



ہائیر ایجوکیشن کمیشن  
HIGHER EDUCATION COMMISSION

Government of Pakistan, Islamabad

Sector H-9  
Islamabad, Pakistan  
Phone : +92-51-90402111  
www.hec.gov.pk  
hkasi@hec.gov.pk

Office of the  
Deputy Director (Curriculum)

No. 9-1/HEC/Curr/NCRC/NRS/2024/5837  
March 01, 2024

**SUBJECT: REVISED CURRICULUM – NURSING 2024**

Dear Sir / Madam,

Development and review of academic standards at tertiary level is one of the major functions of Higher Education Commission (HEC) of Pakistan. HEC in collaboration with Pakistan Nursing and Midwifery Council (PNMC) has revised the curriculum of Nursing at undergraduate and graduate levels.

1. BS in Nursing (BSN)
2. MS in Nursing (MSN)

The same is shared for information and implementation by all Higher Education Institutions offering programs in the above-mentioned discipline.

**Encl:** As above

**HIDAYATULLAH KASI**

**Vice Chancellors / Rectors / Heads**

All Public / Private Sector Universities / DAIs

**Copy for information to:**

- i. ES to Chairman, Higher Education Commission, Islamabad
- ii. ES to Executive Director, Higher Education Commission, Islamabad
- iii. President, Pakistan Nursing & Midwifery Council (PNMC), Islamabad
- iv. Registrar, Pakistan Nursing & Midwifery Council (PNMC), Islamabad
- v. Advisor (Academics and Curriculum), Higher Education Commission, Islamabad
- vi. Director (Curriculum Division), Higher Education Commission, Islamabad
- vii. DG (Attestation & Accreditation), Higher Education Commission, Islamabad
- viii. DG (Quality Assurance Division), Higher Education Commission, Islamabad
- ix. In-Charge HEC Regional Centers (Lahore, Peshawar, Karachi, Quetta)

**CURRICULUM  
OF  
BS IN NURSING (BSN) / MS IN NURSING (MSN)**

**(REVISED 2024)**



**HIGHER EDUCATION COMMISSION  
ISLAMABAD – PAKISTAN**

## **CURRICULUM DIVISION TEAM, HEC**

Engr. Muhammad Raza Chouhan Advisor (Academics and Curriculum)

Ms. Dur-e-Shahwar Aamer Director (Curriculum)

Mr. Hidayatullah Kasi Deputy Director (Curriculum)

Mr. Qammar Abbas Assistant Director (Curriculum)

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## Preface

The curriculum, with varying definitions, is said to be a plan of the teaching-learning process that students of an academic program are required to undergo to achieve some specific objectives. It includes a scheme of studies, objectives & learning outcomes, course contents, teaching methodologies and assessment/ evaluation. Since knowledge in all disciplines and fields is expanding at a fast pace and new disciplines are also emerging; it is imperative that curricula be developed and revised accordingly.

Higher Education Commission, since its inception, has been involved in developing / revising the curricula on periodic basis through National Curriculum Revision Committees (NCRCs) comprising of eminent academics, researchers from HEC recognized universities/DAIs, professional councils, R&D organizations of repute and industry professionals. So far, HEC has developed and revised curricula of 120+ disciplines for undergraduate and graduate programs in various fields of Natural Sciences, Applied Sciences, Social Sciences, Art & Humanities, Engineering & Technology, Medical, Allied Health Sciences, Agriculture, Computing, Law, and Administration.

Over the period of time, labor markets in the world have substantially changed, hence, the demand for workforce skills has also altered. Due to these transformations, there is a need to produce well-rounded individuals who not only have the required knowledge base of specific discipline but also possess the required skills to increase their market readiness for them to contribute to the overall socio-economic development of the country. HEC has introduced the Undergraduate Education Policy 2023, which provides an overarching framework for undergraduate programs. This curriculum document is prepared in light of the UGE Policy 2023.

It is hoped that this document, prepared by the respective NCRC's, would serve the purpose of meeting our national, social, and economic needs, and it would also provide the level of competency specified in Pakistan Qualification Framework to make it compatible with international educational standards. The curriculum is also placed on the website of HEC <http://hec.gov.pk/english/services/universities/RevisedCurricula/Pages/default.aspx>.

**Muhammad Raza Chohan**  
**Advisor (Academics & Curriculum), HEC**

## MEMBERS OF NCRC IN THE DISCIPLINE OF NURSING

1. **Prof. Dr. Raisa Gul (Convener)**  
Professor and Dean  
Faculty of Nursing and Midwifery  
Shifa Tameer-e-Millat University, Islamabad
2. **Ms. Fouzia Mushtaq**  
Registrar  
Pakistan Nursing and Midwifery Council, Islamabad
3. **Prof. Capt. Yasmeen Saggu**  
Dean/Principal  
Foundation University College of Nursing, Islamabad
4. **Ms. Tasneem Afshan**  
Executive Board Member (Punjab),  
Midwifery Association of Pakistan  
Assistant Nursing Instructor  
College of Nursing, Benazir Bhutto Hospital, Rawalpindi
5. **Prof. Dr. Rafat Jan**  
Professor  
Former President PNMC  
School of Nursing and Midwifery  
Agha Khan University, Karachi
6. **Dr. Maryam Sarfaraz**  
Associate Professor  
Health Services Academy, Islamabad
7. **Ms. Almas Ghaffar**  
Director/Principal  
Indus College of Nursing  
The University of Modern Sciences  
Tando Muhammad Khan, Sindh
8. **Mrs. Rukhsana Parveen**  
Principal  
Sadiq Post Graduate College of Nursing, Sargodha
9. **Dr. Najma Naz**  
Associate Professor  
Institute of Nursing Sciences  
Khyber Medical University Peshawar

**10. Ms. Afshan Nazly**

Former President PNMC  
Associate Professor  
Faculty of Nursing and Midwifery  
Ziauddin University, Karachi

**11. Ms. Shaista Farooqi**

Tutor Nurse  
College of Nursing JGQH,  
Hub Chowk Quetta

**12. Ms. Asma Khalil**

Nursing Instructor  
School of Nursing and Midwifery  
PIMS, Islamabad

**13. Ms. Sabra Rani**

Nursing Instructor  
School of Nursing Education and Midwifery  
Polyclinic Hospital, Islamabad.

# **THE CURRICULUM OF BS IN NURSING (BSN) 2024**

## **1. Program Description**

The Bachelor of Science in Nursing (BSN) is a 4-year professional degree program leading to practice as a Registered Nurse. This program integrates knowledge, skills, competencies, and professional attitude required for competent clinical nursing practice. Since nursing practice transcends cultural and national boundaries, it evolves according to the health needs of global society. The program places a strong emphasis on the graduates' ability to improve the health and well-being of the population they serve. The program offers an intellectual foundation of academic, professional, and personal attributes while focusing on critical thinking and writing, speaking and quantitative skills. The four primary focuses of BScN program are risk mitigation, disease prevention, health restoration, and health promotion. The program's goal is to produce nursing students who can offer comprehensive care to patients of all ages, genders, and ethnicity. To promote the goal of the program, the courses are laid on the foundation of nursing knowledge, basic sciences, arts, and humanities. Additionally, it comprises the courses under the category of natural sciences, social sciences, quantitative reasoning, arts and humanities, nursing foundation and advanced sciences, nursing intervention and outcomes, functional English, and expository writing, working knowledge of ICT\* applications, entrepreneurship, civic and community engagement, leadership, religion, and ethics to provide essential nursing services and care to individuals, families, and the community. The implementation of the curriculum involves intense theoretical teaching, learning through simulation, and clinical practice in diverse healthcare and community settings. To enhance graduates' competencies, the curriculum focuses on a variety of teaching and learning strategies and incorporates multiple forms of assessing students' learning. The graduates will complete internship after the 4-year BSN program at any healthcare facility. The internship program is illustrated in the scheme of studies.

The graduate of this program is prepared to provide comprehensive and evidence-based care at primary, secondary, and tertiary levels within all healthcare and community settings. The BSN degree prepares nurses for a wide variety of professional roles such as staff nurse, community health nurse, school health nurse, and home health care nurse. The BSN degree is a steppingstone for advancing a career in the nursing profession. Experienced registered nurses with higher education have broader career opportunities in clinical, education, research, and administration nationally and internationally.

## **2. Program Learning Outcomes (PLOs)**

The learning outcomes of the BSN program are to:

- i. Prepare competent and committed nurse clinicians for all healthcare and community settings.
- ii. Provide safe and quality nursing care for the prevention of disease, promotion, and maintenance of health to individuals, families, and communities.
- iii. Equip the graduates with the knowledge, skills, and attitudes required for the provision of safe nursing and quality care.
- iv. Integrate research findings for the provision of evidence-based best care for individuals, families, and communities.

- v. Develop the graduates' critical thinking, problem-solving, decision making and leadership skills for confronting the complexities and demands of health care in the 21st century.
- vi. Adhere to an established pattern of professional practices within the cultural, religious, legal, and ethical framework at the national and international level.
- vii. Inculcate effective communication skills, while dealing with peers, patients, families, communities, and inter-disciplinary professionals.
- viii. Enable the graduates to utilize concepts, standards, and strategies while leading and coordinating planning, implementation, and evaluation of patients, families, and communities' care.
- ix. Equip the graduates to maintain a safe and healthy environment for the prevention of disease, promotion, and maintenance of health.
- x. Prepare the graduates to participate actively in professional organizations for the improvement of the nursing profession.
- xi. Inculcate the importance of continuing competence and the value of lifelong learning.
- xii. Able to assess, support and work as an active team member during disaster management.
- xiii. Identify and report issues resulting from climate changes on individuals and community health.
- xiv. Use healthcare informatics and technology legally and ethically to improve patients' care outcomes.
- xv. Provide respectful services during end-of-life care.

### 3. Eligibility Criteria

HSSC/A-levels/Equivalent (12 years of schooling) in Pre-Medical Group with minimum of 50% marks is the basic eligibility for the BSN program. Admitting university may conduct entry test through its own testing body or other as per its own approved screening/admission criteria.

### 4. Core Competencies and Associated Courses

S. No	Core competencies	Courses focusing on competencies
1.	Understanding of Human body and Mind	Microbiology
		Biochemistry
		A & P I & II
		Pathophysiology I & II
		Applied psychology
2.	Professional, Ethical practice and legal practice	FON I
		Professional Ethics for Nurses
		Islamic Studies/Ethics
3.	Provision of care (Quality management/ improvement)	Theoretical Basis of Nursing
		FON I & II
		Health Assessment I & II
		Medical & Surgical Nursing I & II
		Maternal, Neonatal and Child health

		Nursing
		Pediatric Health Nursing
		Mental Health Nursing
		Critical Care Nursing
		Applied Nutrition
		Clinical Pharmacology and Drug Administration I & II
		Infectious Disease
		Clinical Practicum
4.	Critical thinking	Quantitative Reasoning – I
		Principles of Teaching and Learning
		Leadership and Management
5.	Evidence- based Nursing Practice	Introduction to Biostatistics (QR-II)
		Research in Nursing
		Clinical Practicum
6.	Communication Skill	Information and Communication Technology
		Fundamentals of Nursing I & II
		Functional English
7.	Health Promotion	Culture Health and Society
		Epidemiology
		Public Health Nursing
		Infectious Disease
		Trends and Issues in Health care
		Pakistan Studies
8.	Professional Development	Leadership and Management
		Expository Writing
		Trends and Issues in Health care
		Academic Writing

### 5. Scheme of Studies (8 Semesters)

BSN program is comprised of **134** credit hours spread over a minimum of four years duration. The broader framework of the BSN program is given below:

Credit Hours	134
Program Duration	4-6 years (extendable to another 1 year in special cases)
Semester Duration	16-18 weeks (1-2 weeks for examination)
Course Load	As per HEC Semester Guidelines
Summer Semester Credit Hours	Maximum 8 (for remedial/deficiency/failure/repetition courses)
Summer Semester Duration	8-9 weeks
Attendance	75 %
3 Credit Hours (Theory)	3 classes (1 hour each) OR 2 classes (1.5 hour each) OR 1 class (3 hours)

1 Credit Hour (Practical / Laboratory / Field)	3 hours
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Four-year standardized scheme of study for BSN is given below:

<b>SEMESTER I</b>						
S.N.	Course	Category	Theory	Clinical	Skills/Lab	Credits
1	Microbiology	GE (NS)	1.5	-	0.5	02
2	Biochemistry	GE	1.5	-	0.5	02
3	English – Functional English	GE	03	-	-	03
4	Fundamentals of Nursing – I	Major	02	-	01	03
5	Anatomy & Physiology – I	Major	2.5	-	0.5	03
6	Ideology and Constitution of Pakistan	GE	02	-	-	02
7	Information and Communication Technology	GE	01	-	01	02
Total Credits = (17)						

<b>SEMESTER II</b>						
S.N.	Course	Category	Theory	Clinical	Skills/Lab	Credits
1	Fundamentals of Nursing – II	Major	02	01	01	04
2	Quantitative Reasoning – I	GE	03	-	-	03
3	Anatomy & Physiology – II	Major	2.5	-	0.5	03
4	Applied Nutrition	ID	02	-	-	02
5	Theoretical Basis of Nursing	GE (AH)	02	-	-	02
6	Islamic Studies / Ethics	GE	02	-	-	02
Total Credits = (16)						

<b>SEMESTER III</b>						
S.N.	Course	Category	Theory	Clinical	Skills/Lab	Credits
1	Professional Communication Skills	GE	03	-	-	03
2	Clinical Pharmacology and	Major	02	-	-	02

	Drug Administration – I					
3	Medical Surgical Nursing – I	Major	03	03	01	07
4	Health Assessment – I	Major	01	-	01	02
5	Pathophysiology – I	Major	02	-	01	03
Total Credits = (17)						

SEMESTER IV						
S.N.	Course	Category	Theory	Clinical	Skills/Lab	Credits
1	Applied Psychology	ID	03	-	-	03
2	Medical Surgical Nursing – II	Major	03	03	01	07
3	Health Assessment – II	Major	01	-	01	02
4	Pathophysiology – II	Major	02	-	-	02
5	Clinical Pharmacology and Drug Administration – II	Major	02	-	-	02
6	Professional Ethics for Nurses	Major	02	-	-	02
Total Credits = (18)						

SEMESTER V						
S.N.	Course	Category	Theory	Clinical	Skills/Lab	Credits
1	Civics and Community Engagement	GE	02	-	-	02
2	Pediatric Health Nursing	Major	03	03	01	07
3	Maternal, Neonatal and Child Health Nursing	Major	02	01	-	03
4	Epidemiology	ID	02	-	-	02
5	Infectious Diseases	ID	02	-	-	02
Total Credits = (16)						

SEMESTER VI						
S.N.	Course	Category	Theory	Clinical	Skills/Lab	Credits
1	Principles of Teaching & Learning	ID	03	-	-	03
2	Public Health Nursing	Major	02	02	-	04
3	Mental Health Nursing	Major	03	02	01	06

4	Introduction to Biostatistics (QR II)	GE	03	-	-	03
5	Culture, Health & Society	GE	02	-	-	02
Total Credits = (18)						

SEMESTER VII						
S.N.	Course	Category	Theory	Clinical	Skills/Lab	Credits
1	Leadership & Management	ID	02	01	-	03
2	Critical Care Nursing	Major	02	04	01	07
3	Introduction to Nursing Research	Major	03	-	-	03
4	Entrepreneurship	GE	02	-	-	02
5	Elective	Major	02	-	-	02
Total Credits = (17)						

SEMESTER VIII						
S.N.	Course	Category	Theory	Clinical	Skills/Lab	Credits
1	Geriatric Nursing	Major	1.5	1.5	-	03
2	Trends and Issues in Health Care	Major	02	-	-	02
3	Expository Writing	GE	03	-	-	03
4	Elective	Major	-	-	-	03
4	Clinical Practicum	CP	-	04	-	04
Total Credits = (15)						

**Internship:** One (01) year of paid internship after the completion of all the credits requirements of the BSN degree. Placement for internship is the responsibility of the institute offering the program.

**Recommendations:** It has been observed that some institutions are still functioning on the annual system which is not aligned with the HEC and PN&MC guidelines. It was resolved that such institutions be informed to adopt the semester system and transform their examination system accordingly by Fall 2024.

Nursing and Midwifery programs can only be offered in institutions which have relevant faculty, infrastructure, required labs and attached hospitals for clinical practice.

## 6. Course Learning Outcomes

### Course Title: Microbiology

**Credits**

Total = 02 | Theory = 1.5 | Skill/Clinical = 0.5

By the end of this course, students will be able to

1. Classify common disease-causing microorganisms.
2. Differentiate between different methods of microbe detection and destruction.

3. Demonstrate infection control practices that prevent the spread of infection in a hospital and community environment.
4. Demonstrate the skills learned in the laboratory to carry out simple laboratory experiments.

**Course Title: Biochemistry**

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<b>Credits</b>	Total = 02   Theory = 1.5   Skill/Clinical = 0.5
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By the end of this course, students will be able to

1. Differentiate between the biochemical basis of proteins, carbohydrates, lipids, enzymes, hormones.
2. Explain the role of proteins, carbohydrates, lipids, enzymes, hormones in metabolism.
3. Relate the basic knowledge of biochemistry for a better understanding of the physiological functions of the human body.
4. Interpret basic biochemical test reports in relation to the physiological function of the human body.

**Course Title: Fundamentals of Nursing – 1**

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<b>Credits</b>	Total = 03   Theory = 02   Skill/Clinical = 01
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By the end of this course, students will be able to:

1. Describe the historical development of Health care and Nursing and the role of national and international nursing Leaders and their contributions to the profession of nursing.
2. Differentiate profession and occupation.
3. Compare and contrast definitions of nursing by different Nursing Scholars.
4. Describe the role of a professional nurse.
5. Differentiate between the different basic concepts of theories of nursing.
6. Differentiate between different models of Health.
7. Explain the Health status, Health beliefs models, and Health practices.
8. Prioritize patient problems by utilizing a hierarchy of needs.
9. Apply the nursing process to manage human responses of clients to their actual or potential health problems.
10. Demonstrate safe practice of selected fundamental nursing procedures which apply to client's comfort, hygiene, safety, mobility, physiologic functions, and psychosocial health.
11. Apply therapeutic communication and decision-making skills to involve the client in decision-making regarding his/her healthcare.
12. Assess cultural, spiritual, and bio-psychosocial factors when arriving at nursing diagnoses and relevant interventions for individual clients.
13. Identify the Scope of nursing practice in Pakistan.

## **Clinical Objectives**

1. Identify the roles and functions of health care team members.
2. Describe the functions of the various departments in a hospital.
3. Describe the physical setup of the award.
4. Demonstrate fundamental nursing psychomotor skills in a safe manner.
5. Observe the coordination of patients' care between the health team members.
6. Identify different forms used for documentation in patients' care.
7. Observe the process of admission, transfer, and discharge of a patient in a hospital.
8. Orient a patient to the hospital environment.
9. Observe various legal forms/documents used in the admission process.
10. Observe patients' reactions to hospitalization and give assistance as needed.
11. Demonstrate occupied and unoccupied bed making.
12. Provide safe and respectful personal hygiene care as per patients need.

## **Course Title: Anatomy and Physiology – I**

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<b>Credits</b>	Total = 03   Theory = 2.5   Skill/Clinical = 0.5
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By the end of this course, students will be able to:

1. Describe and correlate the structures and functions of the following systems of the human body.
  - I. Musculoskeletal system
  - II. Integumentary system
  - III. Circulatory system
  - IV. Digestive system
2. Discuss the role of homeostasis in maintaining normal body functioning.
3. Relate the basic anatomy & physiology concepts to the nursing care of clients.

## **Fundamentals of Nursing – II**

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<b>Credits</b>	Total = 04   Theory = 02   Skill/Clinical = 02
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By the end of this course, students will be able to:

1. Plan care for the patient by utilizing functional health patterns.
2. Examine values conflict and resolution in nursing care situations.
3. Apply the nursing process and critical thinking skills to deliver safe nursing care to clients/ individuals with alterations in following physiological health patterns.
4. Apply the knowledge derived from Humanities, Natural, and Behavioral Sciences, while providing nursing care to clients.
5. Identifies professional, ethical, and legal principles relevant to the practice of a registered nurse.

## **Clinical Objectives**

6. Perform all basic nursing skills safely and accurately in the clinical setting.
7. Utilize techniques of therapeutic communication skills with patient and health team members.
8. Collect patients' data through interviews.
9. Observe the coordination of patients' care between the health team members.
10. Utilize appropriate hospital forms for documentation.

11. Assess and document variations in Vital Signs
12. Apply a Nursing care plan based on priority patients' problems by following all the six components of the nursing process.
13. Observe various legal forms/documents used in the admission process.
14. Document patients' assessment and care provided.
15. Demonstrate safety measures for patients.
16. Demonstrate the range of motion exercises on a patient.
17. Perform basic fundamental psychomotor nursing skills.
18. Assist in transferring patients from bed to bed, a bed to chair, and bed to stretcher.
19. Utilize different comfort devices in patients' care.
20. Assist patients with different types of positions.
21. Demonstrate characteristics of a professional nurse.
22. Assist patients in maintaining proper body alignment in the bed.

### **Professional Communication Skills**

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<b>Credits</b>	Total = 03   Theory = 03   Skill/Clinical = 00
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By the end of this course, students will be able to

1. Acknowledge the significance of multicultural communication differences in the nurse-client relationship.
2. Recognize concepts and actions that enhance listening skills, including restating, reflecting, clarifying, summarizing, and demonstrating empathy.
3. Recognize and employ communication methods verbal and nonverbal that are both effective and culturally sensitive, demonstrating emotional intelligence.
4. Demonstrate assertiveness principles to express differences confidently, utilizing appropriate language.
5. Exhibit understanding and application of therapeutic communication techniques.
6. Identify the use of various communication tools, such as SBAR, PQRSTU, PACT, and DAIM etc.
7. Utilize effective language for conflict management and dealing with hostility.
8. Share information with clients and families in a respectful and comprehensible manner, fostering discussion and encouraging participation in decision-making.

### **Course Title: Anatomy and Physiology - II**

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<b>Credits</b>	Total = 03   Theory = 2.5   Skill/Clinical = 0.5
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By the end of this course, students will be able to:

1. Describe and correlate the structures and functions of the following systems of the human body.
  - I. Respiratory system
  - II. Urinary system
  - III. Sensory Nervous system
  - IV. Endocrine system
  - V. Reproductive system
2. Relate the basic anatomy & physiology concepts to the nursing care of client.

**Course Title: Applied Nutrition**

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<b>Credits</b>	Total = 02   Theory = 02   Skill/Clinical = 00
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By the end of this course, students will be able to

1. Describe the role of Diet for the prevention & management of diseases.
2. Apply the knowledge of nutrition in the management of nutritional needs of patients with chronic and long-term diseases.
3. Plan a healthy balanced diet based on available resources and nutritional needs for the health, growth of the family members of different ages.

**Course Title: Theoretical basis of Nursing**

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<b>Credits</b>	Total = 02   Theory = 02   Skill/Clinical = 00
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By the end of this course, students will be able to:

1. Discuss the structure and function of nursing theory, its need, and the purpose of development.
2. Describe the historical context of nursing theoretical development.
3. Discuss the systematic development, description, and evaluation of theory.
4. Explain the relationship among theory, research, and practice.
5. Apply & examine the application of selected conceptual models and theories in nursing practice.

**Course Title: Clinical Pharmacology and Drug Administration – I**

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<b>Credits</b>	Total = 02   Theory = 02   Skill/Clinical = 00
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By the end of this course, students will be able to:

1. Discuss the terminology, history, and principle of pharmacology.
2. Identify the purposes and source of medications.
3. Differentiate major drugs and drug classes currently used in clinical practice.
4. Differentiate pharmacokinetic and pharmacodynamics.
5. Explain the drugs standard and legislation.
6. Explain the indication, contraindication, effects, and side effects of different drugs on different human body systems.
7. Interpret evidence presented by clients during a therapy session.
8. Design and modify appropriate dosing regimens of drugs in specific patient populations.

**Course Title: Professional Ethics for Nurses**

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<b>Credits</b>	Total = 02   Theory = 02   Skill/Clinical = 00
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By the end of this course the learners will be able to

1. Differentiate between different ethical principles in health care and nursing.
2. Identify ethical concerns in the clinical area and discuss alternatives for the identified ethical concerns.
3. Discuss the changing health environment for the role of nurses in the delivery of ethical nursing care.
4. Exhibit characteristics of a professional nurse.

5. Explore and demonstrate respect for patients/families' values and beliefs' clinical setting.
6. Integrate nursing code of ethics and ethical principles in a clinical setting.

**Course Title: Medical Surgical Nursing – I**

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**Credits**

Total = 07 | Theory = 03 | Skill/Clinical = 04

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By the end of this course the learners will be able to:

1. Identify the concepts of medical-surgical in nursing with emphasis on meeting the needs of the patient.
2. Apply integrated knowledge of basic, clinical, and nursing sciences while providing nursing care to the patient with medical surgical issues.
3. Demonstrate clinical reasoning based on the integrated knowledge to solve patients' problems.
4. Apply relevant research findings in designing appropriate nursing care for the patients.
5. Utilize an integrated concept map when planning care for medical surgical clients.
6. Plan holistic care for adult patients with a variety of medical and surgical disorders of the following systems.
  - Hematology disorders.
  - Immunological disorders.
  - Fluid, Electrolyte, and acid-base balance.
  - Gastrointestinal disorders.
  - Genitourinary disorders
  - Oncologic disorder

**Clinical Objectives**

1. Applies the nursing process and critical thinking in delivering Holistic nursing care to clients with various medical/surgical conditions in institutions and communities.
2. Formulate Nursing Care plans while caring for all adult clients in the units.
3. Incorporate cognitive, interpersonal, and technical skills from the humanities, natural and behavioral sciences while providing nursing care to clients.
4. Demonstrate awareness of legal and ethical standards when providing nursing care.
5. Demonstrate the knowledge of pharmacology used to treat all medical surgical disorders.
6. Demonstrate leadership abilities necessary to foster change in the delivery of care for patients.
7. Provide culturally sensitive and realistic teaching to clients and families in collaboration with other health team members.
8. Incorporate research findings relevant to nursing practice.
9. Collaborate with members of the health care team to promote and maintain optimum wellness of adult clients.

10. Prepares and provides care for patients going for the following diagnostic tests/examinations.
11. Perform the following psychomotor nursing skills competently.
  - a. N/G tube insertion, feeding removal.
  - b. Urinary catheterization.
  - c. Drug administration.

**Course Title: Health Assessment – I**

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<b>Credits</b>	<b>Total = 02   Theory = 01   Skill/Clinical = 01</b>
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By the end of this course the learners will be able to:

1. Assess the health status of an individual systematically by obtaining a complete health history using interviewing skills appropriately.
2. Utilize proper types and techniques of assessment and physical examination in assessing skin, head, neck, nose, mouth, pharynx, anus and rectum, breast, axilla, and genital.
3. Differentiate normal from abnormal health findings.
4. Document the patient’s findings in an appropriate manner.
5. Apply knowledge of growth & development, anatomy, physiology, & psychosocial skills in the assessment & analysis of data collected.
6. Apply therapeutic communication while history taking.  
Demonstrate skills of history taking in the clinical area.

**Course Title: Pathophysiology – I**

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<b>Credits</b>	<b>Total = 03   Theory = 02   Skill/Clinical = 01</b>
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By the end of this course the learners will be able to

1. Explain the fundamental concepts of homeostasis, cellular changes, inflammation, infection, healing, and abnormal immune responses.
2. Relate the knowledge of anatomy and physiology to the disruptions in homeostasis resulting in a disorder or disease process.
3. Differentiate between different disease processes occurring due to disruption in homeostasis and hematological disorders.
4. Demonstrate interpretation of values of fluid, electrolyte, and acid-base balance as well as analyze how imbalances can promote disorder in the body.
5. Integrate the knowledge of the basic principles of pathophysiology in caring for patients in hospital and community environments.
6. Describe the pathophysiological process of common health problems.
7. Explain the pathological reasons of clinical manifestation, and effects of disease of Genitourinary and Gastrointestinal organs.
8. Explain the contribution of environmental factors in developing changes in normal physiological processes.

**Course Title: Applied Psychology**

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**Credits**Total = 03 | Theory = 03 | Skill/Clinical = 00

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By the end of this course, the students will be able to:

1. Analyze the health-related knowledge, beliefs, attitude, and practices of various socio-cultural groups in the health care system.
2. Apply methods and findings/ of clinical psychology to solve practical problems of human behavior and experience.
3. Plan different psychological measures for promoting subjective wellbeing and personal development.
4. Apply psychological development knowledge in health care practices.
5. Demonstrate psychological assessment and psychotherapy in diverse clients.

**Course Title: Medical Surgical Nursing – II**

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**Credits**Total = 07 | Theory = 03 | Skill/Clinical = 04

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By the end of this course, the students will be able to:

1. Apply integrated knowledge of basic, clinical, and nursing sciences while providing nursing care to the patient with medical surgical issues.
2. Demonstrate clinical reasoning based on the integrated knowledge to solve patients' problems.
3. Plan holistic care for adult patients with a variety of cardiovascular, respiratory, endocrine, musculoskeletal, neurological and ENT (ear, nose, and throat) related disorders.
4. Incorporate the need of using relevant research findings in designing appropriate nursing care for the patients.
5. Apply technical skills regarding medical-surgical management. Record medications, treatments, and subjective/objective observations properly in the patient's record.
6. Explain the responsibilities of the nurse for commonly administered medications, nutritional therapies, and diagnostic tests used in the care of patients with multisystem disruptions.
7. Provide appropriate health information to the patient and family using standardized teaching plans.
8. Utilize therapeutic communication skills, guidance, and support in interacting with the adult patient and family and record observations in proper sequence and format.
9. Utilize technology to access and present patient information.
10. Recognize the need for integrating research-based information to the care of clients.

**Clinical Objectives**

1. Applies the nursing process and critical thinking in delivering Holistic nursing care to clients with various medical/surgical conditions in institutions and communities.
2. Formulate Nursing Care plans while caring for all adult clients in the units.
3. Incorporate cognitive, interpersonal, and technical skills from the humanities, natural and behavioral sciences while providing nursing care to clients.

4. Demonstrate awareness of legal and ethical standards when providing nursing care.
5. Develop awareness for self-evaluation of effectiveness in dealing with clients with Endocrine, Cardiovascular, Respiratory, ENT, Neurological and Orthopedic disorders.
6. Demonstrate the knowledge of pharmacology used to treat all medical surgical disorders.
7. Demonstrate leadership abilities necessary to foster change in the delivery of care for patients.
8. Provide culturally sensitive and realistic teaching to clients and families in collaboration with other health team members.
9. Incorporate research findings relevant to nursing practice.
10. Collaborate with members of the health care team to promote and maintain optimum wellness of adult clients.
11. Prepares and provides care for patients going for following diagnostic tests/examinations.
  - C.T. Scan
  - Cerebral Angiography
  - Lumber puncture
  - Myelograms
  - Audi metric
  - Thyroid scanning.
12. Document all assessments, nursing care, and discharge teaching provided to the clients.
13. Identifies the normal values and alterations in the diagnostic tests carried out for clients.
14. Demonstrates an understanding of the psychological needs of patients and their families during hospitalization and surgery.
15. Explain the possible reaction that a family member may exhibit when confronted with trauma, illness, death, and dying.
16. Provide holistic care to patients who are bedridden and immobile.
17. Identify normal sinus rhythm on a cardiac monitor and differentiate it from the abnormal rhythms.
18. Identify signs of increased ICP in patients with neurological conditions.
19. Observe the Emergency room systems and apply the concepts of triage.
20. Differentiate the role and responsibilities of each individual in E.R. from other units.
21. Demonstrate pre- and post-operative nursing care in patients with Muscular-skeletal surgeries.
22. Assist the following skills.
  - a. Lumbar puncture
  - b. 12 Lead ECG

- c. Blood sugars
- d. Eye and ear irrigation.
- e. Eye bandaging.
- f. Skin and Skeletal traction.
- g. Application of Plaster, cast
- h. Skin tractions, Knee mobilizer, and CPM

**Course Title: Health Assessment – II**

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<b>Credits</b>	Total = 02   Theory = 01   Skill/Clinical = 01
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By the end of this course, the students will be able to

1. Assess the health status of an individual systematically by obtaining a complete health history using interviewing skills appropriately.
2. Utilize proper techniques of observation and physical examination in assessing followings,
  - Peripheral Vascular and Musculoskeletal Systems,
  - Mental Status and Sensory Neuro System,
  - Cardiovascular System,
  - Thorax and Lungs,
  - Eyes, & Ears.
3. Apply proper techniques of observation and physical examination in assessment of an Elderly Client and Pediatric Client.
4. Differentiate normal from abnormal patient findings.
5. Document patient findings in an appropriate manner.
6. Demonstrate an awareness of the need to incorporate health assessment as part of their general nursing practice skills.
7. Apply knowledge of growth & development, anatomy, physiology, & psychosocial skills in the assessment & analysis of data collected.
8. Apply therapeutic communication while history taking.
9. Demonstrate skills of history taking in the clinical area.

**Course Title: Pathophysiology – II**

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<b>Credits</b>	Total = 02   Theory = 02   Skill/Clinical = 00
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By the end of this course, the students will be able to:

1. Describe the factors in the environment, which contribute to producing changes in Physiological processes.
2. Discuss the relationship of normal body function with altered physiological mechanisms in the disease process.
3. Integrate the knowledge of the basic principles of Pathophysiology in a hospital and community environment.
4. Explain the pathogenesis of a variety of disorders.
5. Correlate normal physiology with pathology.
6. Analyze the pathology of a variety of disorders of following systems.

- Nervous system
- Cardiac system
- Respiratory system
- Endocrine system
- ENT
- Musculoskeletal

7. Interpret the results of laboratory tests to investigate pathological conditions.

**Course Title: Clinical Pharmacology and Drug Administration – II**

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<b>Credits</b>	Total = 02   Theory = 02   Skill/Clinical = 00
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By the end of this course, students are expected to:

1. Discuss the side and adverse effects of different drugs and drug categories.
2. Differentiate characteristics of major drugs and drug classes currently used in clinical practice.
3. Integrate knowledge of physiology, pathology, and pharmacology.
4. Describe the specific pharmacology of the major drugs currently used in treating the disorders of the following systems and indications, contraindication, effects, and side effects of different drugs on different human body systems.
  - Nervous system
  - Cardiac system
  - Respiratory system
  - Endocrine system
  - Musculoskeletal
  - ENT
  - Anti-inflammatory
  - Anesthesia
5. Interpret evidence presented by clients during a therapy session.

**Course Title: Pediatric Health Nursing**

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<b>Credits</b>	Total = 07   Theory = 03   Skill/Clinical = 04
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By the end of this course, students are expected to,

1. Explain principles of growth and development and its deviation in all aspects of nursing care.
2. Identify common health issues of the children in Pakistan.
3. Explain common medical and surgical diseases of children.
4. Evaluate the impact of hospitalization on the child and family.
5. Discuss the role of the family in the care of sick children in the Pakistani Context.
6. Integrate Pathophysiological and pharmacological knowledge into the care of sick children.
7. Integrate research-based information in the care of ‘child and family’.

8. Demonstrate culturally sensitive and safe care to pediatric patients in hospital settings.

**Clinical objectives**

1. Provide nursing care to children with various medical and surgical disorders.
2. Provide counseling and education to parents.
3. Provide pre- and post-operative care to children with common pediatric surgical conditions.
4. Perform assessment of children- developmental and anthropometric.
5. Perform immunization.
6. Provide nursing care to critically ill children.

**Course Title: Maternal, Neonatal and Child Health Nursing**

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<b>Credits</b>	Total = 03   Theory = 02   Skill/Clinical = 01
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By the end of this course, students are expected to,

1. Develop understanding of maternal, neonatal and child health issues in different healthcare settings.
2. Utilize nursing processes in the care of mother, neonate, and child health.
3. Develop clinical reasoning skills that reflect sound nursing judgment in the provision of safe nursing care for women and children.
4. Demonstrate clinically competent nursing care to achieve optimal patient outcomes for women, neonates, and children.
5. Apply legal and ethical standards in practice of maternal, neonatal and child health nursing in Pakistan.
6. Integrate research for evidence-based maternal, neonatal and child health.

**Clinical objectives**

1. Provide counseling and teaching for ‘mother and family’ for parenthood and welfare services.
2. Perform assessment and management of various gynecological problems.
3. Demonstrate skill in providing nursing care in the normal pregnancy labor and puerperium.
4. Provide care for high-risk pregnancy cases.
5. Provide care for women with abnormal vaginal delivery.
6. Provide nursing care to antenatal, postnatal mother and baby.

**Course Title: Epidemiology**

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<b>Credits</b>	Total = 02   Theory = 02   Skill/Clinical = 00
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By the end of this course, students are expected to,

1. Discuss the general use of epidemiology.
2. Differentiate between the different epidemiological methods.
3. Describe the steps of an epidemiological investigation.

4. Interpret the relevance of epidemiological research findings to community health nursing practice.
5. Discuss the impact of population growth on the socioeconomic and health status in Pakistan.
6. Provide counseling to ‘mother’ for encouraging breastfeeding to newborn.

**Course Title: Infectious Diseases**

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<b>Credits</b>	Total = 02   Theory = 02   Skill/Clinical = 00
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By the end of this course, students are expected to,

1. Integrate the Principles of teaching and learning in planning teaching session.
2. Analyze various adult learning theories and the characteristics of adult learners.
3. Differentiate in the cognitive, affective, and psychomotor domains of learning based on Bloom’s taxonomy for writing objectives of teaching sessions.
4. Compare and contrast different teaching learning strategies for small and large group teachings.
5. Analyze the complexity of conditions that impact on learning.
6. Critically reflect on one’s own learning.
7. Utilize appropriate health teaching strategies for diverse settings.
8. Plan patient and family education session by utilizing the steps of patient education.

**Course Title: Public Health Nursing**

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<b>Credits</b>	Total = 04   Theory = 02   Skill/Clinical = 02
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By the end of this course, students are expected to,

1. Analyze the current population health issues in Pakistan in relation to the role of the community/public health nurse (C/PHN).
2. Demonstrate the role of the community health nurse as a care provider, practitioner, researcher, educator, and manager while participating in the health care of the community.
3. Utilize Functional Health Patterns and nursing process in delivering the care for patients in community setting with Tropical and Communicable Diseases prevalent in Pakistan.
4. Participate in planning, implementing, and evaluating the Health /Developmental projects with the community.
5. Utilize the concepts of Primary Health Care, Health Promotion, Epidemiology, demography, and Planning cycle in health/ development project in community setting.

**Course Title: Mental Health Nursing**

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<b>Credits</b>	Total = 06   Theory = 03   Skill/Clinical = 03
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By the end of this course, students are expected to:

1. Demonstrate an awareness and acceptance of mental health and illness as legitimate health issues.

2. Identify factors affecting mental health especially in the Pakistani culture.
3. Apply nursing process as applied to mental health nursing.
4. Utilize knowledge base to actively participate in therapeutic milieu for clients with mental health problems.
5. Demonstrate care of a client suffering from different mental health illnesses.
6. Identify need and relevance of community mental health in Pakistan and the resources available to manage it.

**Course Title: Introduction to Biostatistics (QR II)**

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<b>Credits</b>	Total = 03   Theory = 03   Skill/Clinical = 00
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By the end of this course, students are expected to:

1. Differentiate between various statistical terms in relation to health.
2. Explain the various statistical methods used in health sciences.
3. Demonstrate the calculation of various descriptive statistics such as frequency table, histogram, pie-chart, and line graph etc.
4. Analyze the use of statistics in some selected research studies.
5. Calculate statistical results for selected measures.

**Course Title: Leadership and Management**

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<b>Credits</b>	Total = 03   Theory = 02   Skill/Clinical = 01
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By the end of this course, students are expected to:

1. Define leadership and management and differentiate between them.
2. Differentiate various management systems within and related to the health care system by utilizing various organizational theories.
3. Integrate various theories in relation to leadership, management, problem-solving and decision making, motivation, managing change and conflict management.
4. Explain the structures and functions of organizations.
5. Discuss the functions of management (planning, organizing, staffing, directing, and controlling) the available resources effectively and efficiently for achieving the goals of the organization.
6. Integrate critical thinking skills and theoretical concepts from nursing and other disciplines in leadership decision-making process.
7. Describe the contribution of Information Technology to efficiency and effectiveness of nursing.

**Course Title: Critical Care Nursing**

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<b>Credits</b>	Total = 07   Theory = 02   Skill/Clinical = 05
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On completion of this course the learners will be able to:

1. Analyze critically the assessment data of the patient incorporating physical, psychological, social, emotional, and spiritual aspects of care.
2. Integrate the diagnostic data and lab findings with the concepts of anatomy, physiology, pathophysiology, pharmacology, health assessment, and nutrition.
3. Incorporate relevant literature in designing appropriate nursing care for the patients.

4. Apply a variety of concepts and theories to the care of individuals and families, using the nursing process and Gordon's Functional Health Patterns as the framework.
5. Demonstrate an awareness of legal and ethical standards in caring for patients with various disorders in a variety of clinical settings.
6. Relate normal and altered physiological concepts to patient care in critical care and emergency settings.
7. Discuss the concepts and principles of Disaster Management.

**Course Title: Culture, Health, and Society**

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<b>Credits</b>	Total = 02   Theory = 02   Skill/Clinical = 00
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On completion of this course students will be able to:

1. Explore the relationship between culture, society, and health.
2. Analyse health-related knowledge, beliefs, attitudes, and practices of various socio-cultural groups.
3. Appreciate the role of society and culture in recognising health system utilisation.
4. Apply trans-cultural nursing concepts when providing nursing care to clients.
5. Discuss relevant social issues and suggest methods to facilitate change where necessary.

**Course Title: Introduction to Nursing Research**

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<b>Credits</b>	Total = 03   Theory = 03   Skill/Clinical = 00
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On completion of this course students will be able to:

1. Identify and describe the components of the systematic research process as it applies to knowledge development in nursing.
2. Differentiate between qualitative and quantitative research approaches.
3. Articulate ethical considerations and adhere to regulatory standards for the protection of human subjects in research.
4. Critically appraise research studies for their methodological rigor and assess their applicability to nursing practice.
5. Evaluate the relevance and apply research literature within specific nursing contexts.
6. Implement evidence-based practice principles into nursing care strategies.

**Course Title: Clinical Practicum**

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<b>Credits</b>	Total = 04   Theory = 00   Skill/Clinical = 04
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On completion of this course students will be able to:

1. Prepare for role transition to bedside nurse.
2. Utilize learned concepts in a clinical setting.
3. Enhance the clinical practice which provides the opportunity to students to become skillful through implementing theoretical knowledge into practical situations.
4. Develop professional growth and advancement through acquired knowledge and experience.
5. Augment continuous personal growth and development.

**Course Title: Trends and Issues in Healthcare**

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**Credits**Total = 02 | Theory = 02 | Skill/Clinical = 00

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On completion of this course students will be able to:

1. Enlist factors affecting the healthcare of a country.
2. Explain current and contemporary issues in health care from a global perspective.
3. Identify the role and anomalies of health care professionals in Pakistan.
4. Identify the role of health care financing on public health.
5. Analyze the challenges, issues, and responsibilities facing nurses as leaders in the development of the profession at national and international levels.
6. Recognize the legal framework guiding and influencing health care practice.
7. Analyze the trends and issues influencing nursing workforce in Pakistan and throughout the world.
8. Demonstrate knowledge of current regulatory and ethical issues impacting the advancement of nursing practice, education, and research globally.

**Course Title: Geriatric Nursing**

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**Credits**Total =03|Theory= 1.5 |Skill/Clinical =1.5

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On completion of this course students will be able to:

1. Comprehend the physiological, psychological, and social aspects of aging, and how these factors influence the health and well-being of older adults.
2. Develop skills in conducting thorough assessments, including physical, cognitive, and psychological dimensions, to identify the unique needs of elderly patients.
3. Utilize current research and evidence-based practices in geriatric nursing to inform decision-making and care plans.
4. Demonstrate competence in managing and coordinating care for older adults with chronic health conditions such as diabetes, arthritis, dementia, and cardiovascular diseases.
5. Develop strategies to promote healthy aging and prevent complications, focusing on lifestyle factors, preventive care, and health education.
6. Enhance communication skills to effectively interact with elderly patients, their families, and interdisciplinary healthcare teams, considering factors like sensory impairments and cognitive changes.
7. Understand the complexities of medication management in the elderly population, including dosage adjustments, polypharmacy considerations, and monitoring for adverse effects.
8. Recognize and address cultural considerations in providing care to a diverse older adult population, respecting individual values, beliefs, and preferences.
9. Navigate ethical dilemmas commonly encountered in geriatric nursing, including issues related to autonomy, informed consent, and end-of-life care.
10. Develop proficiency in nursing interventions specific to geriatric care, such as mobility support, falls prevention, and skin integrity management.
11. Collaborate with healthcare professionals from various disciplines, including physicians, social workers, and physical therapists, to ensure comprehensive and coordinated care for older adults.

12. Acquire knowledge and skills in providing compassionate care for elderly individuals nearing the end of life, including pain management and support for patients and their families.

**General Education Courses:** For Course Learning Outcomes (CLOs) of the mandatory 12 courses worth 30 credits of General Education (GE) cluster, Model CLOs prepared by HEC for these courses may be consulted.

# MASTER OF SCIENCE IN NURSING (MSN) 2024

## 1. Program Description

The Master of Science in Nursing (MSN) prepares advanced practice nurses who are capable of developing innovative and practical solutions to complex health problems from a scientific, technical, and ethical perspective. The program will enable the graduates to utilize existing theories and research findings in providing care to individuals, families, and communities. Through this program, the graduate will obtain the necessary skills to conduct research which in turn will contribute to the body of knowledge in Nursing. It is also expected that graduates will become leaders with decision-making skills in the areas of clinical practice, education, and administration.

The graduates of the program can play a vital role in meeting national and global health priorities. During the course of MSN, nursing students are allowed to choose their specialty area of practicum as per their interests and needs.

The program helps to develop students' understanding of theoretical concepts in nursing sciences, academic writing, and evidence-based practice in healthcare. The MSN program builds on knowledge, skills, and experience already gained from the undergraduate degree. The program enables the students to further develop skills of critical enquiry, application of evidence-based practice, and confidence in undertaking research. The program provides learners the opportunity to develop leadership skills, plan and initiate change and continuous improvement in practice. Nursing is increasingly a profession where higher qualifications are essential, so a master's qualification can help in the pursuit of higher-level management, education, or clinical roles within healthcare settings both in Pakistan and abroad. MSN students are expected to conduct research under supervision and write the thesis. The program paves the way for graduates to undertake doctoral studies in Nursing Science.

Potential applicants will have the opportunity to enroll into a general MSN program or choose a specialty track in clinical/community, education, or leadership and management that is offered by the admitting university.

## 2. Program Learning Outcomes (PLOs)

On completion of the two-year MSN Program, the graduates will be able to:

1. Apply contemporary knowledge and the best available evidence from different sources in nursing practice, education, research, and management.
2. Apply critical and reflective thinking skills, as well as utilizing a systematic approach to problem-solving and professional decision-making.
3. Apply principles/standards in decision making, critical thinking, clinical reasoning, and judgments in the role of the advanced practice nurse.
4. Demonstrate the ability to translate relevant research findings for evidence-based practice
5. Contribute to nursing knowledge and practice by identifying a relevant topic for conducting supervised research.

6. Demonstrate leadership qualities and function effectively as a nurse educator and manager.
7. Articulate, promote, and advocate for nursing professional development, in general, and the specialist role, particularly, in clinical, legal/political, and professional contexts.
8. Work collaboratively with other healthcare professionals to enhance the quality of nursing practice and healthcare services.
9. Demonstrate proficiency in digital and written communication to communicate clear, consistent, and accurate information verbally and in written or electronic forms, in a manner sensitive to the context.
10. Demonstrate interest in continued learning for personal and professional advancement.

### 3. Eligibility Criteria

BS/Equivalent (16 years of schooling) in Nursing or Midwifery is the basic eligibility for the MSN program and a minimum of 50% score in the GAT General or equivalent test administered by the admitting university as per its own approved screening/admission criteria.

### 4. Scheme of Studies (4 Semesters)

The MSN program is comprised of 42-48 credit hours spread over a minimum of two years of duration. The broader framework of the MSN program is given below:

Credit Hours	42-48
Program Duration	2-4 years
Semester Duration	16-18 weeks (and 1-2 weeks for examination)
Course Load	As per HEC Semester Guidelines
Summer Semester Credit Hours	Maximum 8 (for remedial/deficiency/failure/repetition courses)
Summer Semester Duration	8-9 weeks
Attendance	75 %
3 Credit Hours / Week (Theory)	3 classes (1 hour each) OR 2 classes (1.5 hours each) OR 1 class (3 hours)
3 Credit Hour / Week (Practical / Laboratory / Field)	3 hours (3 x 3 = 9 hours / week)

#### General Guidelines for MSN:

1. MSN program may have different tracks/specialties depending upon the needed area of focus/specialization as well as the resources of the university.
2. Universities may offer tracks/specialties in the following areas.
  - a. Clinical (any sub-specialties, such as critical care, Accident Emergency, Mental health etc.)
  - b. Education
  - c. Leadership & Management
  - d. Public Health
3. The MSN program with any specialization can be offered subject to the condition that the program scheme should include core courses of 14 credit hours for the courses scheme given in this curriculum, and specialization courses of 12-20 credit hours with/without elective courses may be determined by the concerned university.
4. Successful completion of practicum (6 credits) and thesis (8 credits) are mandatory degree award requirements.

5. Universities may alter the sequence of courses as per academic feasibility and requirements.
6. As an example, the standardized scheme of study for MSN (General Track) is given below:

<b>SEMESTER I</b>			
S.N.	COURSE	CREDIT HOURS	CATEGORY
1	Theoretical Basis of Nursing	3 (3-0)	Core
2	Academic Writing	3 (3-0)	Core
3	Research Methodology	3 (3-0)	Core
4	Applied Statistics in Healthcare	3 (2-1)	Core
Total Credits (12)			

<b>SEMESTER II</b>			
S.N.	COURSE	CREDIT HOURS	CATEGORY
1	Advanced Health Assessment	3 (1-2)	Specialization: General Track
2	Advanced Pathophysiology	3 (3-0)	Specialization: General Track
3	Advanced Pharmacology	3 (3-0)	Specialization: General Track
Total Credits (09)			

<b>SEMESTER III</b>			
S.N.	COURSE	CREDIT HOURS	CATEGORY
1	Practicum	6 (0-6)	Practicum
2	Proposal Development	3 (3-0)	Thesis
3	Leadership & Management	3 (3-0)	Core
Total Credits (12)			

<b>SEMESTER IV</b>			
S.N.	COURSE	CREDIT HOURS	CATEGORY
1	Nursing Education	3 (3-0)	Specialization: General Track
2	Thesis	6 (6-0)	Thesis
Total Credits (09)			

## 5. Course Learning Outcomes

### Course Title: Theoretical Basis for Nursing

#### Credits

Total = 03 | Theory = 03 | Skill/Clinical = 00

By the end of this course, students will be able to:

1. Explain the development and historical perspectives of nursing theories in order to reflect the sense of professional heritage and identity.
2. Understand the basic concepts, compositions, and metaparadigms of nursing theories.
3. Integrate theories to improve clinical practices and associated health outcomes.
4. Reflect the application of theories on critical thinking, problem solving, decision making and planning of care in nursing.
5. Apply legal, ethical, and human-caring principles to diverse clinical situations in advanced nursing practices.

6. Design patient-centered and holistic care frameworks by using the best available scientific evidence based on certain applications of nursing theories.
7. Prepare nurses as advanced practitioners to deal with individuals, families, and communities while working in complex healthcare settings.

**Course Title: Academic Writing**

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**Credits** Total = 03 | Theory = 03 | Skill/Clinical = 00

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By the end of the course, the students will be able to:

1. Identify the purpose and appropriate language of writing assignments.
2. Improve the consistent harmony within concepts and ideas presented.
3. Analyze the writing passages and academic concepts with congruence.
4. Present the text logically and plausibly.
5. Use the proper, precise words, phrases, and sentence structure.
6. Expand the capabilities to use the correct language, vocabulary, and grammar.
7. Use APA and Vancouver styles of references with appropriate sources in written scholarly papers.

**Course Title: Research Methodology**

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**Credits** Total = 03 | Theory = 03 | Skill/Clinical = 00

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By the end of the course, the students will be able to:

1. State the fundamental concepts of research.
2. Identify the various types of research designs, sampling techniques, data collection tools, and data analysis for both qualitative and quantitative research methods.
3. Develop a research proposal for both qualitative and quantitative studies.
4. Review the literature to identify gaps as well as to address the interest area of the research investigator.
5. Identify the links between research, theory, and practice and their application in health care settings.
6. Reflect the current issues and barriers in research in the current healthcare system of Pakistan.
7. Apply all the required ethical considerations in conducting a research study.

**Course Title: Applied Statistics in Healthcare**

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**Credits** Total = 03 | Theory = 02 | Skill/Clinical = 01

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By the end of the course, the students will be able to:

1. State the fundamental reasons and importance of Biostatistics.
2. Distinguish between descriptive and inferential statistics.
3. Explain the terms population, samples, parameters, statistics, and various methods of sampling.
4. Apply statistical analysis to calculate the sample size.
5. Determine the methods for dealing with missing data.
6. Display appropriate graphs, figures, and tables for the presentation of various kinds of data.
7. Use various measures of central tendency, variance, and dispersion for different types of data including normal and skewed distribution.
8. Identify different types of probability distribution and the application of its rule in each situation.

9. Explain the importance of the Central Limit Theorem in statistics.
10. Apply the principles of sampling distributions to predict the behavior of sample means.
11. Compute confidence interval from a set of data for a single or multiple population means.
12. Calculate the P-value for a z-score in a set of data.
13. Evaluate the various types of hypotheses used in statistics.
14. Explain the steps and procedure for a test of significance.
15. Explain the procedure and application of one/two-tailed tests during data analysis.
16. Explain the types of errors and their impact on testing the hypotheses.
17. Calculate test statistics for different types of parametric and non-parametric tests for their interpretation.
18. Interpret the test outputs independently using advanced data analytics software.
19. Analyze, interpret, and write a report on a given data set.

**Course Title: Advanced Pathophysiology**

*Hint: (theoretical and lab/clinical portion be reflected proportionate to the assigned credits)*

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**Credits** Total = 03 | Theory = 03 | Skill/Clinical = 00

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

1. Analyze the relationship between normal physiology and specific system alterations due to altered health states.
2. Describe the etiology, developmental considerations, pathogenesis, and clinical manifestations of specific disease processes.
3. Relate interpretation of procedures and laboratory tests used in the diagnosis of the clients with altered health states of an organ system.
4. Understand the concepts involved in the disease process (inflammation, infection, immunity, cellular adaptation, aberrant cell growth, cell injury) at cellular level.
5. Utilize multiple sources of data to support clinical judgement in assessing alterations in normal physiology.
6. Apply evidence-based knowledge regarding pathophysiological changes in patient clinical management.

**Course Title: Advanced Pharmacology**

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**Credits** Total = 03 | Theory = 03 | Skill/Clinical = 00

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Upon completion of this course, the student will be able to:

1. Identify the pharmacokinetic and pharmacodynamic actions of specified drugs.
2. Describe major pharmacological differences and indications for specific pharmacotherapeutic agents within a given drug category.
3. Analyze, identify, and provide rationale for appropriate drug treatment given in a specific clinical situation.
4. Incorporate the use of pharmacotherapeutic agents as one component of comprehensive patient care.

### **Course Title: Advanced Health Assessment**

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**Credits** Total = 03 | Theory = 01 | Skill/Clinical = 02

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Upon completion of this course, the student will be able to:

1. Utilize health promotion and risk appraisal strategies that focus on the healthcare needs of adult clients.
2. Incorporate effective interviewing skills in gathering a complete and organized health history appropriate for the individual's developmental level.
3. Perform comprehensive physical and functional examinations on the adult client.
4. Accurately analyze subjective and objective data and formulate diagnostic hypotheses based on this data analysis.
5. State alternative hypothesis for diagnosis considering various sources of data.
6. Recognize the variance in health including physiological variations across ethnic, cultural, age and gender groups that may influence the assessment and plan of care.

### **Course Title: Leadership & Management**

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**Credits** Total = 03 | Theory = 03 | Skill/Clinical = 00

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By the end of this course, students are expected to:

1. Identify the link between leadership, followership, and management processes.
2. Analyze the suitability of various management theories and leadership theories considering the contextual factors.
3. Differentiate assertive, passive, and aggressive approaches to interpersonal interaction.
4. Apply concepts related to the organizational processes of leadership, planning, communication, decision-making, change management, power and politics, conflict resolution, and teamwork.
5. Realize the role of critical thinking, evidence, clear communication, and assertiveness in problem-solving.
6. Appreciate the role and influence of national and international organizations on the quality of Nursing in the health care system of Pakistan.
7. Analyze financial resources and budget processes, including budget variance report (BVR) within an organization.
8. Analyze the contemporary challenges for nursing leadership globally and within the Pakistani context.

### **Course Title: Practicum**

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**Credits** Total = 06 | Theory = 00 | Skill/Clinical = 06

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By the end of this course, students are expected to:

1. Develop clinical/administrative/nursing educational skills at an advanced level.
2. Analyze and integrate evidence-based research as it applies to nursing education/administration/clinical practice.
3. Appraise the role of nurses at chosen practice areas at an advanced level.
4. Collaborate with healthcare team members/other colleagues in chosen practice area for achieving tasks.

5. Integrate knowledge of nursing education/leadership and management/public health nursing/clinical practice in planning preventative and therapeutic management.
6. Demonstrate an awareness of the ethical, legal, political, economic, and socio-cultural issues related to nursing education/management/clinical practice.
7. Identify one contemporary issue in practicum area and propose solutions to tackle the issue using theoretical/background knowledge.
8. Demonstrate competence in a chosen specialty/practicum area under the supervision of preceptor.
9. Develop skills to recommend changes at the policy level for advanced management in chosen practice area.

**Course Title: Proposal Development**

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<b>Credits</b>	Total = 03   Theory = 03   Skill/Clinical = 00
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By the end of this course, students are expected to:

1. Identify the purposes and advantages of a research thesis proposal.
2. Describe components of a thesis proposal logically.
3. Develop skills of writing thesis proposal under supervision.
4. Identify an area of interest/significant issue related to healthcare/nursing practice, education, or nursing administration for writing a research proposal.
5. Defend research proposal at the Graduate Committee (Institutional) level.
6. Develop skills to write a successful research proposal for the Advanced Studies and Review Board (ASRB).
7. Develop skills to prepare a successful ethical review application keeping in mind all the ethical considerations pertinent to inquiry/proposal.
8. Write an initial draft of a thesis proposal.
9. State potential methodological and ethical issues in the conduct of research.
10. Identify effective solutions to the above issues in writing the proposal.

**Course Title: Nursing Education**

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<b>Credits</b>	Total = 03   Theory = 03   Skill/Clinical = 00
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Upon completion of this course, the student will be able to:

1. Analyze the philosophical foundations, mission, and vision of nursing educational programs and philosophical underpinnings of education.
2. Analyze frameworks for curriculum development utilized in nursing education.
3. Align the concepts of assessment, planning, implementation, and evaluation of course/curriculum.
4. Appreciate the variety of roles and responsibilities of the faculty in education design, delivery, and evaluation.
5. Relate principles of leadership and management in the administration of nursing educational institutions.
6. Evaluate the application of various teaching and learning strategies.
7. Analyze the forces and issues influencing the design and delivery of curriculum.

8. Describe the changing trends in nursing education locally, regionally, and globally.
9. Understand and apply the concept alignment to the course and curriculum.
10. Critique the concepts of assessment and evaluation in a variety of contexts within education.
11. Explicate the relationship of program planning and evaluation with quality assurance and quality control.

#### **6. Career Prospects**

MSN graduates can be employed in a variety of roles (Clinician/ Educator Researchers/Managers, administrators, policy makers, advocators) within different settings including hospitals, community, or non-governmental organizations.