharmacokinetics
3. Pharmacodynamics

**RECOMMENDED BOOKS:**

Lippincott's pharmacology (Text Book) by Mycek 2<sup>nd</sup> edition 2000 published by Lippincott Raven

Katzung textbook of pharmacology (Reference Book) by Bertram Katzung 8<sup>th</sup> Edition published by Appleton.

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-4: ISLAMIC EDUCATION (1<sup>st</sup> SEMESTER)**

**CREDIT HOURS: 3**  
**INTERNAL MARKS 40**

**EXTERNAL MARKS 60**

**MARKS 100**  
**TIME: 3 HRS**

**OBJECTIVE:**

- To educate students regarding basic concept of Islam
- To educate students regarding Islamic influence in the world
- To educate the students regarding Islamic Medical Ethics & Contribution of the Muslims in Medicine, Science & Technologies.

**COURSE CONTENT:**

**Holy Quran and Sunnah**

**1.1 Holy Quran**

- Introduction
- Importance and characteristics
- Sura-e-Hujarat with translation
- Sura-e-Al-Furqan: Verses 63-77 with translation and explanation

**1.2 Sunnah**

- Importance of Sunnah
- Twenty selected Hadith with translation  
 (Mention in Islamiyat Compulsory for degree classes,  
 Published by:  
 (Allama Iqbal Open University)

**Fundamental Doctrine of Islam**

- a. Islam with reference to Holy Quran & Hadith
- b. Tawheed (Oneness of Allah)
- c. Prophethood
- d. The day of judgment (Akhirat)
- e. Salat & nimaz (Abadaat)
- f. Saum (Fasting)
- g. Zakat
- h. Hajj
- i. Jihad

**Life of Holy Prophet**

**Prepared By:**

**Hafeez Institute of Medical Sciences Peshawar**

- 3.1 study of the life of the Holy Prophet & Seerat
- 3.2 life of the Holy Prophet at Makkah from birth to Hijra (Migration to Madina)
- 3.3 Method of Preaching & difficulties
- 3.4 Life of Holy Prophet at Madina
- 3.5 Amicable Accords (Mowkhat)
- 3.6 Treaty of Madina (Misaq-e-Mukarama)
- 3.7 Conquest of (Makkah Al-Mukarama)
- 3.8 Hajat-ul-wida

### **The Ethical View of Islam & Characteristics Islamic Cultural**

- 4.1 Character Building
- 4.2 The Concept of Ethics
- 4.3 The Moral Values: Truthfulness, Tawakal, Taqwa, Fulfillment of Promises, Simplicity, the respect of Parents and Guardians, Behaviorism & Broadness,
- 4.4 Islamic Society: Kisab-e-Halal, Human Dignity, Social Justice Adh-e-Shoora

### **Influence of the Islamic Civilization**

- 4.4 Panacea of our Problems  
Our Future, Unity, Political Stability

### **Islamic Medical Ethics**

Contribution of the Muslims in Medicine, Science and Technology

**NOTE:** While keeping the Islamic values and basic Characteristics of Islamic Society the Proper guideline may be provided in such a way that should be applicable in business and trade.

### **RECOMMENDED BOOKS:**

Islamiyat Compulsory, Islamabad, Allama Iqbal Open University, Islamabad  
M.D Zaffar, Islamic Education (Compulsory) Lahore Aziz Book Dept. Urdu Bazaar.

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**



**PAPER-5: BIOCHEMISTRY -I (1<sup>st</sup> SEMESTER)**

**CREDIT HOURS: 3+1**

**MARKS 100**

**INTERNAL MARKS 40**

**EXTERNAL MARKS 60**

**TIME: 3 HRS**

**OBJECTIVE:**

The introduction of knowledge subject of biochemistry to student regarding its importance in understanding the other domains of medical science and regarding the applications of the subject and to know about the recent developments in the field of biochemistry.

**COURSE CONTENT:**

1. Introduction
2. Carbohydrate
3. Proteins
4. Lipids
5. Enzyme
6. Vitamins

**RECOMMENDED BOOKS:**

Harper's text book of Biochemistry (Text Book) by Bertram Katzung 1992 published by Appleton Lange.

Biochemistry for Paramedics by Dr. Khalid Mehmood 2005 published by UB agency Peshawar.

**Prepared By:**

**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-6: COMPUTER SKILLS-I (1<sup>st</sup> SEMESTER)****CREDIT HOURS: 3+1****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS****OBJECTIVE:**

To introduce the students the significance of the subject of computer definitions, history, types and component, hardware and software application.

**COURSE CONTENT:****Introduction:**

1. Definition of computer
2. History of computer
3. Classification of computer
4. Components of computer

**Hardware and Software**

1. Physical components of computer
2. Logical component of computer
3. System software
4. Application software

**Storage devices**

1. Magnetic storage devices
2. Optical storage devices
3. Memories

**RECOMMENDED BOOKS:**

Fundamental of I.T concept by Nayyar Kanwal by CECOSE University Teacher's notes

**Prepared By:****Hafeez Institute of Medical Sciences Peshawar**

**2<sup>nd</sup> SEMESTER****PAPER-I: ANATOMY-II (2<sup>nd</sup> SEMESTER)****CREDIT HOURS: 3+1****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS****COURSE CONTENT:**

- a. Lymphatic system
- b. Head and Neck
- c. Nervous System
- d. Urinary System
- e. Reproductive System
- f. Endocrine System
- g. Special Senses

**RECOMMENDED BOOKS:**

Snell's clinical Anatomy (Text Book) by Snell 7th Edition 2000 published by Churchill Living Stone

Gray's anatomy (Reference Book) by Roger Warwick Petter L. Williams 1973 published by Langman group limited.

**Prepared By:****Hafeez Institute of Medical Sciences Peshawar**

**PAPER-2: PHYSIOLOGY-II (2<sup>nd</sup> SEMESTER)****CREDIT HOURS: 3+1****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS****COURSE CONTENT:**

1. Nerves System
2. Urinary System
3. Endocrine System
4. Special Senses

**RECOMMENDED BOOKS:**

Guyton test book of Physiology (Text Book) by Guyton 1991 published by W.B Saunders company

Ganong review of Physiology (Reference Book) by Ganong 20<sup>th</sup> Edition 2000 published by Land Medical book.



**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-3: PHARMACOLOGY -II (2<sup>nd</sup> SEMESTER)**

**CREDIT HOURS: 3+1 MARKS 100**  
**INTERNAL MARKS 40 EXTERNAL MARKS 60 TIME: 3 HRS**

**OBJECTIVE:**

To introduce the students the knowledge of the subject of pharmacology with regards to its importance in understanding the other disciplines of medical sciences regarding the application of the subject and to learn about the new developments in the field of pharmacology.

**COURSE CONTENT:**

1. Adverse effects of drugs
2. Classification of drugs

**RECOMMENDED BOOKS:**

Lippincott's pharmacology (Text Book) by Mycek 2<sup>nd</sup> edition 2000 published by Lippincott Raven

Katzung textbook of pharmacology (Reference Book) by Bertram Katzung 8<sup>th</sup> Edition published by Appleton.

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-4: PAKSTUDY (2<sup>nd</sup> SEMESTER)**

**CREDIT HOURS: 3 MARKS 50**  
**INTERNAL MARKS 40 EXTERNAL MARKS 60 TIME: 3 HRS**

**OBJECTIVE:**

To introduce to the student the significant of Pak Study B.Sc level course

**COURSE CONTENT:**

- I. **Chapter One**  
Ideology of Pakistan
- II. **Chapter Two**  
Background of ideology of Pakistan
  - a. Reformation movement
  - b. Educational movement
  - c. Political movement
- III. **Chapter Three**  
Movement of Pakistan (Since Allama Iqbal Address at Ala Bad 1930 till 4<sup>th</sup> August 1947)
- IV. **Chapter Four**  
Establishment of Pakistan (Political, Social Financial Problems)
- V. **Chapter Five**  
Constitutional and Political Developments in Pakistan
- VI. **Chapter Five**  
Geographical condition of Pakistan
- VII. **Chapter Seven**  
Pakistan and Muslim world

**RECOMMENDED BOOKS:**

Pakistan Studies Compulsory for Degree Courses by Dr. Noshaad Khan

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-5: BIOCHEMISTRY -II (2<sup>nd</sup> SEMESTER)**

**CREDIT HOURS: 3+1**

**MARKS 100**

**INTERNAL MARKS 40**

**EXTERNAL MARKS 60**

**TIME: 3 HRS**

**OBJECTIVE:**

The introduction of knowledge subject of biochemistry to student regarding its importance in understanding the other domains of medical science and regarding the applications of the subject and to know about the recent developments in the field of biochemistry.

**COURSE CONTENT:**

1. Nutrition food and dietetics
2. Metabolism
3. Body fluids
4. Acid base balance
5. Minerals

**RECOMMENDED BOOKS:**

Harper's text book of Biochemistry (Text Book) by Bertram Katzung 1992 published by Appleton Lange.

Biochemistry for Paramedics by Dr. Khalid Mehmood 2005 published by UB agency Peshawar.

**Prepared By:**

**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-6: COMPUTER SKILLS-II (2<sup>nd</sup> SEMESTER)****CREDIT HOURS: 3+1****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS****OBJECTIVE:**

To introduce the students the significance of the subject of computer definitions, history, types and component, hardware and software application.

**COURSE CONTENT:****Application software**

Microsoft word

Microsoft power point

Microsoft excel

Microsoft Definition of computer

5. History of computer
6. Classification of computer
7. Components of computer

**Hardware and Software**

5. Physical components of computer
6. Logical component of computer
7. System software
8. Application software

**Storage devices**

4. Magnetic storage devices
5. Optical storage devices
6. Memories

**RECOMMENDED BOOKS:**

Fundamental of I.T concept by Nayyar Kanwal by CECOSE University Teacher's notes

**Prepared By:****Hafeez Institute of Medical Sciences Peshawar**



**3<sup>rd</sup> SEMESTER****PAPER – 1:- ANATOMY RELATED TO ANESHTESIA****CREDIT HOURS: 3+1****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS****COURSE OBJECTIVE:**

To introduce the students the significance of the human respiratory anatomy related to the anesthesia and his application, students the significance of human Nerves System related to Anesthesia, students the significance of the human Cardiovascular System Anatomy related to the Anesthesia and its application of applied works.

**COURSE CONTENT:**

Definitions and structures of the respiratory system

Mouth, nose, pharynx, larynx

Relation of larynx, cartilages of larynx, ligaments, muscles, blood supply, lymphatic drainage and nerves supply

Trachea and bronchial tree

Division, relations, blood supply, nerve supply

Lymphatic drainage

Lungs

Structure, lobes, blood supply, nerve supply, Lymphatic drainage

Mediastinum

Parts, contents of mediastinum

**Nerve system**

1. Brain, Spinal Cord
2. Menegies
3. Vertebral Column
4. Spinal Nerves, Cranial verves
5. Autonomic N/System (Sympathetic and Para Sympathetic N/S Cardiovascular system)
  1. Definition and Structures of the Cardiovascular System Anatomy.
  2. Heart
  - Valves

Conducting system

3. X.Ray marking of heart border
4. Congenital abnormalities

**RECOMMENDED BOOKS:**

Clinical anatomy by Snell 7<sup>th</sup> Edition 2000 by Churchill Living Stone

**Referral Book**

Gray's anatomy by Roger War Wick Peter L. William in 1973 by Long Man group Ltd.

**Prepared By:**

**Hafeez Institute of Medical Sciences Peshawar**

**Paper – 2 :- PHYSIOLOGY OF RESPIRATORY SYSTEM**

<b>CREDIT HOURS:</b>	<b>3+1</b>	<b>MARKS 100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS 60</b>
		<b>TIME: 3 HRS</b>

**COURSE OBJECTS:**

To introduce to the students the significance of human Respiratory, nerves, cardiovascular system physiology related to the Anaesthesia

**COURSE CONTENTS:**

Definition and Physiology of respiratory system:

- Control of respiration
- Mechanism of respiration,
- Tidal volume, reserve volume, expiratory reserve volume,
- Residual volume, Lung capacities
- Dead space/ shunt, Surfactants
- Respiratory Reflexes
- Cough reflexes, sneezing reflexes, Laryngo spasm
- Gases exchanges & carriage

**Cardiovascular system**

Definition and Physiology of the Cardiovascular System

1. Heart Rate Regulation
2. Cardiac Performance
  - a. Preload , b. After load, c. Myo Cardiac Contractility
3. Coronary Circulation
4. Cardiac output and regulating factors
5. Arterial blood pressure and regulating factors
6. ECG.

Nerves system Function of brain

Cerebral spinal fluids

Cerebral circulation

Synapses

Receptors

Neuro muscular junction

Intracranial pressure

**RECOMMENDED BOOKS:**

Text book of medical physiology by Guyton in 1994 Saunders company Philadelphia PA. Essentials of medical physiology Volume 1-2 Mustafa Ahmad in 2005 published by MERIT Multan

**Prepared By:**

**Hafeez Institute of Medical Sciences Peshawar**

**PAPER – 3: BASIC EPIDEMIOLOGY -I (3<sup>rd</sup> SEMESTER)**

<b>CREDIT HOURS:</b>	<b>3+1</b>	<b>MARKS</b>	<b>100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS</b>	<b>60</b>
		<b>TIME:</b>	<b>3 HRS</b>

**COURSE OBJECTIVE:**

To introduce to the students the know-how of the subject of epidemiology in order to apply the knowledge of the subject regarding the community and community relate disease.

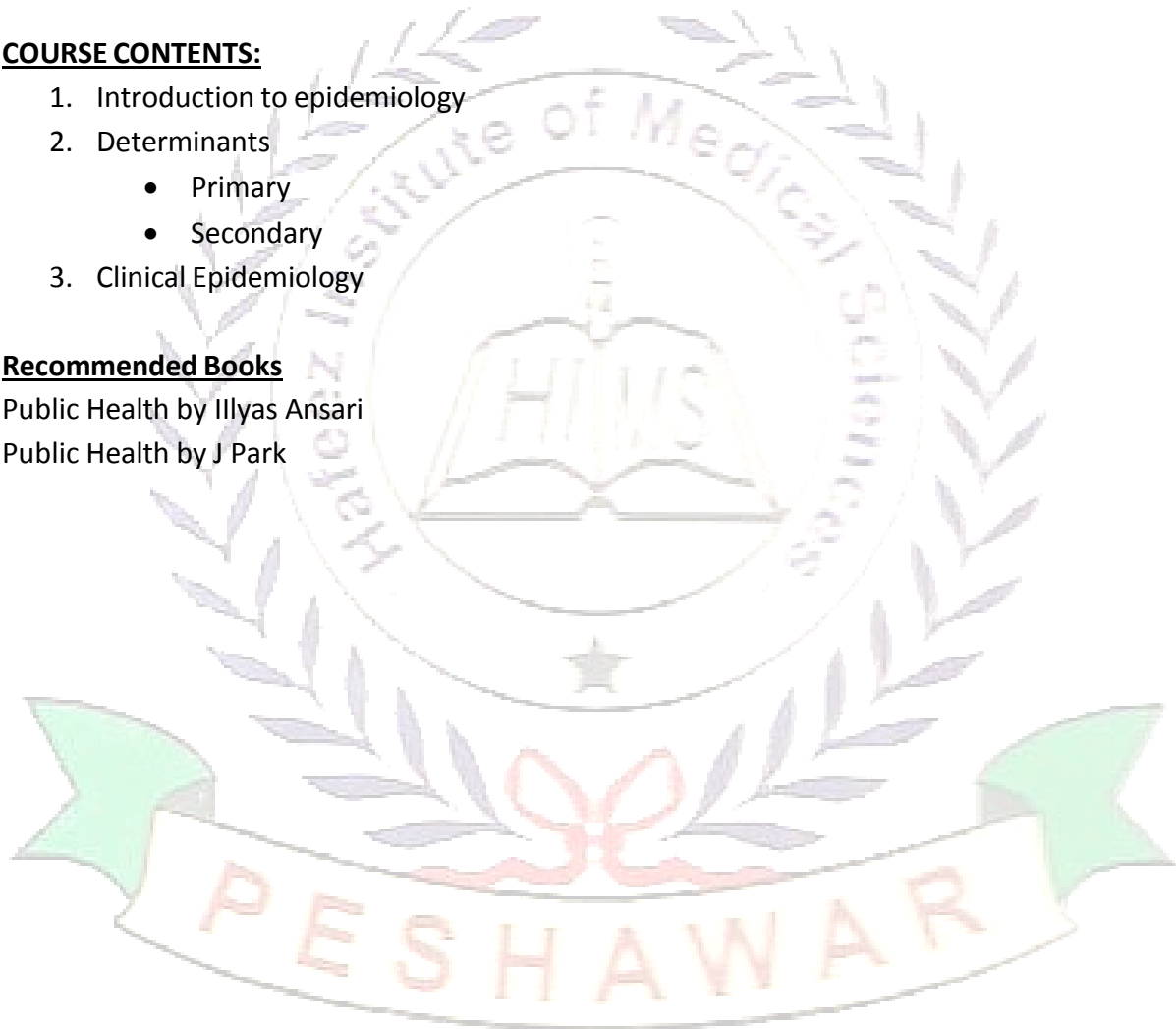
**COURSE CONTENTS:**

1. Introduction to epidemiology
2. Determinants
  - Primary
  - Secondary
3. Clinical Epidemiology

**Recommended Books**

Public Health by Illyas Ansari

Public Health by J Park



**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER – 4 :- SOCIOLOGY -I (3<sup>rd</sup> SEMESTER)**

<b>CREDIT HOURS:</b>	<b>3+1</b>	<b>MARKS 100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS 60</b>
		<b>TIME: 3 HRS</b>

**COURSE OBJECTIVE:**

To produce to the students the significance of definition and scope of sociology as a science, their relation with other sciences.

**COURSE CONTENTS:**

1. **General**  
Definition and scope of sociology, sociology is a science, Islamic Sociology
2. **Medical Sociology**  
Introduction contribution of sociology to medicine
3. **Health and Disease**  
Social definition of illness, social and emotional component of illness
4. **Patient and paramedic**  
Paramedics view of disease and patient, psychology of patient/paramedic relationship
5. **Mental illness sociological perspective**  
Definitions, social implication of mental illness
6. **Rehabilitation**  
Definition, physical, mental handicap  
Method in rehabilitation: Guidance counseling and vocational training

**Recommended Books**

Medical sociology by William C Cuckerham in 1978 printed by USA Health education by Lurna Robinson Wesley F Alles in 1994 by Times Mirror/Mosby College Publishing ST Liois Turonto

**Reference Book:**

Social psychology of health by Shirlynn Spacapan Stuart Oskanp Edition by SAGE publication New Delhi, New York, in 1987

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER – 6 :- BIostatISTICS -I (3<sup>rd</sup> SEMESTER)**

<b>CREDIT HOURS:</b>	<b>3+1</b>	<b>MARKS</b>	<b>100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS</b>	<b>60</b>
		<b>TIME:</b>	<b>3 HRS</b>

**COURSE OBJECTIVE:**

To introduce to the students the significance of bio-statistics their topic in univariate statistics means basic concept, describing and exploring data, normal distribution, sampling distribution and hypothesis testing, basic concept of probability and categorical data CH and application of statistics and social research.

**COURSE CONTENTS:**

Topics in univariate statistics

**A. Basic**

1. Introduction
2. Important terms
3. Senses
4. Method uses for taking senses, information collection during senses, method of estimating the population of any year
5. Measurement scale

**B. Describing and Exploring Data**

1. Measures of central tendency and variability
2. Health Statistics (Preparation, ration, rate)
3. Percentiles, quartiles and deciles

**RECOMMENDED BOOKS**

Statistical methods for psychology by Howell DC in 1992 publisher by Belmont CA Duxby press USA

A guide to research methodology, biostatistics and medical writing by college of physicians and surgeons Pakistan by WHO collaboration center

Reading understanding multivanant statistics giimm LG Yard AD PR, in 1995 publisher American Psychological association

Ilyas Ansari's community medicine (Text Book) by Ilyas and Ansari 2003 published by Medical division Urdu Bazaar Karachi.

**Prepared By:**

**Hafeez Institute of Medical Sciences Peshawar**

**4<sup>th</sup> SEMESTER****PAPER-I:****ZONES OF INTEREST TO ANESTHESIA, EQUIPMENT  
AND CLINICAL PRACTICE IN SURGERY UROLOGY AND ENT OT****CREDIT HOURS: 3+1****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS****COURSE OBJECTIVES:**

To introduce to the students the significance of human different zones to the Anesthesia point of views and anesthesia machine operating and practical work in general surgery, urology and ENT OT

**COURSE CONTENTS:**

- Diaphragm
- Intercostals Space
- Antecubital Fossa
- Thorasic Inlet

Use of Anesthesia machines, different circuits, drugs preparation & labling Use of stethoscope for COPD and hearts beats and hearts murmur; use of BP apparatus, techniques of anesthesia, different types of Lryngoscopes & their blades, different types of Endotrochial tubes, Embu beg, maintenance of I/V lines

**RECOMMNEDED BOOK:**

Clinical anatomy by Snell 7<sup>th</sup> edition 2000 by Churchill living stones

Clinical anesthesiology by Morgon publisher MC Graw health 3<sup>rd</sup> edition in 2005

Text of anesthesia by Alan R. Atkin by Churchill living stone 4 edition in 2005

**Prepared By:****Hafeez Institute of Medical Sciences Peshawar**

**PAPER – 2:- ANESTHESIA EQUIPMENT AND CLINICAL PRACTICAL IN ORTHOPEDIC,  
EYE AND GYNAE OT**

**CREDIT HOURS: 3+1**

**MARKS 100**

**INTERNAL MARKS 40**

**EXTERNAL MARKS 60**

**TIME: 3 HRS**

**COURSE OBJECTIVE:**

Introduce to the students the significance of Eye and Gynae O.T.

Anesthesia point of view, the significance of orthopedic O.T. As

Anesthesia point of view

**COURSE CONTENTS**

1. Anesthesia Machines Setup
2. Equipments of Anesthesia
3. Drugs / Dilution
4. Labeling
5. Investigations of patients
6. History of patients
7. Preparation of patients
8. I/V Line
9. Care and maintenance of anesthesia equipments
10. Mix drugs and labeling
11. Keep record of cases and any complication during anesthesia
12. Investigation of the patient
13. History of patient

**RECOMMENDED BOOKS:**

Clinical anesthesiology by Morgon publisher MC Graw health 3<sup>rd</sup> edition in 2005

Text of anesthesia by Alan R. Atkin by Churchil living stone 4 edition in 2005

Medical ethic by Dr. Mehmood Alam in 2006 by Health department NWFP

**Prepared By:**

**Hafeez Institute of Medical Sciences Peshawar**

**PAPER – 3 :- BASIC EPIDEMIOLOGY -II (4<sup>th</sup> SEMESTER)**

<b>CREDIT HOURS:</b>	<b>3+1</b>	<b>MARKS</b>	<b>100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS</b>	<b>60</b>
		<b>TIME:</b>	<b>3 HRS</b>

**COURSE OBJECTIVE:**

To introduce to the students the know-how of the subject of epidemiology in order to apply the knowledge of the subject regarding the community and community related disease.

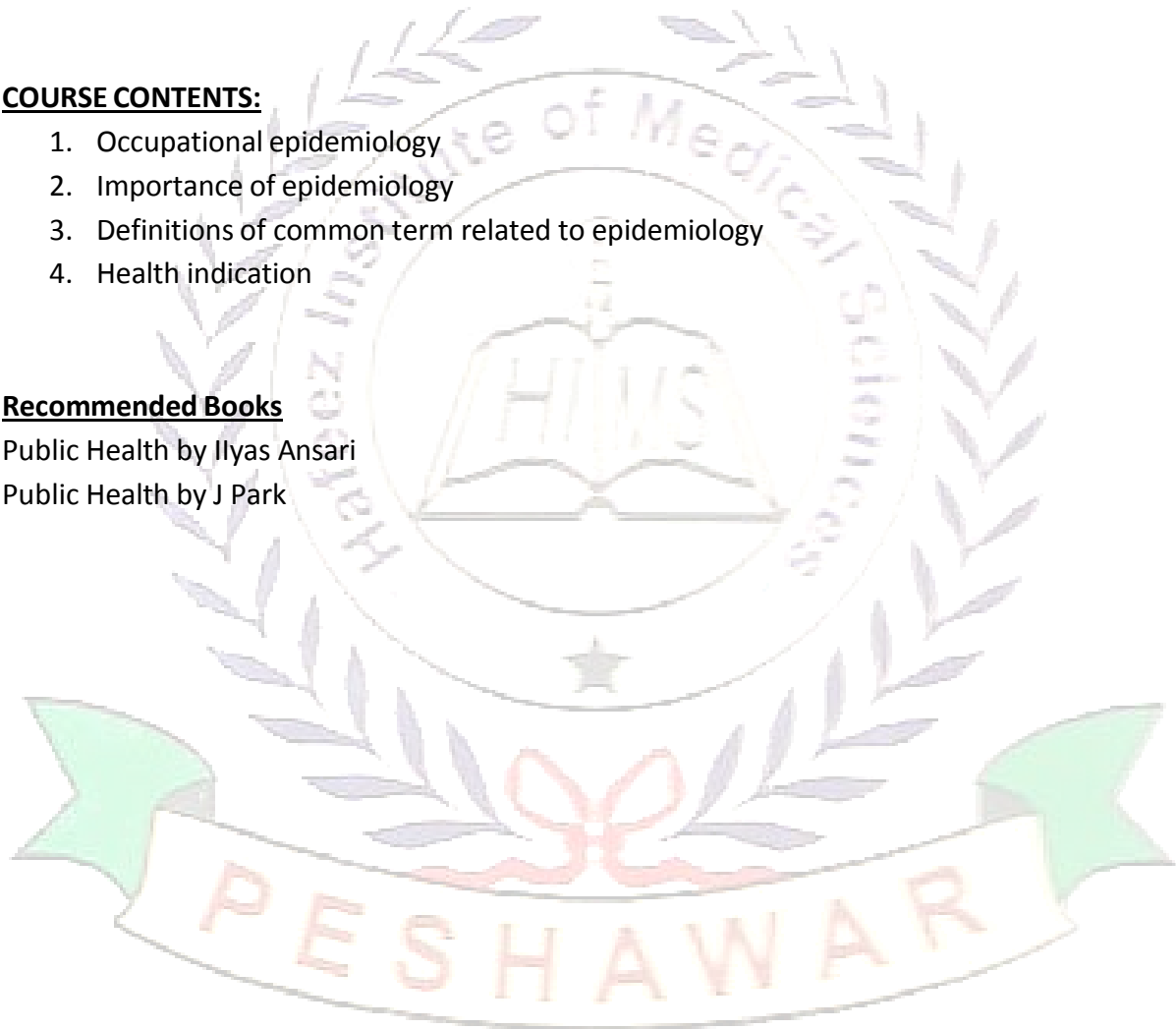
**COURSE CONTENTS:**

1. Occupational epidemiology
2. Importance of epidemiology
3. Definitions of common terms related to epidemiology
4. Health indicators

**Recommended Books**

Public Health by Ilyas Ansari

Public Health by J Park



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**Hafeez Institute of Medical Sciences Peshawar**



**PAPER – 4 :- SOCIOLOGY -II (4<sup>th</sup> SEMESTER)**

<b>CREDIT HOURS:</b>	<b>3+1</b>	<b>MARKS</b>	<b>100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS</b>	<b>60</b>
		<b>TIME:</b>	<b>3 HRS</b>

**COURSE OBJECTIVE:**

To produce to the students the significance of definition and scope of sociology as a science, their relation with other sciences.

**COURSE CONTENTS:**

- 1. Social disorganization**  
The concept and factor of social organization, family, group and community disorganization
- 2. Problem of community**  
Problem of crime, method of treatment and preventative measure
- 3. Education Problems**  
Deterioration of education standard in school, college and university
- 4. Health Problems**  
Illness behavior, delivery and utilization of health services
- 5. Introduction to applied sociology**  
Definition of applied sociology, nature and causative analysis of social problem and the role of sociologist in solving social problems
- 6. Application of social research in social problems**  
Social servu and social research, nature purpose and function

**Recommended Books**

Medical sociology by William C Cuckerham in 1978 printed by USA Health education by Laurna Robinson Wesley F Alles in 1994 by Times Mirror/Mosby College Publishing ST Liois Turonto

**Reference Book:**

Social psychology of health by Shirlynn Spacapan Stuart Oskanp Edition by SAGE publication New Delhi, New York, in 1987

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-6: BIOSTATISTICS -II (4<sup>th</sup> SEMESTER)**

<b>CREDIT HOURS:</b>	<b>3+1</b>	<b>MARKS</b>	<b>100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS</b>	<b>60</b>
		<b>TIME:</b>	<b>3 HRS</b>

**COURSE OBJECTIVE:**

To introduce to the students the significance of bio-statistics their topic in univariate statistics means basic concept, describing and exploring data, normal distribution, sampling distribution and hypothesis testing, basic concept of probability and categorical data CH and application of statistics and social research.

**COURSE CONTENTS:**

Topics in univariate statistics

- A. Sampling distribution and hypothesis testing
- B. Basic concepts of probability
- C. Data collection (purpose and technique)
- D. Categorical data and numerical data
  - Application of statistics in social research
  - Percentages, measure of central tendencies
- A. Means, Median and Mode
- B. Quartile, decile and percentile

**RECOMMENDED BOOKS**

Statistical methods for psychology by Howell DC in 1992 publisher by Belmont CA Duxby press USA

A guide to research methodology, biostatistics and medical writing by college of physicians and surgeons Pakistan by WHO collaboration center

Reading understanding multivariate statistics giimm LG Yard AD PR, in 1995 publisher American Psychological association

Ilyas Ansari's community medicine (Text Book) by Ilyas and Ansari 2003 published by Medical division Urdu Bazaar Karachi.

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**5<sup>th</sup> SEMESTER****PAPER – I :- PHARMACOLOGY RELATED TO ANESTHESIA & CLINICAL PRACTICE**

**CREDIT HOURS: 3+1**  
**INTERNAL MARKS 40**

**MARKS 100**  
**TIME: 3 HRS**

**EXTERNAL MARKS 60**

**COURSE OBJECTIVE:**

To introduce the students about pain management during anesthesia, the significance of various drugs in anesthetics, the significance of Muscle relaxant used an anesthesia

**COURSE CONTENTS:**

Analgesic

1. Knowledge about the various drugs used during anesthesia for pain

Drugs:

Narcotic analgesic

Pharmacokinetics, Pharmacodynamics, Opioids receptors

Classification of opioids, Morphine, pethidine, Fentanyl, Tramadol

Remifentanyl, Pentazocine, Buprenorphine, Nalbuphine, Naloxone,

2. Non-narcotic analgesics

Non-steroidal anti-inflammatory drugs(NSAIDS)

Physiological actions

Unwanted actions

Drugs:

Diclofenac, Aspirin, Piroxicam, Ketorolac

Celecoxib, Meloxicam

**Muscle relaxants**

1. Knowledge about the muscle relaxant use in anaesthesia

Drugs:- 1. Depolarizing agents, 2. Non depolarizing agents, 3. Reversal agents

**RECOMMENDED BOOKS:**

Pharmacology and medical physiology in anesthesia by Robert K

Stonking in 1995 by Lippincott Williams and Wilkins

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**PAPER – 2 :- PRE-UP POST-UP MANAGEMENT AND CLINICAL PRACTICE IN NEUROSURGERY AND CARDIOTHORACIC (5<sup>th</sup> SEMESTER)**

**CREDIT HOURS: 3+1** **MARKS 100**  
**INTERNAL MARKS 40** **EXTERNAL MARKS 60** **TIME: 3 HRS**

**COURSE OBJECTIVE:**

To introduce the students the significance of anesthesia in neurosurgery and cardiothoracic

**COURSE CONTENTS:**

1. Set up of anesthesia machine
2. Check up anesthesia equipments
3. Patient history
4. Investigation of patient
5. Clinical examination of patient

**RECOMMEND BOOKS:**

Clinical anesthesiology by Morgon publisher MC Graw health 3<sup>rd</sup> edition in 2005

Text of anesthesia by Alan R. Atkin by Churchill living stone 4 edition in 2005



**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER – 3:- PRE-OPERATIVE MEDICATIONS, ASSESSMENTS AND CLINICAL PRACTICE IN CASUALTY (5<sup>th</sup> SEMESTER)**

**CREDIT HOURS: 3+1** **MARKS 100**  
**INTERNAL MARKS 40** **EXTERNAL MARKS 60** **TIME: 3 HRS**

**COURSE OBJECTIVE:**

To introduce pre medication assessment and management in casualty

**COURSE CONTENTS:**

1. Shock
2. Type of shock
3. Treatment of shock
4. Assessment of difficult airway
5. Laryngeal mask
6. Management of full stomach anesthesia
7. Blood transfusion, crystalloids colloids

**RECOMMENDED BOOKS:**

Clinical anesthesiology by Morgan publisher MC Graw health 3<sup>rd</sup> edition in 2005

Text of anesthesia by Alan R. Atkin by Churchill living stone 4 edition in 2005

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

PAPER-4:- PATHOLOGY -I (5<sup>th</sup> SEMESTER)

CREDIT HOURS: 3+1

MARKS 100

INTERNAL MARKS 40

EXTERNAL MARKS 60

TIME: 3 HRS

**COURSE OBJECTIVE:-**

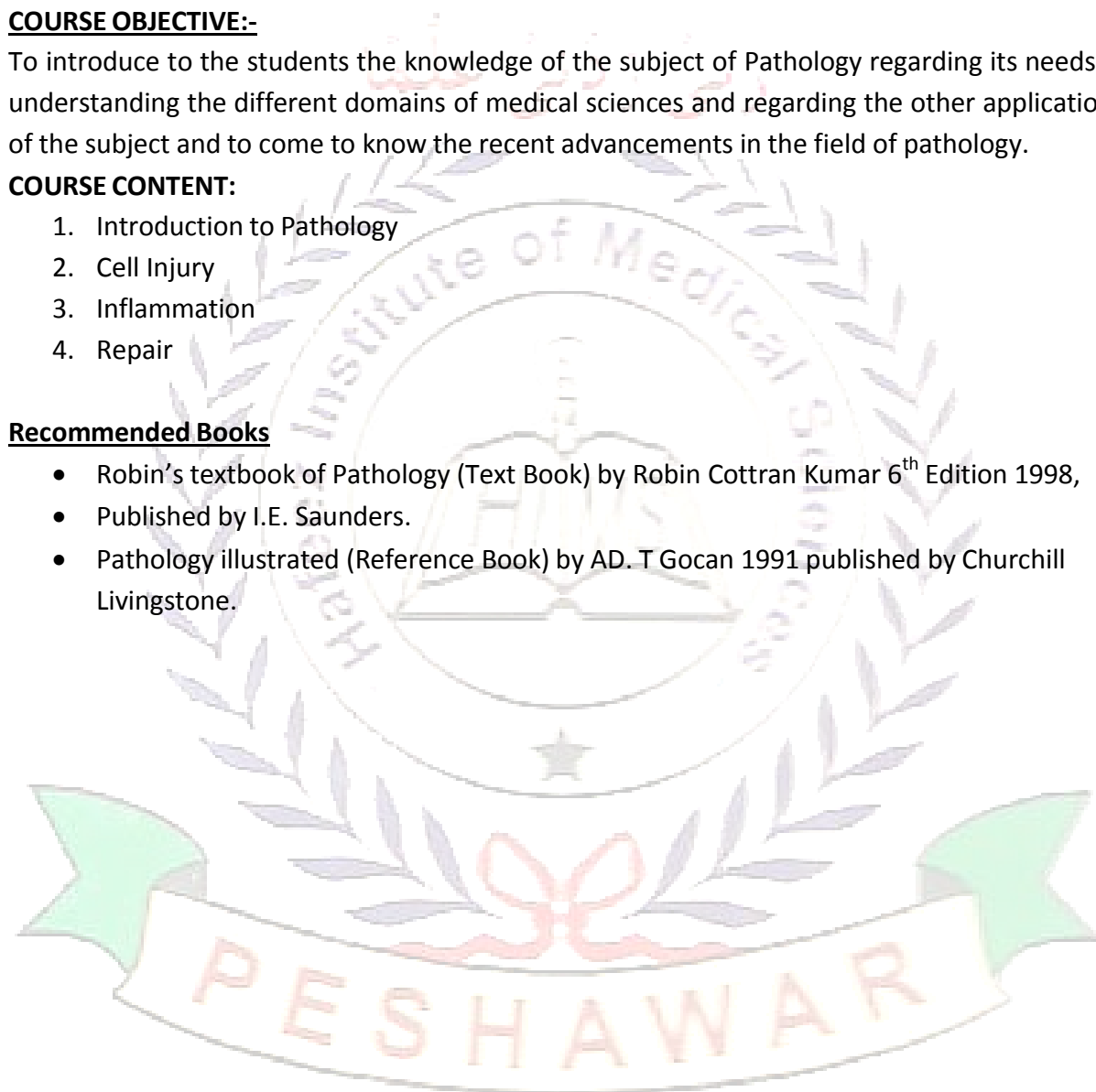
To introduce to the students the knowledge of the subject of Pathology regarding its needs in understanding the different domains of medical sciences and regarding the other applications of the subject and to come to know the recent advancements in the field of pathology.

**COURSE CONTENT:**

1. Introduction to Pathology
2. Cell Injury
3. Inflammation
4. Repair

**Recommended Books**

- Robin's textbook of Pathology (Text Book) by Robin Cottran Kumar 6<sup>th</sup> Edition 1998,
- Published by I.E. Saunders.
- Pathology illustrated (Reference Book) by AD. T Gocan 1991 published by Churchill Livingstone.



**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-5 BASIC COMMUNICATION SKILLS -I (5<sup>th</sup> SEMESTER)**

**CREDIT HOURS: 3**

**MARKS 100**

**INTERNAL MARKS 40**

**EXTERNAL MARKS 60**

**TIME: 3 HRS**

**COURSE OBJECTIVE:-**

To introduce to the students about the basic communication skill

**COURSE CONTENT:**

1. Definition of communication
2. Communication module
3. 7C, s of Communication
4. Social marketing
5. Mode of communication

**Recommended Books**

- Effective Business Communication
- Module or Ensure Public Participation by Dr. Muhammad Ilyas

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**Hafeez Institute of Medical Sciences Peshawar**

**6<sup>th</sup> SEMESTER****PAPER – I PHARMACOLOGY RELATED TO ANESTHESIA & CLINICAL PRACTICE****CREDIT HOURS: 3+1****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS****COURSE OBJECTIVE:**

To introduce the students about pain management during anesthesia, the significance of various drugs in anesthetics, the significance of Muscle relaxant used an anesthesia

**COURSE CONTENTS:****Anesthetic drugs**

1. Local anesthetics
  - Mode of action
  - Systemic toxicity and treatment
  - Drugs
    - Xylocaine
    - Bupivacaine
    - Rupivacaine
2. General anaesthetics
  - Mode of action
  - Systemic toxicity and treatment
  - Drugs
    - Inhalational anaesthetic
      - Halothane, Isoflurane
      - Influrane, sevoflurane
      - Nitrous oxide
    - Intravenous anaesthetic
      - Tiopental sodium
      - Propofol, etomidate
      - Katamine

**RECOMMENDED BOOKS:**

Pharmacology and medical physiology in anesthesia by Robert K  
Stonlting in 1995 by Lippin Cott William s and Walkins

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**PAPER – 2:- PRE-UP POST-UP MANAGEMENT AND CLINICAL PRACTICE IN  
NEUROSURGERY AND CARDIOTHORACIC 6<sup>th</sup> SEMESTER**

**CREDIT HOURS: 3+1 MARKS 100**  
**INTERNAL MARKS 40 EXTERNAL MARKS 60 TIME: 3 HRS**

**COURSE OBJECTIVE:**

To introduce the students the significance of anesthesia in neurosurgery and cardiothoracic

**COURSE CONTENTS:**

1. Choice of drugs for neurosurgery and cardiothoracic anesthesia
2. I/V line
3. Care of patient during anesthesia
4. Patient consents for anesthesia

**RECOMMEND BOOKS:**

Clinical anesthesiology by Morgon publisher MC Graw health 3<sup>rd</sup> edition in 2005

Text of anesthesia by Alan R. Atkin by Churchill living stone 4 edition in 2005



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**PAPER – 3: - PRE-OPERATIVE MEDICATIONS, ASSESSMENTS &  
CLINICAL PRACTICE IN CASUALTY 6<sup>th</sup> SEMESTER**

**CREDIT HOURS: 3+1 MARKS 100**  
**INTERNAL MARKS 40 EXTERNAL MARKS 60 TIME: 3 HRS**

**COURSE OBJECTIVE:**

To introduce pre medication assessment and management in casualty

**COURSE CONTENTS:**

1. CPR
2. Benzodapines
3. Opioids
4. Anticholinergics
5. Betablockers
6. Inatrops

**RECOMMENDED BOOKS:**

Clinical anesthesiology by Morgan publisher MC Graw health 3<sup>rd</sup> edition in 2005

Text of anesthesia by Alan R. Atkins by Churchill living stone 4 edition in 2005



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**PAPER-4      PATHOLOGY -II      6<sup>th</sup> SEMESTER**

**CREDIT HOURS: 3+1      MARKS 100**  
**INTERNAL MARKS 40      EXTERNAL MARKS 60      TIME: 3 HRS**

**COURSE OBJECTIVE:-**

To introduce to the students the knowledge of the subject of Pathology regarding its needs in understanding the different domains of medical sciences and regarding the other applications of the subject and to come to know the recent advancements in the field of pathology.

**COURSE CONTENT:**

1. Homodynamic Disorders
2. Disorders of Immunity
3. Neoplasia
4. Microbiology

**Recommended Books**

- Robin's textbook of Pathology (Text Book) by Robin Cottran Kumar 6<sup>th</sup> Edition 1998, Published by I.E. Saunders.
- Pathology illustrated (Reference Book) by AD. T Gocan 1991 published by Churchill Livingstone.

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PAPER-5      BASIC      COMMUNICATION SKILLS -II      6<sup>th</sup> SEMESTER

CREDIT HOURS:      3      MARKS 100  
INTERNAL MARKS      40      EXTERNAL MARKS 60      TIME: 3 HRS

**COURSE OBJECTIVE:**

To introduce the student about the basic communication skill

**COURSE CONTENTS:**

1. Media & communication & Counseling
2. Health Education & Motivation
3. Participation involvement
4. Obstacle communication
5. Interpersonal communication & counseling

**Recommended Books**

- Effective Business Communication
- Module or Ensure Public Participation by Dr. Muhammad Ilyas

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**Hafeez Institute of Medical Sciences Peshawar**

**7<sup>th</sup> SEMESTER**

**PAPER-I: DIFFERENT TYPES OF ANESTHESIA AND CLINICAL PRACTICE**  
**IN PRE-UP AND RECOVERY ROOM** **7<sup>th</sup> SEMESTER**

**CREDIT HOURS: 3+1** **MARKS 100**  
**INTERNAL MARKS 40** **EXTERNAL MARKS 60** **TIME: 3 HRS**

**COURSE OBJECTIVES:**

To introduce different types of anesthesia, anaesthetized the patient in surgical procedure under the supervision of anesthetics and Pre-up recovery

**COURSE CONTENT:**

General anesthesia

Local anesthesia

Regional anesthesia

Epidurals anesthesia

Spinal anesthesia

Cardial anesthesia

Dental anesthesia

**RECOMMENDED BOOKS:**

Clinical anesthesiology by Morgon publisher MC Graw health 3<sup>rd</sup> edition in 2005

Text of anesthesia by Alan R. Atkin by Churchill living stone 4 edition in 2005

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**



**PAPER – 3 :- SPECIALIZED PRACTIC I IN ANESTHESIA INDIFFERENT OT'S****7<sup>th</sup> SEMESTER****CREDIT HOURS: 3+1****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS****COURSE OBJECTIVE:**

Knowledge about the role of graduate anesthesia students

**COURSE CONTENTS:**

1. Clinical methods (use of stethoscope, BP apparatus)
2. Pre operative assessment
3. Self confidence of students in General Surgery, Gynae and ENT, Eye OT

**RECOMMENDED BOOKS:**

Clinical anesthesiology by Morgon publisher MC Graw health 3<sup>rd</sup> edition in 2005

Text of anesthesia by Alan R. Atkin by Churchill living stone 4 edition in 2005

The current advance in anesthesia by Atkin Son in 1989 by Churchill living stone

Practice of anesthesia by David son, in 1996 by LG New Delhi

**Prepared By:****Hafeez Institute of Medical Sciences Peshawar**

**PAPER-4:****PUBLIC HEALTH -I****7<sup>th</sup> SEMESTER****CREDIT HOURS: 3+1****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS****COURSE OBJECTIVE:**

To introduce to the student the significance of the discipline of public health in medical and applied social sciences regarding its history applications and development.

**COURSE CONTENTS:**

1. Basic definition
2. Primary health care
3. Nutrition
4. Water supply
5. Sanitation
6. Mother and child health (MCH)
7. Family planning

**Recommended Books**

- Ilyas Ansari's community medicine (Text Book) by Ilyas and Ansari 2003 published by Medical division Urdu Bazaar Karachi
- K Park's community medicine (Reference Book) by K Park 2003 Published by Banarside Bhanot Jaipur India.

**Prepared By:****Hafeez Institute of Medical Sciences Peshawar**



**PAPER-5: RESEARCH METHODOLOGY -I (7<sup>th</sup> SEMESTER)**

<b>CREDIT HOURS:</b>	<b>3</b>		<b>MARKS 100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS 60</b>	<b>TIME: 3 HRS</b>

**COURSE OBJECTIVE:**

Introduction the students a significance of research methodology to the students foundation, concept of measurement, design clinical research and health system research.

**COURSE CONTENTS:**

**PART – 1 FOUNDATION**

Introduction to research (in simple term and a scientific term), concept of research, why do need research, advantage of research, identification of research need and its qualities, component of research, ethical and legal aspect of research and objective of research (definition, purpose, structure)

**PART 2**

**(A) SELECTION OF TOPIC**

**The criteria points of prioritization of topic**

1. Relevance      ii. Avoidance of duplication      iii. Physibility      IV. Political acceptability
  - v. applicability      VI. Cost efficiencies      vii. Ethical consideration and scales
- for rating research topic mentioned above

**WORK PLAN**

Its contents, how to developed a work plan, what factor should be kept in mind while preparing research work plan

© **BUDGET REQUIRED FOR RESEARCH WORK**

Why it is needed, wok should be taken into consideration, literature searching, statistical help, material, type of manuscript, printing of manuscript for submission and postage

**Recommended Books**

- Foundation of Clinical Research by Portney LG Walkais MP in 1993, Publisher by Appleton and lauge USA
- A guide to Research Methodology, Biostatistics and Medical writing by college of physicians and surgeons Pakistan by WHO collaboration center
- Health system research project by Corlien M Varkerisser, Indra Pathmanathan, Ann Brownlee in 1993 by International Development Research Center in New Delhi, Singapore.

**Prepared By:**

**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-6:            ETHICS & MANAGEMENT -I            7<sup>th</sup> SEMESTER**

<b>CREDIT HOURS:</b>	<b>3</b>		<b>MARKS 100</b>
<b>INTERNAL MARKS</b>	<b>40</b>	<b>EXTERNAL MARKS 60</b>	<b>TIME: 3 HRS</b>

**COURSE OBJECTIVE:**

To introduce to the student of medical ethics their behavior with patients and medical staff and management of different wards, departments includes the equipments records and their duties.

**COURSE CONTENTS:****Ethics:-**

Ethical conduct, relationship with patient, surgeon, physician, nurse, social workers and co-workers, preparation and uses of records, report, physical plant, equipments.

The implementation of and confirmation to the rules of professional context and understanding, the paramedic liability and obligations in the case of medico legal action, a wider knowledge of ethics relating to current social and medical policy in the paramedic society as a professional association, the role of international health agencies such as world health organization.

**Recommended Books**

Management A modern hospital by AV Srinivasa response book sage publication New Delhi London and 2005

Hand book of hospital personal management by RC Goyal prentice Hall of India New Delhi in 1994

Medical ethic by Dr. Mehmood Alam in 2006 by Health Department KPK

**Prepared By:****Hafeez Institute of Medical Sciences Peshawar**

**8<sup>th</sup> SEMESTER**

**PAPER – 1 :- DIFFERENT TYPES OF ANESTHESIA AND CLINICAL PRACTICE IN PRE-UP AND RECOVERY ROOM**

**CREDIT HOURS: 3+1 MARKS 100**  
**INTERNAL MARKS 40 EXTERNAL MARKS 60 TIME: 3 HRS**

**COURSE OBJECTIVES:**

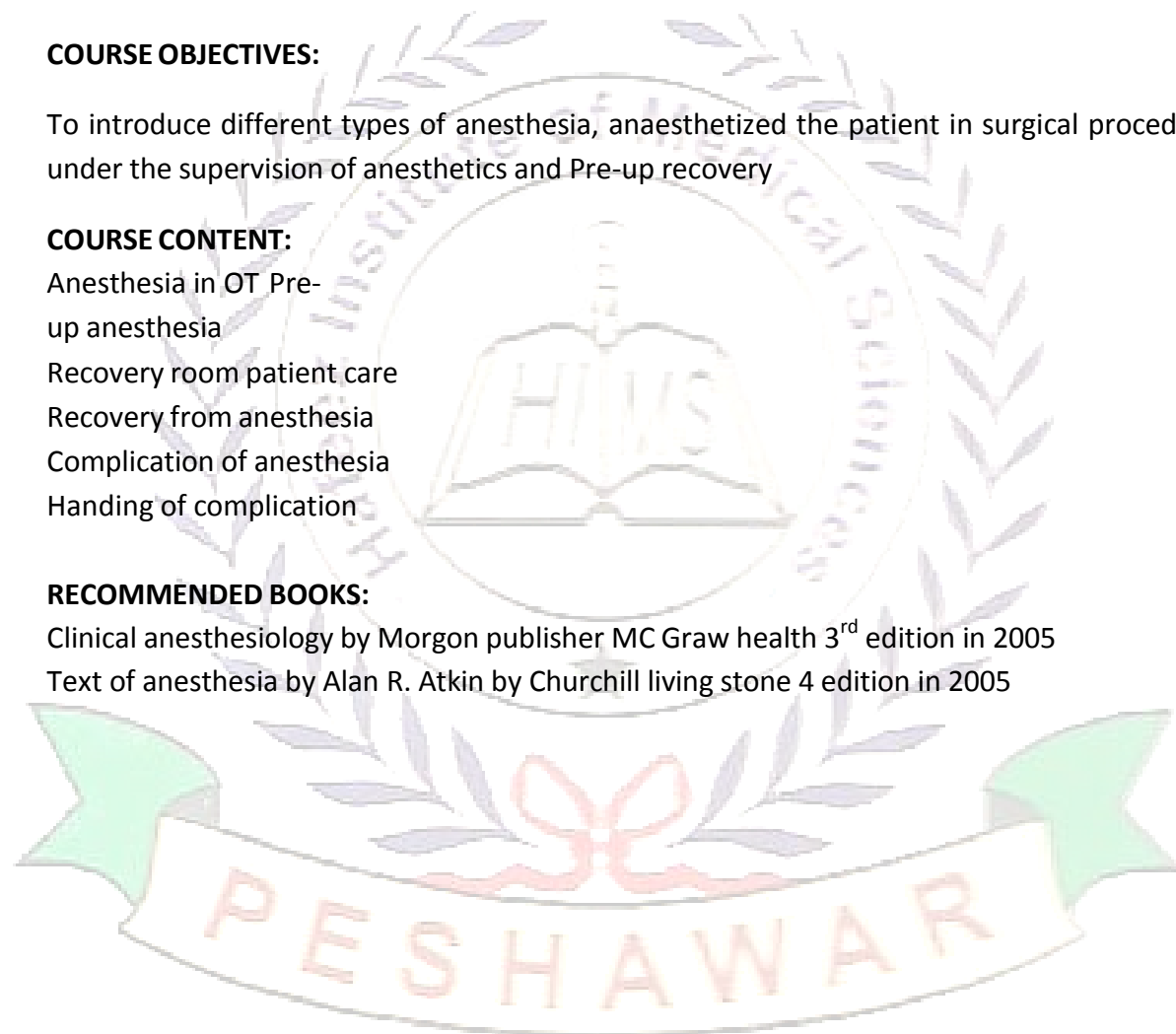
To introduce different types of anesthesia, anaesthetized the patient in surgical procedure under the supervision of anesthetists and Pre-up recovery

**COURSE CONTENT:**

Anesthesia in OT Pre-up anesthesia  
 Recovery room patient care  
 Recovery from anesthesia  
 Complication of anesthesia  
 Handling of complication

**RECOMMENDED BOOKS:**

Clinical anesthesiology by Morgan publisher MC Graw health 3<sup>rd</sup> edition in 2005  
 Text of anesthesia by Alan R. Atkin by Churchill living stone 4 edition in 2005



**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER – 2:- ANESTHESIA AND CO-EXISTING DISEASES II AND CLINICAL PRACTICE**

**CREDIT HOURS: 3+1 MARKS 100**  
**INTERNAL MARKS 40 EXTERNAL MARKS 60 TIME: 3 HRS**

**COURSE OBJECTIVE:**

To introduce the students about anesthesia in Co-existing diseases

**COURSE CONTENTS:**

Helpatic failure  
Chronic renal failure  
Obstetrical anaesthesia  
Anaesthesia for ENT  
Anaesthesia for Eye  
Anaesthesia for neurosurgery  
Anaesthesia for cardiothorasic surgery

**RECOMMENDED BOOKS:**

Clinical anesthesiology by Morgon publisher MC Graw health 3<sup>rd</sup> edition in 2005  
Text of anesthesia by Alan R. Atkin by Churchill living stone 4 edition in 2005  
The current advance in anesthesia by Atkin Son in 1989 by Churchill living stone  
Practice of anesthesia by David son, in 1996 by LG New Delhi



**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

**PAPER – 3:- SPECIALIZED PRACTICE II IN ANESTHESIA IN DIFFERENT OT'S**

**CREDIT HOURS: 3+1**

**MARKS 100**

**INTERNAL MARKS 40**

**EXTERNAL MARKS 60**

**TIME: 3 HRS**

**COURSE OBJECTIVE:**

Knowledge about the role of graduate anesthesia students

**COURSE CONTENTS:**

Keep record of cases and any other complication

Administration of general and regional anesthesia under the observation of anesthesia consultant in cardiothoracic Orthopedics, neurosurgery and intensive care unit

**RECOMMENDED BOOKS:**

Clinical anesthesiology by Morgon publisher MC Graw health 3<sup>rd</sup> edition in 2005

Text of anesthesia by Alan R. Atkin by Churchill living stone 4 edition in 2005

The current advance in anesthesia by Atkin Son in 1989 by Churchill living stone

Practice of anesthesia by David son



**Prepared By:**

**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-4:-****PUBLIC HEALTH -II****8<sup>th</sup> SEMESTER****CREDIT HOURS: 3****MARKS 100****INTERNAL MARKS 40****EXTERNAL MARKS 60****TIME: 3 HRS**

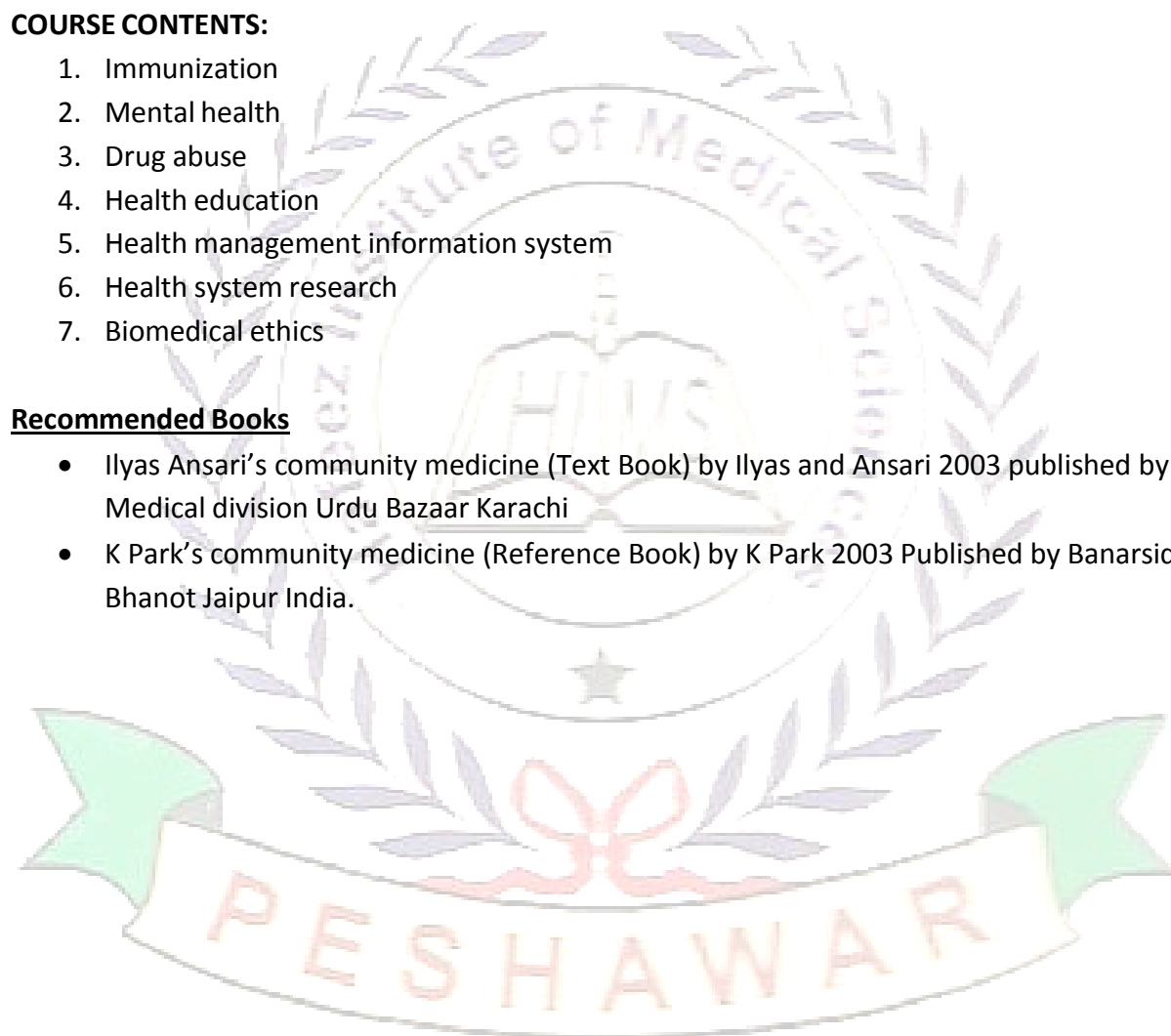
To introduce to the student the significance of the discipline of public health in medical and applied social sciences regarding its history applications and development.

**COURSE CONTENTS:**

1. Immunization
2. Mental health
3. Drug abuse
4. Health education
5. Health management information system
6. Health system research
7. Biomedical ethics

**Recommended Books**

- Ilyas Ansari's community medicine (Text Book) by Ilyas and Ansari 2003 published by Medical division Urdu Bazaar Karachi
- K Park's community medicine (Reference Book) by K Park 2003 Published by Banarside Bhanot Jaipur India.



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**Hafeez Institute of Medical Sciences Peshawar**

**PAPER-5: RESEARCH METHODOLOGY -II 8<sup>th</sup> SEMESTER**

**CREDIT HOURS: 3 MARKS 100**  
**INTERNAL MARKS 40 EXTERNAL MARKS 60 TIME: 3 HRS**

**COURSE OBJECTIVE:**

Introduction the students a significance of research methodology to the students foundation, concept of measurement, design clinical research and health system research.

**COURSE CONTENTS:**

**PART – 3**

**CONCEPTS OF MEASUREMENT**

Principals and reliability of measurement, errors and sources of measurement, types of measurement, measure of disease frequency and screening, (introduction, validity and screening test)

**DESIGNING CLINICAL RESEARCH**

Studies design (introduction, selection of design), research questionnaire, validity and reliability of research finding, confounding factors, strategies to deal with threats to validity.

**Recommended Books**

Foundation of Clinical Research by Portney LG Walkais MP in 1993, Publisher by Appleton and lauge USA

A quide to Research Methodology, Biostatistics and Medical writing by college of physicians and surgeons Pakistan by WHO collaboration center

Health system research project by Corlien M Varkerisser, Indra Pathmanathan, Ann Brownlee in 1993 by International Development Research Center in New Delhi, Singapore.

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**

PAPER-6:- ETHICS & MANAGEMENT -II 8<sup>th</sup> SEMESTER

**CREDIT HOURS:** 3 **MARKS** 100  
**INTERNAL MARKS** 40 **EXTERNAL MARKS** 60 **TIME:** 3 HRS

**COURSE OBJECTIVE:**

To introduce to the student of medical ethics their behavior with patients and medical staff and management of different wards, departments includes the equipments records and their duties.

**COURSE CONTENTS:**

**Management:-**

Identify the features of a health care system and desirable role and function of paramedical within the system, the inter relationship of all levels of health care identify function, organization and inter relationship of departments in a health care facility, the rules and functions of paramedic in community, provincial and federal, resources available to the patient, chronically ill and elderly citizens, professional institutional and government measures to safe guard patients and control of quality care, the roles and functions of professional associations.

**Principles of Management**

Eliminatory features of hospital ward, unit and factors (budgetary, architectural and personnel) quality control total quality control, control, continuous quality control.

**Recommended Books**

Management A modern hospital by AV Srinivasa response book sage publication New Delhi London and 2005

Hand book of hospital personal management by RC Goyal prentice Hall of India New Delhi in 1994

Medical ethic by Dr. Mehmood Alam in 2006 by Health Department KPK

**Prepared By:**  
**Hafeez Institute of Medical Sciences Peshawar**