



UNIVERSITY OF HEALTH SCIENCES, LAHORE

Syllabi & Courses of Reading for M.Sc. Nursing

Introduction

The world in which today's nursing graduates will provide care is changing, as expectations about caregiver's performance. Learning how to improve quality of care must occur during, and as part of learning about patient care.

Newly graduated nurses are expected to be competent as nurse clinicians, health educators and nurse managers. To prepare nurses for this role, nurses need time to focus on development of their profession.

The Master of Science in Nursing program is designed to meet the critical need for leaders, advance clinicians, nursing educators, and researchers in nursing. The program is structured around the major components of theory, research, management and clinical practice. The concept of leadership, critical thinking, decision making and planned change are integrated throughout the curriculum.

The Master of Science in Nursing program has its purpose in the preparation of graduate – level nurses capable of practicing as administrators or advanced practice nurses in a variety of health care settings, to strengthen an area of practice, to apply theory to practice, to apply legal and ethical practices, to apply meaning and understanding in practice and to develop skills of inquiry.

The specific objectives of the program are to prepare graduate – level nurses who:

- Incorporate advance knowledge and skills into practice as a nurse administrator, advance adult health nurse generalist, nurse educator or family nurse practitioner.
- Utilize research, advance knowledge and theories from nursing and other disciplines for improving nursing practice and nursing education, thus improving quality of care.
- Contribute to the development of the scientific knowledge base in nursing by recognizing researchable problems and participating in research to advance the practice of nursing.
- Utilize leadership strategies to effect improvements in the health care system and in health policy within the community.
- Contribute as leaders to the restructuring of professional nursing roles as health care needs emerge in society.
- To enhance the recognition of nursing as a profession.
- To be able to compete nursing skills, knowledge and practice in international level.

Eligibility to the program:

- Bachelor of Science in Nursing, from recognized institution/affiliated to a University approved by HEC.
- Minimum 1 year clinical or nursing administration experience
- Open domicile
- Open gender

Entrance Test

- English language
- Mathematics
- Aptitude test
- General/current events

Note: Only those candidates who pass the entrance test shall be eligible to appear in interview.

Teaching Method:

- Classroom lectures
- Group discussions/role play/simulation & skill laboratory demonstration
- Seminar/conferences
- Tutorials – individual or group
- Skill presentation
- Research
- Assignments

Teaching Resources:

- Multi – media
- Projectors, audio visuals
- Library
- Skills Lab
- Study tours/field trips
- Internet

Faculty:

- Minimum requirement – MSc. Nursing or equivalent master's degree level of education.
- PhD in Nursing or equivalent preferred.

Outcome of the program:

- At the completion of the program the graduate will: articulate and model a personal philosophy of nursing that is consistent with nursing theory, ethics and professional standard.
- Collaborate with the client, family, communities, and health care providers to promote, maintain and restore health across the life span.
- Apply knowledge of liberal arts, sciences, nursing theories, educational theories and frameworks to the advance nursing role.
- Utilize and disseminate research in nursing practice.
- Use a variety of communication skills and information technology to provide health care and education within multiple settings.
- Provide leadership to effect improvements in health care and nursing education through integration of the nursing discipline with liberal arts and sciences.
- Utilize skills to improve standards of care for clients, nurses, students and other professionals, communities and society.
- Evidence a commitment to professional growth and lifelong learning.
- Construct a foundation for the pursuit of doctoral education.
- Apply principles in decision making, critical thinking and independent judgment to the role of the advance practice nurse.

The Master of Science in Nursing has three specialty options:

- Clinical Nursing
- Nursing Management
- Nursing Education

Note: Additional specialties can be subsequently added by the University.

M.Sc. Nursing program is a full time academic cum research and training program of 2 years duration.

First Year – Core Courses

Subject Code	Subject	Credit
MS-NU 501	Nursing Theory	4
MS-NU 502	Nursing Education	4
MS-NU 503	Advanced Health & Clinical Assessment	3
MS-NU 504	Advanced Pathophysiology	3
	Practical /Laboratory	
MS-NU 505	Research – Qualitative method of Inquiry in Nursing	2
	Research – Quantitative method of inquiry in Nursing	2
MS-NU 506	Biostatistics	3
MS-NU 507	Nursing Administration & Leadership	4
MS-NU 508	Advanced Pharmacology	2
MS-NU 509	Nursing Informatics	2
MS-NU 510	Behavioural Sciences	2
MS-NU 511	English Language	3

Total credit 34

Note: All the courses are mandatory

Second Year – Options to select a Specialization Course

I. Clinical Nursing

Subject Code	Subject	Credit
MS-NU 611	Clinical Pharmacology	3
MS-NU 612	Advanced Pathophysiological applications	2
	Practical/Laboratory	1
MS-NU 613	Acute Symptoms Management	2
	Practical/Laboratory	2
MS-NU 614	Practicum for clinical Nursing	8
MS-NU 615	Research Project	8

Total credit 26

II. Nursing Management

Subject Code	Subject	Credit
MS-NU 621	Resource Management in Nursing Setting	3
MS-NU 622	Nursing Leadership in Organization	3
MS-NU 623	Theoretical and Scientific basis for advance practice	3
MS-NU 624	Practicum for Nursing Management	8
MS-NU 625	Research Project	8

Total credit 25

III. Nursing Education

Subject Code	Subject	Credit
MS-NU 631	Teaching and the teacher	3
MS-NU 632	Management in Teaching – Learning Process	3

MS-NU.633	Planning for Teaching-Learning in Nursing	3
MS-NU 634	Practicum for Nursing Education	8
MS-NU 635	Research Project	8

Total credit 25

Note: There will also be a English Language course of two credit hours in the second year mandatory for all students.

Core Course Descriptions

MS-NU 501 – Nursing Theory

Pre-requisite – all BSc. nursing courses

This course will prepare students to critique, evaluate and utilize nursing theory, specifically within a practice setting. It can also enhance their educational competency and skill.

MS-NU 502-Nursing Education

Pre-requisite – all BSc. nursing courses

This course aims to develop a broad understanding of the fundamental principles and various issues related to education and nursing education in Pakistan, and the key concepts and strategies to function as an effective teacher

MS-NU 503 – Advanced Health & Clinical Assessment

Pre-requisite – Health Assessment & Adult Health Nursing

The course includes comprehensive history taking techniques, physical assessment skills and recognition of pathological changes in a client. Acquisition of these skills will guide decision making in planning appropriate care of the client.

MS-NU 504 – Advanced Pathophysiology

Pre-requisite – Pathophysiology, Anatomy & Physiology

Recognition of pathological responses of the client that indicate deviations from wellness is the major focus and symptomatology of the individual's response and appropriate treatment modalities.

MS-NU 505 – Research – Qualitative method of inquiry in nursing

Research – Quantitative method of inquiry in nursing

Pre-requisite – Research in Nursing & Biostatistics

The use of nursing research knowledge to implement change and improve nursing practice. The emphasis is on the design of a research project. It is also focus in assessing current and relevant research for delineating issues, translating research, competencies in analysis and evaluation of relevant research, practice innovations and evidence base practice.

MS-NU 506 – Biostatistics

Pre-requisite – Research in Nursing & Biostatistics

This course is developed to impart the student an in-depth knowledge of statistical principals and their application to qualitative and quantitative research studies in health sciences

MS-NU 507 – Nursing Administration & Leadership

Pre-requisite – all BSc. nursing courses

This course will enable the student to understand different policies and current issues regarding nursing. It also focuses on policy development, implementation, monitoring and evaluation. On the other hand, the students can enhance their competency of administration.

MS-NU 508 – Advanced Pharmacology

Pre-requisite – Pharmacology in Nursing & Mathematics

The study of pharmacotherapeutics across life span. It includes laws governing prescriptions. Discussions are based on current literature, research findings and case studies.

MS-NU 509 – Nursing Informatics

Pre-requisite – English course & Computer in Nursing

This course focuses on concepts on information management, data management and analysis, and their use in nursing administration, nursing education, nursing practice and nursing research.

MS-NU 510 – Behavioural Sciences

Pre-requisite – All BSc. nursing courses

This course expects the nurse to be an effective communicator and an ethical practitioner of the art and science of nursing. It focuses on the sociology and anthropology in health and disease.

MS-NU-511 – English Language

This course is designed to develop and enhance the learner's receptive and productive language skills as well as critical thinking skills. The course also gives students practice in using specified grammatical structures, improve their comprehension at a deeper level to help them in their proposal writing.

Second Year –Specialization options – Description of Courses

I. Clinical Nursing

MS-NU 611 – Clinical Pharmacology

Pre-requisite – Advance Pharmacology

This course focuses on pharmacokinetics and pharmacodynamics. The topics include action of drugs on body system as well as chemotherapeutic agents, vaccines, fluids, electrolytes and drug abuse. It also explores the pharmacotherapeutic agents in primary care of acute and chronic health problems.

MS-NU 612 – Advance Pathophysiological application

Pre-requisite – Advance Pathophysiology

This course utilizes an analytical approach to understanding the cellular changes and physiologic effects of specific diseases. It emphasizes the mechanisms in cellular and tissue changes resulting from specific diseases. Etiology and clinical manifestation are related to the pathophysiology.

MS-NU 613 – Acute Symptom Management

Pre-requisite – Advance Health Assessment

This course is designed to introduce students to the role of the acute/critical care nurse practitioner in the management of patients who are experiencing critical illness or injury in acute or sub-acute settings. The course content focuses on the integration of knowledge and skills to assess patient health. Students will collaborate with health care providers to develop a multi-discipline medically and nursing oriented approach to patient care.

MS-NU 614 – Clinical practicum & role development for clinical nursing Specialist

Pre-requisite – all core courses

The clinical practicum provides the development of clinical competence as the student integrates previously acquired knowledge into the enactment of the multiple roles for the nurse and allows greater degree of interdependent practice based on the student's abilities and progress. Students will work with a preceptor.

MS-NU 615 – Research Project or Thesis

Pre-requisite – all core courses

It provides students the opportunity to study in areas of interest other than the defined courses. This may involve seminar, lectures, conference permitting flexibility in study.

Research Project

It provides the opportunity for an individual or small group of students to plan, conduct and report an in-depth research study utilizing appropriate research methodology with the guidance and approval of their respective adviser.

Thesis

It provides the opportunity for a student to plan, conduct and report an individualized in-depth study with the guidance and approval of faculty members and adviser.

II. Nursing Management

MS-NU 621 – Resource Management in Nursing Setting

Pre-requisite – all core courses

This course focuses on theoretical bases for organizational context, structure and function. It includes models for strategic management of services in health care industry which deals with diverse client population.

MS-NU 622 – Nursing management and Leadership in organization

Pre-requisite – all core courses

This course focuses on leadership issues confronting today's health care leaders. Topics will include how to become a better leader, getting support in a leadership role, mentoring others, being a role model and identifying resources for success in leadership role.

MS-NU 623 – Theoretical & Scientific Basis for Advance Practice

Pre-requisite – Nursing Theory and Role Development

It presents the nature of theory and the process of theory development in nursing. Students are expected to begin to synthesize nursing theory and philosophy into an individualized practice model.

MS-NU 624 – Nursing Management Practicum

Pre-requisite – all core courses

It provides an opportunity for the student to practice concepts and behavior which were previously explored. Analysis of the administrative processes and functions is encouraged. Clinical experience is intended to reinforce understanding of the nursing administrator's role in problem solving, conflict management within the nursing organization.

MS-NU 625 – Research Project or Thesis

Pre-requisite – all core courses

It provides students the opportunity to study in areas of interest other than the defined courses. This may involve seminar, lectures, conference permitting flexibility in study.

Research Project

It provides the opportunity for an individual or small group of students to plan, conduct and report an in-depth research study utilizing appropriate research methodology with the guidance and approval of their respective adviser.

Thesis

It provides the opportunity for a student to plan, conduct and report an individualized in-depth study with the guidance and approval of faculty members and adviser.

III. Nursing Education

MS-NU 631 – Teaching and The Teacher

Pre-requisite – all core courses

MS-NU 632 – Management in Teaching-Learning Process

Pre-requisite – all core courses

MS-NU 633 – Planning for Teaching-Learning in Nursing

Pre-requisite – all core courses

MS-NU 634 –Nursing Education Practicum

MS-NU 635 –Project Research or Thesis

MASTER OF SCIENCE IN NURSING

SYLLABUS (OUTLINE OF TOPICS)

Outline of Topics/Syllabus

First Year – Core Courses

1. MS-NU 501 – Nursing Theory

Unit 1	Role of a Nurse in a Health Team
Unit 2	Towards Development of Nursing Practice Theory <ul style="list-style-type: none">- Stages in nursing progress- Milestone in theory development
Unit 3	The Concept of Nursing Theory – Towards a clearer understanding of the concept of nursing theory Theories of nursing; Leninger, Pender, Kolcaba, Mercer, Mischel, Orem, King, Roy's theories, and their applications
Unit 4	Nursing Theory – Philosophical considerations <ul style="list-style-type: none">- A theory of theories- Theory of nursing – borrowed and unique- Structuring the nursing knowledge system- Philosophical sources of nursing theory- Theoretical thinking in nursing – problems & prospects- Holistic man & the science and practice of nursing- Analysis of changing trends in philosophies of science on nursing- Perspective on knowing: A Model of nursing knowledge
Unit 5	Nursing science: The challenge to develop knowledge <ul style="list-style-type: none">- Nursing syntax revisited: A critique of philosophies said to influence nursing theories
Unit 6	Nursing theory and nursing practice <ul style="list-style-type: none">- Practice oriented theory- Theory: The professional dimension- The notion of a practice theory- Taking concepts as guides to action: Exploring kinds of know-How
Unit 7	Nursing theory and nursing research <ul style="list-style-type: none">- Practice oriented research- The interaction between theory and research- Toward a new view of science: Implications for nursing research- Scientific inquiry in Nursing: A model for a new age

Outcome:

The student is expected to critique and apply the above theories in nursing administration, clinical set-up, and nursing education.

Suggested reading:

Perspective on Nursing Theory, 3rd ed., Lippincott, Leslie H. Nicoll
Theoretical Nursing – Development & Progress, 3RD and 4th ed., Lippincott William & Wilkins, Afaf Ibrahim Meleis

2.MS-NU 502.-Nursing Education

Unit 1	<p>Theoretical basis of nursing education</p> <ul style="list-style-type: none">• Definition of Education• Education• Training• Philosophy of Education• Historical development of nursing education• Vision, Mission, goals, outcomes <p>Philosophy, values and trends in education and health and its impact on nursing education.</p>
Unit 2	<p>Aims and objectives of nursing education</p> <ul style="list-style-type: none">• Aims of an educational program• Factors determining educational aims• General aims of education• National aims of education• General objectives• Specific objectives• Taxonomy of objectives• Principles in writing objectives
Unit 3	<p>Curriculum and curriculum design of nursing education</p> <ul style="list-style-type: none">• Discuss basic concepts and philosophical foundation of curriculum development• Explore the focus and issues influencing curriculum implementation• Understand basic concepts of curriculum development• Identify forces and issues influencing curriculum• Differentiate between various types of curriculum in planning• Identify approaches to curriculum development• Analyze development of curriculum frameworks/models in the academic arena
Unit 4	<p>Principle and process of nursing education</p> <ul style="list-style-type: none">• Concepts of education• Dimensions of educational process in nursing<ul style="list-style-type: none">○ Substantive Dimension○ Procedural Dimension○ Environmental Dimension○ Human Relation Dimension• Elements of education process<ul style="list-style-type: none">○ Why to educate○ Whom to educate○ Who to educate○ Where to educate○ What to educate○ How to educate
Unit 5	<p>Continued education in nursing</p> <ul style="list-style-type: none">• Concepts, importance, need, scope principles of adult learning.

	<ul style="list-style-type: none"> • Assessment of learning needs, priorities, resources • Program planning, implementation and evaluation of continuing education programs
Unit 6	<p>Evaluation of nursing education</p> <p>Quality Assurance in Nursing Education</p> <ul style="list-style-type: none"> • Define quality and Quality Assurance (QA) • Quality Assurance Process and its key elements • The focus of the quality assurance in a quality system • Stakeholder in nursing education • Indicators for quality assurance in nursing education system • Audit and Academic quality assurance <p>Program Evaluation</p> <ul style="list-style-type: none"> • Difference in evaluation and accreditation • Purposes • Standard and Criteria • Assessment and Evaluation • Components of Evaluation/ Accreditation • Elements of successful Evaluation <p>Personal experience & decision making</p> <p>Accreditation</p> <ul style="list-style-type: none"> • Definition and Philosophy of accreditation • Types, Goals and benefits • Standard criteria • Critical elements • Confidentiality and ethical guidelines
Unit 7	<p>Administration of nursing education</p> <ul style="list-style-type: none"> • Concepts of educational leadership • Educational management • Changing context of educational management <ul style="list-style-type: none"> ○ Stress management ○ Problem solving & decision making ○ Motivation & incentives and Team building • Integration of Information management system in Nursing Education • Academic Standard <ul style="list-style-type: none"> ○ Academic audit and quality assurance • Physical Facilities and Resources • Publication <ul style="list-style-type: none"> ○ Prospectus ○ Handbooks ○ Annual Reports ○ Newsletters
Unit 8	<p>Theoretical approaches to teaching and learning in clinical nursing education.</p> <ul style="list-style-type: none"> • Psychological theories, Pablov theory and its application, • Developmental theories; Gestalt , Piagets, Kohlbergs and their application. • Social theories; Cognitive field theory, Friere theory and its application. <p>Theories of learning; Skinner and Thorndike, Bandura's, Robert</p>

	Gagne, Gardner's theory of multiple intelligence, Ausubel's assimilation theory.
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Outcome:

The student is expected to develop a broad understanding of fundamental principles, trends, and issues related to education. Further, it would provide opportunity to students to understand, appreciate and acquire skills in teaching and evaluation, curriculum development, implementation, maintenance of standards and accreditation of various nursing educational programs. .

Suggested reading

Basavanthappa B.T, "Nursing Education", Jaypee brothers,Edn I, 2005

Reference

Innovative teaching Strategies in Nurisng and related health professions, Bradshaw, Lowenstein

2. MS-NU 503 – Advanced Health & Clinical Assessment

Unit 1	The Nursing Health History
Unit 2	Components of Nursing Health History
Unit 3	<p>Physical Assessment and General Physical survey</p> <ul style="list-style-type: none"> • <u>Skin, hair and nail assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus questions, - objective data assessment techniques - skin inspection and palpation - scalp inspection and palpation - nail inspection and palpation - teaching tips and nursing management for selected nursing diagnoses • <u>Head, neck and cervical lymph node assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus question - face and neck palpation, trachea/thyroid/lymph node palpation - teaching tips and nursing management for selected nursing diagnoses • <u>Mouth, nose and sinus assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus questions - inspection of mouth, nose and sinus - teaching tips and nursing management for selected nursing diagnoses • <u>Eye assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus question - external eyes inspection (eyelids/lashes) - eye functioning test (visual acuity, peripheral vision) - accommodation - extraocular movements - response to light, abnormal eye movement) - ophthalmic examination (red reflex, inspect optic disc, retinal vessel, retinal background) - teaching tips and nursing management for selected nursing diagnoses • <u>Ear assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus question - inspect external ear (size, shape, lesion, discoloration) - palpate external ear (mastoid process – tenderness, temperature, edema) - inspect auditory canal with otoscope (cerumen, appearance, tenderness), - inspect tympanic membrane with otoscope (color, consistency, landmarks) - assess auditory function (gross hearing ability, lateral sound, comparison of air conduction) - teaching tips and nursing management for selected nursing diagnoses

	<ul style="list-style-type: none"> • <u>Thoracic and lung assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus question - <u>Inspection</u> (lateral, posterior and anterior thorax – color, intercostals spaces, chest symmetry, respiration, shape/position of sternum, chest expansion) - <u>palpation</u> (palpate the thorax – sensation, vocal/sound, thoracic expansion) - <u>percussion</u> (resonance, diaphragmatic excursion bilaterally) - <u>auscultation</u> (breath sounds, altered voice sound), teaching tips and nursing management for selected nursing diagnoses • <u>Cardiac assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus question - inspection to identify landmarks and any abnormal pulsation - <u>palpation</u> (aortic area, pulmonic area, tricuspid area, mitral area), - <u>percussion</u> – to define cardiac borders and area of dullness - <u>auscultation</u> (heart sound, rate/rhythm) - teaching tips and nursing management for selected nursing diagnoses • <u>Abdominal assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus question - <u>inspection</u> - skin color, venous pattern, skin integrity, umbilicus, surface motion, symmetry, contour - <u>auscultation</u> - bowel sounds, vascular sounds - <u>percussion</u> - all four quadrants, liver area, spleen area - <u>palpation</u> - all four quadrants – tenderness, consistency, masses, kidneys, abdominal girth - teaching tips and nursing management for selected nursing diagnoses • <u>Genitourinary/reproductive assessment</u> – female genitalia, male genitalia, inguinal area, external rectal examination <ul style="list-style-type: none"> - subjective and objective data focus question - <u>inspection</u> <u>female</u> – labia, urinary meatus, vaginal orifice, vaginal wall <u>male</u> – observe penis, discharge, skin texture, observe glans for shape, size and lesions - <u>palpate</u> - masses, tenderness, discharge, foreskin - <u>inspection</u> - inguinal area - assessment of external rectal area, peri-anal area color, masses or discharge, sacrococcygeal area for color, hair and texture - teaching tips and nursing management for selected nursing diagnoses
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	<ul style="list-style-type: none"> • <u>Musculo-skeletal assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus question - inspection of gait - inspection and palpation of spine, shoulder, posterior iliac crest - palpation and inspection of head, neck, facial structure, muscle development, inspect and palpate upper and lower extremities, inspect for range of motion - teaching tips and nursing management for selected nursing diagnoses. • <u>Neurological assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus question - mental status assessment - appearance & movement, posture, gait, motor movement, hygiene, facial expression, speech - observe mood - feelings, expressions, thought process, perceptions, clarity - cognition/level of consciousness, memory, abstract reasoning - ability to make sound - ability to identify similarities, sensory perception and coordination - cranial nerve assessment - scent, assess vision, assess pupils, ability to feel/touch, assess jaw jerk, assess hearing - sensory nerve assessment - primary sensation, cortical and discriminatory sensation - motor assessment – voluntary movements, deep tendon reflexes, bicep reflex, triceps reflex, patella reflex, achilles reflex, babinski reflex, decortication, decerebration - teaching tips and nursing management for selected nursing diagnoses. • <u>Nutritional assessment</u> <ul style="list-style-type: none"> - subjective and objective data focus question - general inspection - muscle mass, body fat, posture, energy level, frame size, weight/height, mid-arm circumference, triceps skin fold, hypoglycemia, hyperglycemia, electrolyte imbalance - teaching tips and nursing management for selected nursing diagnoses. • <u>Prenatal/intra-partum/postpartum assessment</u> <ul style="list-style-type: none"> - <u>Prenatal</u> - Subjective and objective focus question, weight, vital signs, skin color, edema of extremities, assess breast (size, tenderness, vascularization), urine consistency, vaginal discharge, inspect pelvic joints, gait, leg cramps), neurological status, palpate outline of fetus, fundal height, fetal heart sound and movement, altered nutrition, teaching tips and nursing management for selected nursing diagnoses. - <u>Intra-partum</u> – Abdominal assessment (uterine size/shape,
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	<p>frequency/duration/intensity of contraction, monitor fetal heart beat, peri-anal assessment (lesion, discharge, swelling), position, effacement, dilatation, presentation, acute pain, vital signs</p> <p>- <u>Post partum</u> – Monitor vital signs, inspect breast (nipples, discharge, texture, size), inspect abdomen (size, color, texture), palpate fundus (location, consistency, height, expression of clots), inspect extremities for edema, inspect voiding (amount, color), inspect perineum (episiotomy/laceration, swelling, color, lochia, odor), teaching tips and nursing management for selected nursing diagnoses.</p>
Unit 4	<p>Psychosocial assessment</p> <ul style="list-style-type: none"> - Psychosocial Issues in special health setting - Common psychiatric disorders in general health setting - Psychosocial aspects of pain - Psychosocial aspects of sleep and awareness - Psychosocial aspects of aging
Unit 5	Nursing assessment based on functional health patterns
Unit 6	Assessment of family functional health patterns
Unit 7	<p>Nursing diagnoses according to functional health patterns</p> <ul style="list-style-type: none"> - health perception management pattern - nutritional – metabolic pattern - elimination pattern, activity/exercise pattern - sexuality/reproductive pattern, sleep/rest pattern - sensory/perceptual pattern - cognitive pattern - role/relationship pattern - self perception/self concept pattern - coping stress tolerance pattern - value/belief pattern
Unit 8	Nursing Diagnoses and Clinical Interventions

Outcome:

The students are expected to perform and apply nursing health assessment with regards to patient care, to formulate nursing diagnoses, and identify health problems.

Suggested reading:

Nurses' Handbook of Health Assessment, 4th ed., Lippincott, Janet R. Weber

Nursing Health Assessment – Concepts and Activities, Margaret A. Fitzgerald

Manual of Nursing Practice, Lippincott, 8th ed., William & Wilkins

3. MS-NU 504 – Advanced Pathophysiology

Unit 1	<p>Concepts of Health Diseases</p> <ul style="list-style-type: none"> - Disease etiology, clinical manifestation
Unit 2	<p>Concepts of altered health in adult</p> <ul style="list-style-type: none"> - Physiologic changes in aging – skin, changes in blood pressure, change in vision/hearing/taste/smell, decrease in lean body mass
Unit 3	<p>Alteration in cell differentiation/neoplasia</p> <ul style="list-style-type: none"> - Cancer cell characteristics - Characteristic of benign and malignant neoplasm - General effects on body function associated with cancer growth
Unit 4	<p>Alteration in activity tolerance</p> <ul style="list-style-type: none"> - Physiologic responses during physical activity - Metabolic and thermal responses during physical activity - Gastrointestinal response during physical activity - Cardiovascular response during physical activity - Psychological response during physical activity - Assessment of activity tolerance – The fatigue severity scale
Unit 5	<p>Hematopoietic Function</p> <ul style="list-style-type: none"> - Hematopoiesis - Red cell metabolism, oxygen transport. - General aspects of anemias - Iron deficiency anemia, B12, folate deficiency anemia. - Anemias of chronic disease. Congenital and acquired hemolytic anemias, anemias-due to reduced red cell production(Sickle cell anemia and thalassemias), aplastic anemia - White blood cells, normal range, neutrophilia and neutropenia, eosinophilia. - Introduction to hemostasis, platelet function disorders and coagulation factor deficiencies - Introduction to ABO blood groups, transfusion reactions and management of acute hemolysis.
Unit 6	<p>Cardiovascular System</p> <ul style="list-style-type: none"> - Alteration of cardiac function – The students must know and identify the signs, symptoms and nursing intervention of the following: pericardial effusion, stable angina, unstable angina, myocarditis, infective endocarditis, aortic valve stenosis & regurgitation, MI, CAD, CHF. - The student must know the physiology of coronary arteries and control of coronary blood flow. - Disorders of cardiac conduction – electrocardiography (P wave, QRS, ST segment, T wave), action potential phases, absolute & relative refractory periods - Disorders of cardiac rhythm – mechanism of dysrhythmias and conduction disorders, pre-mature ventricular beats, ventricular tachycardia, ventricular fibrillation, atrial fibrillation, atrial flutter, supraventricular

	<p>tachycardia, sinus bradycardia, sinus tachycardia</p> <ul style="list-style-type: none"> - Hypertension – Types of hypertension, physiologic changes in hypertension, complications, physiologic basis of treatment - Congenital Heart Diseases – Atrial Septal Defect (ASD), Ventricular Septal Defect (VSD), Atrioventricular Septal Defect (AVSD), Patent Ductus Arteriosus (PDA), Tetralogy of Fallot (TOF), Transposition of Great Vessels, Persistent Truncus Arteriosus, Coarctation of Aorta, Pulmonary Stenosis, Pulmonary Atresia, Aortic Stenosis, Tricuspid Atresia, Ebstein's Anomaly
Unit 7	<p>Respiratory System Discuss: Physiology of airway.</p> <ul style="list-style-type: none"> - Influenza – Characteristics of the viruses, clinical picture/symptoms of infection, Physiologic basis of treatment - Tuberculosis – Epidemiology, diagnosis, clinical picture/symptoms, physiology of treatment - Pneumonia – Pathogenesis, host factors, microbial factors, clinical picture/symptoms, physiologic basis of treatment - Chronic obstructive pulmonary disease – Epidemiology, pathophysiologic changes in the lungs, clinical picture/symptoms, physiologic basis of treatment. - Lung cancers – Types of lung cancers, carcinogenesis, diagnosis/symptoms/clinical picture, physiology of treatment
Unit 8	<p>Diabetes</p> <ul style="list-style-type: none"> - Physiology of fuel metabolism - clinical picture/symptoms of each type, complications - physiologic basis of treatment
Unit 9	<p>Skeletal and Muscular System</p> <ul style="list-style-type: none"> - Rheumatoid arthritis – etiologic factors, pathophysiologic mechanism, clinical picture/symptom, physiologic basis of treatment <p>Note: other types of arthritis can be discussed.</p>
Unit 10	<p>Gastrointestinal and Hepatic disorders</p> <ul style="list-style-type: none"> - Gastroenteritis – Pathophysiologic process, clinical picture/symptoms, physiologic basis of treatment - Peptic Ulcer – Epidemiology, clinical picture/symptoms/risk factors, types of peptic ulcer, physiologic basis of treatment - Irritable Bowel Syndrome – Clinical picture/diagnosis/symptoms, physiology of treatment - Hepatitis A, B & C – Differential diagnosis of each type, clinical picture/symptoms of each type, physiologic basis of treatment of each type.
Unit 11	<p>Genitourinary Disorders</p> <ul style="list-style-type: none"> - Urinary Tract Infections – Pathophysiologic mechanism, diagnosis of urinary tract infection, clinical picture/symptoms, physiologic basis of treatment - Sexually transmitted diseases – Types (Neisseria

	gonorrhea, syphilis, herpes simplex, candidiasis), clinical picture/symptoms of each type, physiological effect of each type, predisposing factors of each type, diagnosis/physiologic basis of treatment of each type.
Unit 12	<p>Disorders of Brain Function</p> <ul style="list-style-type: none"> - Cerebrovascular disease – Stroke (brain attack), aneurysm subarachnoid hemorrhage (physiological changes, clinical picture/symptoms, physiologic basis of treatment) - Seizure disorders – Generalized convulsive status epilepticus – etiology, physiological changes, clinical picture/symptom, physiologic basis of treatment <p>Discuss: Clinical picture/symptoms/diagnosis, physiologic changes, and physiologic basis of treatment</p>
Unit 13	<p>Special senses</p> <ul style="list-style-type: none"> - Conjunctivitis (bacterial & viral) - Glaucoma (congenital & infantile) - Cataract (traumatic & senile) - Otitis externa, otitis media <p>Discuss: Clinical picture/signs & symptoms/physiologic changes, physiologic basis of treatment</p>

Outcome:

The students are expected to relate medical diagnosis into formulation of nursing process.

Suggested reading:

Pathophysiology – Concepts of Altered Health States, 6th ed., Carol Mattson Porth

Advanced Pathophysiology – Application to Clinical Practice, Lippincott, Maureen Groer

4. MS- NU 505 – Research

Qualitative method of inquiry in nursing

Unit 1	The design of qualitative research – characteristics of qualitative research, design and planning of qualitative research, phases in qualitative study, features of qualitative design
Unit 2	Qualitative research traditions – ethnography, phenomenology, grounded theory
Unit 3	Critiquing qualitative and integrated design
Unit 4	Research examples – grounded theory study, ethnographic study, integrated study
Unit 5	Critical thinking activities

Research – Quantitative method of inquiry in nursing

Unit 6	Purposes and dimensions of research design in quantitative studies
Unit 7	Experimental research, quasi-experimental research, non-experimental research
Unit 8	Research design and the time dimension – cross sectional and longitudinal designs
Unit 9	Specific types of quantitative research - surveys, evaluations, outcome research
Unit 10	Research control - controlling external factors - controlling intrinsic factors
Unit 11	Internal and external validity
Unit 12	Critiquing quantitative research designs
Unit 13	Integration of qualitative and quantitative approaches

The following topics are included in the course outline

Sub – topic 1	Preliminary steps in research process - scrutinizing research problems, questions & hypotheses
Sub-topic 2	Designs for nursing research - understanding qualitative and quantitative design - examining sampling plans
Sub-topic 3	Collection of research data - scrutinizing data collection methods, evaluating measurements and data quality
Sub-topic 4	Analysis of research data - analyzing qualitative data - analyzing quantitative data
Sub-topic 5	Dissemination and implementation of research in nursing

Outcome:

- The students are expected to learn research in nursing as a tool in improvement of nursing skills.
- The students are expected to practice evidence base nursing care
- To enhance critical thinking and decision making in terms of nursing assessment, monitoring and evaluation of patient care.

Suggested reading:

Essentials of Nursing Research – Methods, Appraisal and Utilization, 5th ed., Lippincott, Denise F. Polit, Cheryl Tatano Beck, Bernadette P. Hungler

Nursing Research – Dissemination and Implementation, Churchill Livingstone, Anne Mulhall, Andree Le May

5. MS- NU 506 – BIOSTATISTICS

Unit 1	Variables & their Types, Measurement Scales, Types of Data, Data Collection
Unit 2	Presentation of Data: Frequency Distribution & Graphs
Unit 3	Descriptive Statistics: Measures Of Central Tendency, Measures Of Dispersion
Unit 4	Inferential Statistics: T-Test. Z-Test, F-Test, ANOVA, Chi-Square Test and their applications.
Unit 5	Introduction And Application of Linear Regression & Correlation.
Unit 6	Sampling, Random & Non Random Sampling, Sampling Error, Sample Size, and Questionnaire Design.
Unit 7	Introduction to statistical package(SPSS)

Suggested reading:

Biostatistics for medical, nursing and pharmacy students, A. Indrayan, L. Satyanarayana

Suggested further readings:

Methodological references

Substantive references

6. MS- NU 507 – Nursing Administration & Leadership

Unit 1	Theoretical basis of nursing administration - Occupation and profession - Need for nursing administration - Administration versus management Theories of administration and management; Taylor, Fayol, Urwick, Follett, Lewin, Mintzberg, Ouchi, Yoshida and Deming
Unit 2	Functional authority of nursing administration - Scope of Management - Functions of manager <ul style="list-style-type: none"> • Planning • Organizing • Staffing • Controlling
Unit 3	Communication skills Effective communication Spheres of communications Communication-negotiation
Unit 4	Counseling Skills
Unit 5	Conflict management Conflict resolution <ul style="list-style-type: none"> - Characteristics, Types - Conflict Assessment - Strategies - Approach to understand the nature of conflict
Unit 6	Crisis management
Unit 7	Hospital waste management <ul style="list-style-type: none"> - Introduction - Formation of team, plan, techniques, responsibilities - Incineration; types and trends - Nosocomial Infections
Unit 8	Quality control Need of quality health care by nursing personnel Audit as a tool for quality control Nursing Audit <ul style="list-style-type: none"> • Meaning • Purpose • Method Dimensions of quality performance

Note: In this course, the students are expected to develop nursing policies and procedure to be adopted in administrative and clinical set – up and present a case study regarding legal issues in nursing

Outcome:

- The students are expected to adopt nursing policies and procedures
- The students will be able to understand laws and jurisprudence pertaining to nursing practice
- The students will be able to understand the related theories about Nursing Management, and apply them in their work

Suggested reading:

Professional Practice of nursing Administration, Simms, price, Ervin-3rd edition

References: Fundamentals of Nursing textbooks

7. MS-NU 508 – Advanced Pharmacology

Unit 1	Pharmacokinetics <ul style="list-style-type: none">- Routes of drug administration- Absorption of drugs- Bioavailability of drugs- Volume of distribution- Drug metabolism- Drug elimination- Kinetics of continuous administration
Unit 2	Laws relating to drugs <ul style="list-style-type: none">- Local regulation of drugs – Pakistan
Unit 3	Drug receptor interaction and pharmacodynamics <ul style="list-style-type: none">- Chemistry of receptors and ligands- Major receptor families:<ul style="list-style-type: none">ligand gated ion channelsG protein coupled receptorsenzyme linked receptorsintracellular receptors- Dose response relationship:<ul style="list-style-type: none">graded dose response relations - potency, efficacy, drug receptor binding, relationship of binding effect, agonists, antagonists, functional antagonism, partial agonist- Quantal dose response relationship:<ul style="list-style-type: none">therapeutic indexdetermination of therapeutic index

Note:

- In this course, the students are expected to know commonly used drugs as previously learned in BSc. Nursing degree
- The students are expected to discuss different research base drugs affecting body systems, and specific disease selected by individual students (open discussion).

Suggested reading:

Pharmacology Lippincott's Illustrated Reviews, 3rd ed., Richard D. Howland, Mary J. Mycek – Pakistan Edition.

Introduction to Nursing Pharmacology, Jaypee Brothers, SM Raju, Bindu Madala

Pharmacology for Nurses, 5th ed., James Connechen, Eamon Shanley, Howard Robson

Reference journals on pharmacology

Pakistan Index of Medical Specialties

8. MS-NU 509 – Nursing Informatics

Unit 1	Nursing informatics <ul style="list-style-type: none">- careers in nursing informatics- educational preparation using nursing informatics- informatics organizations
Unit 2	Hospital information system <ul style="list-style-type: none">- Computers: the need to manage information- Nursing knowledge: access via bibliographic data bases
Unit 3	Computers as patient care tools <ul style="list-style-type: none">- Information system- Nursing classification system- Computerized patient records

Note:

- In this course, the students will practically learn in computer laboratory
- The instructor is expected to assign task to the students according to above topics to be done in computer laboratory.
- This course is not part of the annual professional examination
- Final Grade on internal/continuous assessment: **PASS OR FAIL**

Suggested reading:

Computers in Nursing – Bridges to the Future, Lippincott, Linda Q. Thede

Handbook of Informatics for Nurses & Health Care Professionals, Toni Hebda, Patricia Czar & Cynthia Mascara

9.MS-NU 510 – Behavioural Sciences

Unit 1	Introduction to Behavioural Sciences <ul style="list-style-type: none">- Communication Skill- Counseling- Breaking Bad News
Unit 2	Sociology and anthropology in health and disease <ul style="list-style-type: none">- Culture- Beliefs, Values and Norms- Social Structure- Family- Child Rearing Practices- Death and Dying- Health Belief Models and Explanatory Models of Illness- Social Support- Treatment Adherence- Stigma- Sick Role- Delivery of Culturally Relevant Care and Cultural Sensitivity
Unit 3	Psychological Aspect of health and disease <ul style="list-style-type: none">- Anxiety and depression- Loss and grief- Hope and hopelessness
Unit 4	Stress and its management
Unit 5	Cultural Diversity in Nursing: How much can we tolerate

Outcome:

The students are expected to understand the individual difference, and having a holistic and a humanistic approach towards their patients.

Suggested reading:

Handbook of Behavioural Sciences for Medical and Dental Students, University of Health Sciences Lahore.

Specialization Course 1-Outline

Clinical Nursing

1. MS-NU 611 – Clinical Pharmacology

Unit 1	Pharmacokinetics & Pharmacodynamics Rational dosing & the time course of drug action Dosing history <ul style="list-style-type: none">- timing of samples for concentration measurement- initial predictions of volume of distribution & clearance- revising individual estimates of volume of distribution & clearance
Unit 2	Drug Biotransformation <ul style="list-style-type: none">- role of a drug biotransformation in drug disposition- where do drug biotransformation occur- metabolism of drugs to toxic products- clinical relevance of drug metabolism – individual differences, genetic factor, diet & environmental factors, age & sex, drug to drug interactions during metabolism, disease affecting drug metabolism
Unit 3	Clinical evaluation of new drugs <ul style="list-style-type: none">- pharmacological profile tests at: molecular, cellular, system/disease models- profile tests for experimental method, target organ, species/tissue, route of administration, measurement
Unit 4	Autonomic Pharmacology <ul style="list-style-type: none">- steps in autonomic transmission & effect of drugs
Unit 5	Cholinergic activating & cholinesterase inhibiting drugs <ul style="list-style-type: none">- pharmacokinetics & pharmacodynamics of cholinergic activating drugs- direct & indirect organ-system effects of cholinergic stimulants on eye, gastrointestinal tract, heart, CNS, urinary tract, neuromuscular junction, drug intoxication- clinical uses of cholinesterase inhibitors
Unit 6	Adrenergic activating & sympathomimetic drugs <ul style="list-style-type: none">- conditions in which blood flow/blood pressure is to be enhanced- conditions in which the blood flow is to be reduced- cardiac applications- pulmonary applications- ophthalmic applications- genitourinary applications- CNS applications- Anaphylaxis- Additional therapeutic uses & toxicity Organ – system effects of sympathomimetic drugs: epinephrine, phenylephrine, prazosin, isoproterenol, propranolol

	<p>Cardiovascular System</p> <p>Antihypertensive agents</p> <ul style="list-style-type: none"> - therapeutic choice according to the type of hypertension, age & sex of the patient, severity of the organ damage, presence of cardiovascular risk factors - outpatient therapy of hypertension - nursing management of hypertensive emergencies - pharmacokinetics & pharmacodynamics of: B-blockers, vasodilators, diuretics, Ca-channel blockers, nitrates <p>Students are expected to give example of each drug category.</p> <p>Angina pectoris</p> <ul style="list-style-type: none"> - principles of therapy of angina - angina of effort - vasospastic angina - unstable angina - drug combinations & therapeutic effects <p>Heart failure</p> <ul style="list-style-type: none"> - Administration, dosage, interactions & toxicity monitoring of these drugs: diuretics, ACE inhibitors, B-blockers, digitalis - Nursing management of acute heart failure <p>Cardiac arrhythmias</p> <ul style="list-style-type: none"> - nursing responsibility in pre-treatment evaluation - benefits & risk of anti-arrhythmic therapy - single drugs - combination of drugs - conduction of anti-arrhythmic therapy – emergency cases, recurrent arrhythmias, monitoring & toxicity - pharmacokinetics, adverse effects of the following drugs: quinidine, lidocaine, b-blockers, amiodarone, verapamil <p>Diuretics – Therapeutic modalities in: (furosemide, mannitol)</p> <ul style="list-style-type: none"> - edematous states - heart failure - kidney disease - hepatic cirrhosis - hypertension
Unit 7	<p>Drugs acting on smooth muscle</p> <ul style="list-style-type: none"> - toxicity & contraindications of histamine - use of H₁ receptor antagonists in: allergic reactions, motion sickness, nausea & vomiting of pregnancy, toxicity & drug interactions & contraindications - nursing management in drugs acting on smooth muscle <p>Ergot alkaloids</p> <ul style="list-style-type: none"> - migraine - postpartum hemorrhage

	<ul style="list-style-type: none"> - toxicity drug interaction & contraindications <p>Drugs used in asthma Therapeutic indications, modes of administration, contraindications & drug combinations, adverse effects</p> <ul style="list-style-type: none"> - bronchodilators - corticosteroids - nursing management, routes of administration & dosages of the anti-asthmatics in acute asthma
Unit 8	<p>Sedative hypnotics – treatment of: anxiety states, sleep problems</p> <p>Clinical dosing, toxicity drug interactions & alterations in drug response of sedative hypnotics: barbiturates, Phenobarbital, diazepam, lorazepam</p> <p>Nursing responsibility & management of patients on sedative hypnotics</p>
Unit 9	<p>Anti – seizure drugs</p> <ul style="list-style-type: none"> - therapeutic indications, toxicities, drug interactions, drug withdrawal of anti-seizure drugs in partial & generalized seizures - nursing responsibility/management/teaching of patient taking anti-seizure drugs
Unit 10	<p>Local anaesthetics Therapeutic choices, routes of administration, drug monitoring, toxicity & drug interaction of the following drugs: benzocaine, lidocaine, prilocaine</p> <p>Nursing responsibility/management of patient under local anesthesia</p> <p>General anaesthetics – Intravenous and inhaled anaesthetics Therapeutic choices, drug monitoring, toxicity and drug interactions in different types of anaesthesia.</p> <p>Nursing responsibility/management of patient under general anaesthesia</p> <p>Students are expected to name examples of anaesthetic drugs.</p>
Unit 11	<p>Skeletal muscle relaxants Assessment of neuromuscular transmission, skeletal muscle paralysis, cardiovascular & bronchospastic effects of skeletal muscle relaxants, depolarizing/non-depolarizing</p> <p>Drug interactions</p> <p>Reversal of non – depolarizing relaxants</p> <p>Drugs used to treat acute local spasm of muscle</p> <p>Nursing responsibility/management of patients under skeletal muscle relaxant drugs</p>
Unit 12	<p>Drugs used for the treatment of blood disorders</p> <p>Iron deficiency anemias</p>

	<p>Megaloblastic anemias</p> <ul style="list-style-type: none"> - Indications of iron, treatment strategies for the use of iron deficiency anemias (oral & parenteral therapy), therapeutic ranges, drug interaction, drug combinations, monitoring, adverse effects & toxicities both acute/chronic <p>Indications of Vit. B₁₂</p> <ul style="list-style-type: none"> - Treatment of Vit. B₁₂ deficiency anemias (oral & parenteral) - Therapeutic options, monitoring & toxicities - Folic acid administration in pregnancy & deficiency state <p>Nursing responsibility/management of patients with coagulation disorders</p>
Unit 13	<p>Coagulation disorders - Anticoagulants drugs: heparin, warfarin, ticlopidine, streptokinase</p> <ul style="list-style-type: none"> - clinical indications, routes of administration, monitoring, reversal of over dosage & combination therapy - treatment & prevention of venous/arterial thrombosis <p>Bleeding disorders - anti hemophilic factors, vit. K, plasma fractions</p> <ul style="list-style-type: none"> - clinical indications, routes of administration, monitoring, reversal of over dosage and combination therapy for bleeding disorders <p>Nursing responsibility/management of patients with coagulation disorders</p>
Unit 14	<p>Endocrine disorders</p> <p>Thyroid & anti-thyroid drugs – pharmacokinetics, clinical indications, monitoring & combination therapy associated with coronary heart disease, pregnancy</p> <p>Students will give examples of drugs used and state the following: pharmacokinetics, dosing strategies, monitoring, adverse effects & combination therapy associated with: grave's disease, toxic goiter, ophthalmopathy, pregnancy & neonatal grave's disease</p> <p>Anti-diabetics</p> <ul style="list-style-type: none"> - Insulin preparations, pharmacokinetics, insulin delivery system, benefits & complications of insulin therapy - Combination of insulin/oral anti-diabetic in type 1 & 2 <p>Patient and relatives teaching regarding endocrine disorders – hospital and out patient</p> <p>Nursing responsibility/management of patient with endocrine disorder (general)</p>
Unit 15	<p>Chemotherapeutic Agents</p> <p>Anti-microbials</p> <ul style="list-style-type: none"> - mechanism of action - selective toxicity

	<ul style="list-style-type: none"> - resistance - drug selection - combination therapy - assessment of patient's response <p>Common drugs: penicillin, cephalosporins, vancomycin, rifampin, ciprofloxacin, metronidazole – indications, routes of administration, dose monitoring, allergies & assessment of patient's response, therapeutic safety & toxicity, combination therapy</p> <p>Nursing responsibility/management of patient on anti-microbial regimen</p> <p>Anti-fungal</p> <ul style="list-style-type: none"> - routes of administration - indication of fungal coverage - adverse effects & toxicities - Examples are: nystatin, amphotericin B, fluconazole <p>Nursing responsibility/management of patient on anti-fungal regimen</p> <p>Anti-retroviral therapy</p> <ul style="list-style-type: none"> - pharmacokinetics, recommended dosages, routes & timing of administration, resistance, common side effects & common drug interactions - Examples are: Zidovudine (AZT), nevirapine, saquinavir <p>Nursing responsibility/management of patient on anti-retroviral therapy</p> <p>Interferons</p> <ul style="list-style-type: none"> - pharmacokinetics, indications, combination therapy, assessment of patient response & side effects <p>Nursing responsibility/management of patient on interferon regimen</p> <p>Anthelmintic drugs</p> <p>Ascariasis, enterobius vermicularis, trichinosis, taenia saginata, echinococcus granulosus</p> <ul style="list-style-type: none"> - drug of choice, pharmacokinetics, clinical dosages, modes of administration, combination therapy & common adverse effects on the above diseases. <p>Nursing responsibility/management of patient on anthelmintic treatment</p> <p>Cancer chemotherapy – clinical indications, mechanism of action, pharmacokinetics, dosing schedule, monitoring, toxicities, drug resistance, outcome of combination therapy (adjuvants), evaluation of response:</p> <ul style="list-style-type: none"> - Cell cycle specific – methotrexate, mercaptopurine, fluoracil, cytarabine, bleomycin, etoposide, vincristine - Cell cycle non-specific – busulfan, cyclophosphamide,
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	doxorubicin, cisplatin Nursing responsibility/management of patient on chemotherapy
Unit 16	Vaccines & immunoglobulins <ul style="list-style-type: none"> - concepts of active & passive immunization - recommended routine childhood immunization schedule - recommended immunization for adult traveler - vaccines: TT, measles, poliomyelitis, diphtheria, influenza, hep A & B <p>The students are expected to present vaccine clinical trials for discussion.</p> <p>Nursing responsibility/management/teaching on vaccines.</p>
Unit 17	Poisoning, drug over dose & antidotes <ul style="list-style-type: none"> - deliberate, accidental & self poisoning – principles of treatment <p>Pharmacokinetics, acute & chronic toxicities, measures for reversal of addiction of the following:</p> <ul style="list-style-type: none"> - specific poisoning are: cyanide, menthol, hydrocarbons, ethylene glycol, volatile solvents, heavy metals, herbicides, pesticides, drugs for torture/interrogation/judicial execution <p>non-medical use of drugs –tobacco, ethyl alcohol, psychodysleptics & stimulants</p> <p>Nursing responsibilities/management of patient: poisoning, drug over dose.</p> <p>Patient education of hazardous outcomes & psychotherapy assistance</p>
	Students are expected to present recent drug trials/research of their choice during the course

Outcome:

The students will learn to collate the clinical impact & effect of drugs in nursing process and to understand the process/regimen of medical treatment that is incorporated with nursing diagnosis and plan of care.

Suggested reading:

Drug Therapy in Nursing, Lippincott, Diane S. Aschenbrenner, Samantha J. Venable

Basic & Clinical Pharmacology, 9th ed., Katzung G.

Journals on Clinical Pharmacy/drug trial research publications

2. MS-NU 612 – Advanced Pathophysiological Applications

Unit 1	<p>Pathophysiologic processes in infectious illnesses</p> <ul style="list-style-type: none"> - microbial factors - host susceptibility
Unit 2	<p>Inflammatory mechanism</p> <ul style="list-style-type: none"> - exudates and cellular infiltration
Unit 3	<p>Systemic responses to infection</p> <ul style="list-style-type: none"> - neutrophilia - monocytes - lymphadenopathy <p><u>Note:</u> Student will present a case study in relation to medical diagnosis/treatment and nursing process</p>
Unit 4	<p>Common Cardiovascular Illnesses</p> <ul style="list-style-type: none"> - Coronary artery disease – epidemiology, response of the heart to atherosclerosis, regulation of myocardial perfusion and oxygenation - Angina (stable, unstable) – clinical picture/symptoms, physiologic basis of treatment - Congestive Heart Failure – Physiologic changes & effects, factors governing cardiac output, systolic & diastolic dysfunction, physiologic basis of treatment <p><u>Note:</u> One case study to be presented by the student in relation to medical diagnosis/treatment and nursing process</p>
Unit 5	<p>Common Respiratory Disorders</p> <ul style="list-style-type: none"> - Pneumonia – pathogenesis, host factor, microbial factors, clinical picture, physiologic basis of treatment - Chronic obstructive pulmonary disease – epidemiology, pathologic changes in the lungs, clinical presentation, physiologic basis of treatment - Lung cancer – types of lung cancer (squamous, adenocarcinoma, large cell and small cell), carcinogenesis, diagnosis and symptoms, physiology of treatment - Tuberculosis – infectious process & diagnosis, clinical presentation, physiology of treatment <p><u>Note:</u> The students will present one case study of their selected choice of above respiratory diseases in relation to medical diagnosis/treatment and nursing process.</p>
Unit 6	<p>Common Disorders of Musculoskeletal System</p> <ul style="list-style-type: none"> - Chronic fatigue syndrome – diagnostic criteria, symptoms, pathogenesis, physiologic basis of treatment - Plantar fasciitis – diagnostic criteria, symptoms, physiologic basis of treatment - Low back pain – anatomy, disc degeneration, symptoms, physiologic basis of treatment - Fibromyalgia – pathogenesis, histologic changes, physiologic basis of treatment - Arthritis – pathophysiologic changes, clinical

	<p>presentation/symptoms, common types of arthritis, physiologic basis of management</p> <p><u>Note:</u> The students will present a one case study of selected disease in relation to medical diagnosis/treatment and nursing process.</p>
Unit 7	<p>Gastrointestinal and Hepatic disorders</p> <ul style="list-style-type: none"> - Gastroenteritis – pathophysiologic process, microorganism causing the disease, physiologic basis of treatment - Peptic Ulcer Disease – pathogenesis, clinical presentation/symptoms, diagnostic test, physiologic basis of treatment - Irritable Bowel Syndrome – physiology of treatment - Gastroesophageal Reflux Disease – clinical presentation/symptoms, physiologic basis of treatment - Hepatitis A, B & C – Differential diagnosis of each type of hepatitis, physiologic basis of treatment of each type, clinical picture/symptoms of each type, vaccination <p><u>Note:</u> The students will present one case study of selected disease in relation to medical diagnosis/treatment and nursing process</p>
Unit 8	<p>Common Genitourinary Disorders</p> <ul style="list-style-type: none"> - Urinary tract infection – pathophysiologic mechanism, diagnosis/symptoms, physiologic basis of treatment - Sexually transmitted diseases - Chlamydia trachomatis, neisseria gonorrhoea, syphilis, bacterial vaginosis, trichomonas vaginalis, candidiasis <p>Discuss the following of each disease: pathophysiology, epidemiology, diagnosis/clinical picture/symptoms, predisposing factors, physiologic basis of treatment</p> <p><u>Note:</u> The students will present one case study of selected disease in relation to medical diagnosis/treatment and nursing process.</p>
Unit 9	<p>Common Hematologic Disorders</p> <ul style="list-style-type: none"> - Iron deficiency anemia – clinical picture/symptoms/cause, hematologic effects of iron deficiency, clinical test for iron deficiency, physiologic basis of treatment - Infectious mononucleosis – pathogenesis, signs & symptoms/clinical picture, physiologic basis of treatment - AML, ALL, CML – differential diagnosis of each, clinical picture/symptoms, physiologic effect, physiologic basis of treatment <p><u>Note:</u> The students will present one case study of selected disease in relation to medical diagnosis/treatment and nursing process</p>
Unit 10	<p>HIV Disease – epidemiology, mode of transmission, genetic composition of HIV, immunologic changes in HIV, stages of HIV disease (acute infection, asymptomatic stage, early symptomatic stage, late symptomatic stage, advanced HIV), diagnosis, medical</p>

	<p>management, monitoring disease progression and therapeutic effectiveness of vaccines for prevention</p> <p><u>Note:</u> Students are expected to present a case study regarding HIV in relation to medical diagnosis/treatment and nursing process</p>
Unit 11	<p>Alteration in Fluid and Electrolytes</p> <ul style="list-style-type: none"> - Edema – Causes, manifestation, assessment and treatment - Fluid volume deficit – Causes, manifestation, diagnosis/treatment - Fluid volume excess – Causes, manifestation, diagnosis/treatment - Hyponatremia & Hypernatremia – Cause, manifestations, diagnosis/treatment - Hypokalemia & Hyperkalemia – Cause, manifestation, diagnosis/treatment - Hypocalcemia & Hypercalcemia – Cause, manifestation, diagnosis/treatment <p><u>Note:</u> Students are expected to present a case study on any of the above disorders in relation to medical diagnosis/treatment, and nursing process.</p>
Unit 12	<p>Acid Base Balance</p> <ul style="list-style-type: none"> - Metabolic acidosis & Respiratory acidosis – Causes, manifestations, differential diagnosis, clinical picture/symptoms, physiologic basis of treatment - Metabolic alkalosis & Respiratory alkalosis – Causes, manifestations, differential diagnosis, clinical picture/symptoms, physiologic basis of treatment. <p><u>Note:</u> The students are expected to present a case study of selected disorder in relation to medical diagnosis/treatment and nursing process.</p>

It is suggested that all case studies will be using NURSING PROCESS/CARE PLAN MAPPING.

Suggested reading:

Advance Pathophysiology – Applied to Clinical Practice, Lippincott, Maureen Groer

Pathophysiology – Concepts of Altered Health States, 6th ed., Carol Mattson Porth

3. MS-NU – 613 – Acute Symptoms Management

Unit 1	Respiratory system – airway management (oxygen therapy/administration, endotracheal intubation/extubation, nursing management and care of patients on mechanical ventilation, types/modes of mechanical ventilation, ETT/tracheostomy suctioning, blood gas interpretation/monitoring, chestphysio therapy/incentive spirometry, intra-pleural drainage insertion) <ul style="list-style-type: none"> - Nursing care and management of patient with acute respiratory distress syndrome (ARDS) - Nursing care of patient with: pneumothorax, pleural effusion, pulmonary embolism
Unit 2	Cardiovascular system – hemodynamic monitoring (CVP, measuring pulmonary artery pressure, cardiac output measurement technique, invasive blood pressure), basic interpretation of common arrhythmias (SB, ST, PVC, A- fib, V fib, V tach, SVT/PSVT), mega code blue/ACLS/crash cart, defibrillation, transcutaneous pacing, pericardiocentesis, nursing care/management of patients for critically with cardiovascular involvement <ul style="list-style-type: none"> - Nursing care of patient with: CHF, CAD, MI, Stable/Unstable angina, pre & post CABG
Unit 3	Neurological status <ul style="list-style-type: none"> - Nursing care and management of patient in coma - Nursing care and management of semi-conscious patient - Nursing care, management and monitoring of patients with intra-cranial pressure (cerebral edema, brain tumors, herniation)
Unit 4	Nutrition <ul style="list-style-type: none"> - Administration/nursing management & care of patient on total parenteral nutrition (TPN) - Administration/nursing management & care of patient on continuous feeding pump
Unit 5	GI system – Administration/nursing management in bladder irrigation
Unit 6	Nursing interventions in patients with multiple organ system failure
Unit 7	Nursing intervention and care of patient in shock
Unit 8	Nursing responsibilities in treatment regimen of the critically ill patient.
Unit 9	Nursing care and responsibilities of critically isolated patients
Unit 10	Administration and calculation of inotropic drugs: <ul style="list-style-type: none"> - dopamine - dobutamine
Unit 11	Nursing care of patients with electrolyte imbalance
Unit 12	Relieving pain and providing comfort
Unit 13	Patient Management: Intergumentary System <ul style="list-style-type: none"> - pressure ulcers - leg ulcers - wound assessment - wound care - burn patients (1st, 2nd and 3rd degree)

Suggested reading:

Nursing Intervention for the Critically Ill, Shuva Das Gupta

Critical Care Nursing – A Holistic Approach, 8th ed., Patricia Gonce Morton, Dorrie K. Fontaine, Carolyn M. Hodak, Barbara M. Gallo

4. MS- NU 614 – Clinical Practicum for Clinical Nursing

In clinical practicum, the students are expected to perform the procedures stated in Health Assessment and Acute Symptoms Management.

- The students must perform with a mentor
- The students are expected to present a report regarding “Related Learning Experience” two times per month during the period of practicum.
- The student can also perform any procedures other than stated in the syllabus

NOTE:

ALL PROCEDURES PERFORM MUST USE NURSING PROCESS/CARE PLAN MAPPING TO ENHANCE CRITICAL THINKING AND NURSING CLINICAL DECISION.

5. MS-NU 615 – Research Project

The student will do an in-depth study in area of their interest other than defined in courses, utilizing appropriate research methodology. This is guided and approved by faculty members and adviser.

The final presentation must be evaluated/graded by project/thesis committee, faculty and adviser.

Specialization Course 2-Outline

Nursing Management

1. MS-NU 621 – Resource Management in Nursing Setting

Unit 1	Personnel Management <ul style="list-style-type: none">- Health manpower planning- Staff Recruitment/ selecting, credentialing, assigning, retaining, promoting and terminating- Health manpower management- Job evaluation/performance evaluation/job descriptions- Discipline
Unit 2	Staff Development <ul style="list-style-type: none">- Philosophy and function of staff development- Staff development model- Types of staff development- The need for continuing nurses education
Unit 3	Managing Resources Responsibly <ul style="list-style-type: none">- The history of health care financing- Understanding the cost of health care- Sources of health care funding- Understanding budgeting- Cost awareness
Unit 4	Building and Discovering Resources <ul style="list-style-type: none">- Building effective work group- Personal and group empowerment- Creating and managing fiscal resources- Computer information system and productivity management- Nurse staffing and scheduling
Unit 5	Personal Resources <ul style="list-style-type: none">- Courage- Conviction- Creativity- Coping skills

Suggested reading:

Managing and Coordinating Nursing Care, 2nd ed., Janice R. Ellis, Celia L. Hartley

Professional Practice of Nursing Administration, 3rd ed., Lillian Simms, Sylvia A. Price, Naomi E. Ervin

Introduction to Management and Leadership for Nurse Managers, 3rd ed., Russell C. Swansburg, Richard J. Swansburg

2. MS-NU 622 – Nursing Leadership in Organization

Unit 1	Concepts/definition/philosophy/principles of Administration
Unit 2	Nature of Administration
Unit 3	Difference between administration and management
Unit 4	Relationship between leadership and management
Unit 5	Management in Health Care Delivery System <ul style="list-style-type: none"> - Scope of management - Functions of management - Techniques of management - Types of management
Unit 6	Mapping the Service Environment <ul style="list-style-type: none"> - Components of the service environment - Stakeholders and their interest - Influencing the near environment - Needs and demands - Working with your environment map
Unit 7	Nursing Service Administration <ul style="list-style-type: none"> - Organizational planning for hospital nursing service - Basis and goals of philosophy/objectives of nursing service in hospital - Organization and management of nursing service unit - Factors influencing ward management
Unit 8	Planning Nursing organization and administration <ul style="list-style-type: none"> - Emergence of a nurse executive - Profession & professionalism - Integrated professional nursing administration - Operation: Professional nursing administration - Authority and responsibility - Delegation and decentralization - Public relation - Communication - Coordination/supervision & control - Staffing – Role of nursing manager/administrator in staffing
Unit 9	Hospital Administration <ul style="list-style-type: none"> - Definition of hospital - Philosophy/objective/scope/function of the hospital - Hospital departments - Policy, rules and regulation of hospital
Unit 10	Leadership <ul style="list-style-type: none"> - Significance of a leader - Qualities of leadership - Qualities of a Nurse to be efficient leader
Unit 11	Concept: Manager behavior & leader behavior
Unit 12	Leadership vs. headship
Unit 13	Transformational leadership <ul style="list-style-type: none"> - The nurse executive as a leader - The development of a leader - Leadership styles and theories - New age leadership

	<ul style="list-style-type: none"> - Developing leaders and followers - The continuum – based leadership model
Unit 14	<p>Decision Making and judgment in Nursing</p> <ul style="list-style-type: none"> - Steps in decision making - Information technology and decision making - Techniques in decision making - What decisions do nurses make - What are clinical judgment - Towards a framework for decision making and error prevention – skill based failure and rule based failure - Decision analysis

Suggested reading:

Nursing Administration, BT Basavanthappa

Nursing Services – Management and Administration, S.L. Goel, R. Kumar

Clinical Decision Making and Judgment in Nursing, Carl Thompson, Dawn Dowding

Managing in Health and Social Care, Vivien Martin, Euan Henderson

Professional Practice of Nursing Administration, 3rd ed., Lillian M. Simms, Sylvia A. Price, Naomi E. Ervin

Introduction to Management and Leadership for Nurse Managers, 3rd ed., Russell C, Swansburg, Richard J. Swansburg

Suggested reading:

Psychology, 3rd ed., by: Peter Gray

Current Issues in Nursing by: Joanne Mc Closkey, Helen K. Grace

Hilgard's Introduction to Psychology by: Rita L. Atkinson, Richard C. Atkinson, Edward E. Smith, Daryl J. Bem, Susan Nolen – Hoeksema

University of Health Sciences – Handbook of Behavioral Sciences for Medical and Dental Students, by: Mowadat H. Rana, Sohail Ali, Mansoor Mustafa

3. MS- NU 623- Theoretical & Scientific Basis for Advance Practice

Unit 1	Development and progress: Theories and challenges <ul style="list-style-type: none">- Theories for development and progress- Continuing the progress: challenges and paradoxes
Unit 2	Strategies for theory development <ul style="list-style-type: none">- Theory-practice theory strategy- Practice-theory strategy- Research- theory strategy- Theory- research- theory strategy- Integrated approach to theory development- Tools for concept and theory development
Unit 3	Theory description
Unit 4	Theory analysis
Unit 5	Theory critique
Unit 6	Theory testing
Unit 7	Theoretical thinking and practical wisdom: challenges for the future <ul style="list-style-type: none">- Theoretical nursing and theory development- Theoretical nursing and nursing education- Theoretical nursing and nursing administration- New stages.....milestone- On practical wisdom

Suggested reading:

Theoretical Nursing: Development & Progress, Lippincott, 3rd and 4th ed., Afaf Ibrahim Meleis

4. MS-NU 624 – Nursing Management Clinical Practicum

In nursing administration clinical practicum, the students are expected to perform various administrative tasks in clinical area – ranging from head nurse, supervisor, and ward manager.

- It is expected that the student will work collaboratively with the institution's nursing services management.
- The student will work with a mentor or adviser
- The students are expected to present a report regarding "Related Learning Experience" two times per month during the period of practicum.

5. MS-NU 625 – Research Project

The student will do an in-depth study of a topic of own choice other than listed in the syllabus. The project/thesis must be approved by the faculty and adviser.

Final presentation must be evaluated/graded by thesis/project committee, faculty & adviser.

Specialization Course 3-Outline

Nursing Education

1. MS – NU 631 - Teaching and The Teacher

Unit 1	Anatomy & Physiology of teaching <ul style="list-style-type: none">- The teacher- The student- Content of teaching- Functions of teaching – diagnostic, prescriptive and evaluative function
Unit 2	Principles of Teaching <ul style="list-style-type: none">- Basic principles in good teaching – learning situations – Learner’s characteristics, teaching principles- Burton’s principle of teaching
Unit 3	Concept of Teaching <ul style="list-style-type: none">- Definitions of teaching- Authoritarian teaching behavior- Democratic Teaching behavior- Laissez faire teaching behavior- Characteristics of good teaching & triumph marks of good teaching- Roles of the teacher in nursing- Communication process in teaching
Unit 4	Dimensions of teacher behavior <ul style="list-style-type: none">- Sincerity vs. insincerity- Active participation vs. lack of interest- Learning behavior vs. teaching behavior- Lucidity vs. ambiguity
Unit 5	Modification of teacher behavior <ul style="list-style-type: none">- Simulated social skill training- Assumptions of simulation technique, elements of simulated training, advantages of simulated teaching- Use of Stimulated social skill training
Unit 6	Innovations in teaching <ul style="list-style-type: none">- Team teaching- Educational games- Personalized system of instruction (PSI)
Unit 7	Microteaching <ul style="list-style-type: none">- Definition of microteaching- Microteaching approach- Teaching skills- Microteaching procedure- Advantages of microteaching

Suggested reading:

Nursing Education, BT Basavanthappa, Jaypee Brothers

Nursing Education Journal

2. MS – NU 632 – Management in Teaching – Learning Process

Unit 1	Steps in teaching activities <ul style="list-style-type: none"> - Planning - Organizing - Leading - Controlling
Unit 2	Learning categories and levels of learning <ul style="list-style-type: none"> - Domains or categories of learning - Analysis of competencies - Cognitive behavior / psychomotor behavior / affective behavior
Unit 3	Steps of model of activities <ul style="list-style-type: none"> - Instructional objectives - Entering behavior - Instructional procedure - Performance assessment
Unit 4	Learning & Learning characteristics <ul style="list-style-type: none"> - Characteristics of learning - Domains of learning
Unit 5	Factors that influence learning <ul style="list-style-type: none"> - Learning experiences and behavioral objectives - Teaching – learning environment - Motivation toward objectives - Development of skills

Suggested reading:

Nursing Education, BT Basavanthappa, Jaypee Brothers

Nursing Education Journal

3. MS – NU 633 – Planning for Teaching – Learning in Nursing

Unit 1	Task analysis <ul style="list-style-type: none"> - Characteristics of task analysis - Classification of task analysis - Identification of nursing situations
Unit 2	<ul style="list-style-type: none"> - Concept formation, interpretation of data, application of principles and facts - Competencies
Unit 3	Identification of teaching objectives <ul style="list-style-type: none"> - Identification of task - Conversion of nursing task to competencies - Common activities in nursing converted to competencies
Unit 4	Taxonomies of educational objective <ul style="list-style-type: none"> - Concept of taxonomy - Taxonomic categories / domains - Domains of instructional objectives - Stating instructional objectives as learning outcomes

Unit 5	<p>Guidance and Counseling in Nursing Education</p> <ul style="list-style-type: none"> - Need for guidance counseling - Meaning of guidance / meaning of counseling - Interrelated guidance and counseling - Scope of guidance and counseling in nursing education - Assumptions and principles of guidance counseling - Types of guidance / educational guidance in nursing / identification of students' problems - Strategies for educational guidance / phases of counseling / approaches to counseling - Attributes and skills required of a counselor
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Suggested reading:

Nursing Education, BT Basavanthappa, Jaypee Brothers

Nursing Education Journal

4. MS- NU 634 – Nursing Education Practicum

In nursing education practicum, the students are expected to perform various educational tasks in classroom and clinical area – ranging from teaching, lesson planning, supervising teachers, and educational management

- It is expected that the student will work collaboratively with the institution's nursing schools / colleges – Dean / Principals / Existing Instructors.
- The student will work with a mentor or adviser
- The students are expected to present a report regarding "Related Learning Experience" in nursing education two times per month during the period of practicum.

5. MS-NU 635 –Research Project

The student will do an in-depth study of a topic of own choice other than listed in the syllabus. The project/thesis must be approved by the faculty and adviser.

Final presentation must be evaluated / graded by thesis/project committee, faculty & adviser.