

**STUDY & EVALUATION SCHEME
OF
BACHELOR OF SCIENCES
IN NURSING
(B.Sc. NURSING)**

(B.Sc. NURSING - I YEAR/ II SEMESTER)

[Applicable w.e.f. Academic Session 2021-22 till revised]



**INTEGRAL UNIVERSITY, LUCKNOW
DASALI, P.O. BAS-HA KURSI ROAD,
LUCKNOW – 226026**

Website: www.iul.ac.in

(Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow)

STUDY & EVALUATION SCHEME

BACHELOR OF SCIENCES IN NURSING

(B.Sc. NURSING)

(W.e.f. July 2021)

I – Year

II - Semester

S. No.	Code No.	Name of the Subject	Periods			Credits	Evaluation Scheme				Subject Total
			L	T	P		Sessional		Exam		
							CT	TA	Total	ESE	
1.	NR 107	Applied Biochemistry & Applied Nutrition and Dietetics	4	1	0	5	15	10	25	75	100
2.	NR 108	Nursing Foundations (I&II)	5	1	0	6	15	10	25	75	100
3.	NR 109	Health / Nursing Informatics & Technology	1	1	0	2	15	10	25	25	50
4.	NR 110	Nursing Foundation Lab (I&II)	0	0	6	3	30	20	50	50	100
		Total	10	03	06	16	75	50	125	225	350

L: Lecture

T: Tutorials

P: Practical

C: Credit

CT: Class Test

TA: Teacher Assessment

ESE: End Semester Examination

Sessional Total: Class Test + Teacher Assessment

Subject Total: Sessional Total + End Semester Examination (ESE)

**SUBJECT NAME: APPLIED BIOCHEMISTRY & APPLIED NUTRITION
AND DIETETICS**

SUBJECT CODE: NR 107

**L T P
2 0 0**

APPLIED BIOCHEMISTRY

PLACEMENT: II SEMESTER

THEORY: 2 Credit (40 Hours)

DESCRIPTION: The course is designed to assist the students to acquire knowledge of the normal biochemical composition and functioning of human body, its alterations in disease conditions and to apply this knowledge in the practice of nursing

COMPETENCIES: On completion of the course, the students will be able to

1. Describe the metabolism of carbohydrates and its alterations
2. Explain the metabolism of lipids and its alterations
3. Explain the metabolism of proteins and amino acids and its alterations
4. Explain clinical enzymology in various disease conditions
5. Explain acid base balance, imbalance and its clinical significance
6. Describe the metabolism of hemoglobin and its clinical significance
7. Explain different function tests and interpret the findings
8. Illustrate the immunochemistry

COURSE OUTLINE

UNIT-I CARBOHYDRATES, LIPIDS & PROTEINS

(25 hours)

CARBOHYDRATES

1. Digestion, absorption and metabolism of carbohydrates and related disorders
2. Regulation of blood glucose
3. Diabetes Mellitus – type 1 & type 2, symptoms, complications & management in brief
4. Investigations of diabetes mellitus
 - a. OGTT: indications, procedure, interpretation and types of GTT curve
 - b. Mini GTT, extended GTT, GCT, IV GTT
 - c. HbA1c (only definition)
5. Hypoglycemia – definition & causes

LIPIDS:

1. Fatty acids: definition, classification
2. Definition & clinical significance of MUFA & PUFA, essential fatty acids, trans fatty acids
3. Digestion, absorption & metabolism of lipids & related disorders
4. Compounds formed from cholesterol
5. Ketone bodies (name, types & significance only)
6. Lipoprotein – types & functions (metabolism not required)
7. Lipid profile
8. Atherosclerosis (in brief)

PROTEINS:

Classification of amino acids based on nutrition, metabolic rate with examples

1. Digestion, absorption & metabolism of protein & related disorders
2. Biologically important compounds synthesized from various amino acids (only names)
3. In born errors of amino acid metabolism – only aromatic amino acids (in brief)
4. Plasma protein – types, function & normal values
5. Causes of proteinuria, hypoproteinemia, hyper-gamma globinemia
6. Principle of electrophoresis, normal & abnormal electrophoresis pattern (in brief)

UNIT- II: CLINICAL ENZYMOLOGY & ACID BASE MAINTENANCE, HEME CATABOLISM, ORGAN FUNCTION TESTS, BIOCHEMICAL PARAMETERS & NORMAL VALUES ONLY & IMMUNOCHEMISTRY: (15 hour)

CLINICAL ENZYMOLOGY:

1. Isoenzymes – definition & properties
2. Enzymes of diagnostic importance in
 - a. Liver disease – ALT, AST, ALP, GGT
 - b. Myocardial infarction-CK, cardiac troponins, AST, LDH
 - c. Muscle diseases-CK, Aldolase
 - d. Bone diseases-ALP
 - e. Prostate cancer-PSA, ACP

ACID BASE MAINTENANCE:

1. pH – definition, normal value
2. Regulation of blood pH – blood buffer, respiratory & renal
3. ABG – normal values
4. Acid base disorders – types, definition & causes

HEME CATABOLISM:

1. Heme degradation pathway
2. Jaundice – type, causes, urine & blood investigations (van den berg test)

ORGAN FUNCTION TESTS (BIOCHEMICAL PARAMETERS & NORMAL VALUES ONLY):

1. Renal
2. Liver
3. Thyroid

IMMUNOCHEMISTRY:

1. Structure & function of immunoglobulin
2. Investigations & interpretation-ELISA

RECOMMENDED BOOKS:

1. Textbook of Medical Biochemistry, Jaypee, 8th Edition MN Chatterjea Rana Shinde
2. Textbook of Biochemistry for Medical Students, Jaypee 8th Edition DM Vasudevan
3. Biochemistry for Nurses, Jaypee 2nd Edition Jacob Anthikad
4. Medical Biochemistry for Nurses 2nd Edition , Jaypee, Kasarla Rajeshwar Reddy
5. Biochemistry for Students, Jaypee, 12th Edition , V.K. Malhotra

APPLIED NUTRITION AND DIETETICS

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PLACEMENT: II SEMESTER

THEORY & LAB: 3 Credits (60 Hours)

Theory: 45 hours

Lab: 15 hours

DESCRIPTION: The course is designed to assist the students to acquire basic knowledge and understanding of the principles of Nutrition and Dietetics and apply this knowledge in the practice of nursing

COMPETENCIES: On completion of the course, the students will be able to

1. Identify the importance of nutrition in health and wellness
2. Apply nutrient and dietary modifications in caring patients
3. Explain the principles and practices of Nutrition and Dietetics
4. Identify nutritional needs of different age groups and plan a balanced diet for them
5. Identify the dietary principles for different diseases
6. Plan therapeutic diet for patients suffering from various disease conditions
7. Prepare meals using different methods and cookery rules

COURSE OUTLINE

UNIT-III: INTRODUCTION TO NUTRITION, CARBOHYDRATES & PROTEINS, FATS & VITAMINS, (13hours)

INTRODUCTION TO NUTRITION:

Concepts: Definition of Nutrition & Health

1. Malnutrition – under nutrition & over nutrition
2. Role of nutrition in maintaining health
3. Factors affecting food and nutrition

Nutrients Classification

1. Macro and micronutrients
2. Organic & inorganic
3. Energy yielding & non-energy yielding

Food

1. Classification – food groups
2. Origin

CARBOHYDRATES:

1. Composition – starches, sugar and cellulose

1. Recommended Daily Allowance (RDA)
2. Dietary sources
3. Functions

Energy

1. Unit of energy-Kcal
2. Basal Metabolic Rate (BMR)
3. Factors affecting BMR

PROTEINS:

1. Composition
2. Eight essential amino acids
3. Functions
4. Dietary sources
5. Protein requirement-RDA

FATS:

1. Classification-saturated & unsaturated
2. Calorie value
3. Functions
4. Dietary sources of fats and fatty acids
5. Fat requirements-RDA

VITAMINS:

1. Classification-fat soluble & water soluble
2. Fat soluble-vitamin A, D, E and K
3. Water soluble-Thiamine (vitamin B1), Riboflavin (vitamin B2), Nicotinic Acid, Pyridoxine (vitamin B6), Pantothenic Acid, Folic Acid, vitamin B12, Ascorbic Acid (vitamin C)
4. Functions, Dietary Sources & Requirement-RDA of every vitamin

UNIT-IV: MINERALS, BALANCED DIET, & NUTRITIONAL DEFICIENCY DISORDERS: (16hours)

MINERALS:

1. Classification – major minerals (calcium, phosphorus, sodium, potassium and magnesium) and trace elements
2. Functions
3. Dietary sources
4. Requirement-RDA

BALANCED DIET:

1. Definition, principles, steps
2. Food guide – basic four food groups
3. RDA – definition, limitation, uses
4. Food exchange system
5. Calculation of nutritive values of food
6. Dietary fiber
7. **Nutritional across life cycle**
 - a. Meal planning / menu planning – definition, principles, steps
 - b. Infant and Young Child Feeding (IYCF) guidelines – breast feeding, infant foods
 - c. Diet plan for different age groups – children, adolescents and elderly
 - d. Diet in pregnancy – nutritional requirements and balanced diet plan
 - e. Anemia in pregnancy-diagnosis, diet for anemic pregnant women, iron & folic acid supplementation and counseling
 - f. Nutrition in lactation-nutritional requirements, diet for lactating mothers, complementary feeding / weaning

NUTRITIONAL DEFICIENCY DISORDERS:

1. Protein energy malnutrition – magnitude of the problem, causes, classification, signs & symptoms, severe acute malnutrition (SAM), management & prevention, nurses' role
2. Childhood obesity-signs & symptoms, assessment, management & prevention and nurses' role
3. Vitamin deficiency disorders – vitamin A, B, C & D deficiency disorders: causes, signs & symptoms, management & prevention and nurses' role
4. Mineral deficiency diseases-iron, iodine and calcium deficiencies: causes, signs & symptoms, management & prevention and nurses' role

UNIT-V: THERAPEUTIC DIETS & COOKERY RULES AND PREVENTION OF NUTRIENTS, NUTRITION ASSESSMENT AND NUTRITION EDUCATION & NATIONAL NUTRITIONAL PROGRAMMES AND ROLE OF NURSE & FOOD SAFETY (16hours)

THERAPEUTIC DIETS:

1. Definition, objectives, principles
2. Modifications – consistency, nutrients
3. Feeding techniques
4. Diet in diseases – obesity, diabetes mellitus, CVD, underweight, renal diseases, hepatic disorders, constipation, diarrhea, pre and post operative period

COOKERY RULES AND PREVENTION OF NUTRIENTS:

1. **Cooking** – Methods, advantages and disadvantages
2. Preservation of nutrients
3. Measures to prevent loss of nutrients during preparation
4. Safe food handling and storage of foods
5. Food preservation
6. Food additives and food adulteration
7. Prevention of Food Adulteration Act (PFA)
8. Food standards

NUTRITION ASSESSMENT AND NUTRITION EDUCATION:

1. Objectives of nutritional assessment
2. Methods of assessment-clinical examination, anthropometry, laboratory & biochemical assessment, assessment of dietary intake including Food Frequency Questionnaire (FFQ) method
3. Nutrition education education-purposes, principles and methods

NATIONAL NUTRITIONAL PROGRAMMES AND ROLE OF NURSE:

1. Nutritional problems in India
2. National nutritional policy
3. National nutritional programmes: Vitamin Supplementation, Anemia Mukh Bharat Programme, Integrated Child Development Services (ICDS), Mid-day Meal Scheme (MDMS), National Iodine Deficiency Disorders Control Programme (NIDDCP), Weekly Iron Folic Acid Supplementation (WIFS) and others as introduced
4. Role of nurse in every programme

FOOD SAFETY

- a. Definition Food safety considerations & measures

- b. Food safety regulatory measures in India – Relevant Acts
- c. Five keys to safer food
- d. Food storage , food handling and cooking
- e. General Principles of food storage of food item (ex milk meat)
- f. Role of food handlers in food borne disease
- g. Essential steps in safe cooking practice

RECOMMENDED BOOKS:

1. Nursing Manual of Nutriotion & Therapeutic Diet, Jaypee, T.K. Indrani, 2nd Edition
2. Essential of Food & Nutrition for Nurses, Lotus Publisher, 2nd Edition Shabnam Masih
3. William'S Basic Nutrition & Diet Therapy, 14th Edition, Elsevier Publisher, Stace Nix
4. A Textbook of Nutrition For Nurses, Jaypee , Molly Sam,N,Geetha.

SUBJECT NAME: NURSING FOUNDATIONS-II

SUBJECT CODE: NR 108

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PLACEMENT: II SEMESTER

THEORY: 6 Credits (120 Hours)

(Lab-L/Skill Lab-SL): 3 Credits (120 hours)

(Clinical): 4 Credits (320 hours)

1. Identify and meet the hygiene needs of patients
2. Demonstrate fundamental skills of assessment, planning, implementation and evaluation of nursing care using nursing process approach in supervised clinical settings
3. Assess the nutritional needs of patients and provide relevant care under supervision
4. Identify and meet the elimination needs of patient
5. Interpret findings of specimen testing applying the knowledge of normal values
6. Promote oxygenation based on identified oxygenation needs of patients under supervision
7. Review the concept of fluid, electrolyte balance integrating the knowledge of applied physiology
8. Apply the knowledge of the principles, routes, effects of administration of medications in administering medication
9. Calculate conversions of drugs and dosages within and between systems of measurements
10. Demonstrate knowledge and understanding in caring for patients with altered functioning of sense organs and unconsciousness
11. Explain loss, death and grief
12. Describe sexual development and sexuality
13. Identify stressors and stress adaption modes
14. Integrate the knowledge of culture and cultural differences in meeting the spiritual needs
15. Explain the introductory concepts relevant to models of health and illness in patient care
16. Perform first aid measures during emergencies

***Modules used in teaching / learning:**

II Semester: First Aid – 40 Hours (including basic CPR)

COURSE OUTLINE

UNIT-I: HEALTH ASSESSM;THE NURSING PROCESS: (33 HOURS)

HEALTH ASSESSMENT:

1. Interview techniques, Observation techniques, Purposes of health assessment, Process of health assessment.
2. Health history
3. Physical examination:

- a. Methods – inspection, palpation, percussion, auscultation, olfaction
- b. Preparation for examination: patient and unit
- c. General assessment
- d. Assessment of each body system
- e. Documenting health assessment findings

THE NURSING PROCESS:

1. Critical Thinking Competencies, Attitude for Critical thinking, Levels of Critical Thinking in Nursing
2. Nursing Process Overview
 - a. Assessment**
 - i. Collection of data: Types, sources, methods
 - ii. Organizing data
 - iii. Validating data
 - iv. Documenting data
 - b. Nursing Diagnosis**
 - i. Identification of client problems, risks and strengths
 - ii. Nursing diagnosis statement – parts, types, formulating, guidelines for formulating nursing diagnosis
 - iii. NANDA approved diagnoses
 - iv. Difference between medical and nursing diagnosis
 - c. Planning**
 - i. Types of planning
 - ii. Establishing priorities
 - iii. Establishing goals and expected outcomes – purposes, types, guidelines, components of goals and outcome statement
 - iv. Types of nursing interventions, selecting interventions: Protocols and standing orders
 - v. Introduction to Nursing: intervention. classification and nursing outcome classification
 - vi. Guidelines for writing care plan
 - d. Implementation**
 - i. Process of implementing the plan of care
 - ii. Types of care – direct and indirect
 - iii. **Evaluation**
 - iv. Evaluation process, documentation and reporting

UNIT-II: NUTRITIONAL NEEDS, HYGIENE; ELIMINATION NEEDS & DIAGNOSTIC TESTING: (23 HOURS)

NUTRITIONAL NEEDS:

1. Importance
2. Factors affecting nutritional needs
3. Assessment of nutritional status
4. Review: special diets – solid, liquid, soft
5. Review on therapeutic diets
6. Care of patient with Dysphagia , Anorexia, Nausea, Vomiting
7. Meeting nutritional needs: principles, equipment, procedure, indications
 - a. Oral
 - b. Enteral: Nasogastric / Orogastric
 - c. Introduction to other enteral feeds – types, indications, Gastrostomy, Jejunostomy
 - d. Parenteral-TPN

HYGIENE:

1. Factors Influencing Hygiene Practice
2. Hygienic care: indications and purposes, effects of neglected care
 - a. Care of Skin – (Bath, feet and nail, hair care)
 - b. Care of pressure points
 - c. Assessment of pressure Ulcers using Braden Scale and Norton Scale
 - d. Pressure ulcers – causes, stages and manifestations, care and prevention
 - e. Perineal care / Meatal care
 - f. Oral care, care of eyes, ears and nose including assistive devices (eye glasses, contact lens, dentures, hearing aid)

ELIMINATION NEEDS:

1. Urinary Elimination
 - a. Review of physiology of urine elimination, composition and characteristics of urine
 - b. Factors influencing urination
 - c. Alteration in urinary elimination
 - d. Facilitating urine elimination : assessment, types, equipment, procedures and special considerations
 - e. Providing urinal / bed pan
 - f. Care of patients with

- i. Condom drainage
 - ii. Intermittent Catheterization
 - iii. Indwelling urinary catheter and urinary drainage
 - iv. Urinary diversions
 - v. Bladder irrigation
2. Bowel elimination
- a. Review of physiology of bowel elimination, composition and characteristics of feces
 - b. Factors affecting bowel elimination
 - c. Alteration in bowel elimination
 - d. Facilitating bowel elimination: assessment, equipment, procedures
 - i. Enemas
 - ii. Suppository
 - iii. Bowel wash
 - iv. Digital evacuation of impacted feces
 - v. Care of patients with ostomies (Bowel Diversion Procedures)

DIAGNOSTIC TESTING:

1. Phases of diagnostic testing (pre-test, intra-test & post-test) in common investigations and clinical implications
 - a. Complete Blood Count
 - b. Serum Electrolyte
 - c. LFT
 - d. Lipid / Lipoprotein profile
 - e. Serum Glucose – AC, PC, HbA1c
 - f. Monitoring Capillary Blood Glucose (Glucometer Random Blood Sugar-GRBS)
 - g. Stool Routine Examination
 - h. Urine Testing – Albumin, Acetone, pH specific gravity
 - i. Urine culture, routine, timed urine specimen
 - j. Sputum culture
 - k. Overview of radiologic & endoscopic procedures

UNIT-III: OXYGENATION NEEDS, FLUID, ELECTROLYTE AND ACID – BASE BALANCES: (16 HOURS)

OXYGENATION NEEDS:

1. Review of cardiovascular and respiratory physiology
2. Factors affecting respiratory functioning
3. Alteration in respiratory functioning
4. Conditions affecting
 - a. Airway

- b. Movement of air
- c. Diffusion
- 5. Oxygen transport
- 6. Alterations in oxygenation \
- 7. Nursing interventions to promote oxygenation: assessment, types, equipment used & procedure
 - a. Maintenance of patient airway
 - b. Oxygen administration
 - c. Suctioning – oral, tracheal
 - d. Chest physiotherapy – percussion, vibration & postural drainage
 - e. Care of chest drainage – principles & purposes
 - f. Pulse oximetry – factors affecting measurement of oxygen saturation using pulse oximeter, Interpretation
- 8. Restorative & continuing care
 - a. Hydration
 - b. Humidification
 - c. Coughing techniques
 - d. Breathing exercises
 - e. Incentive spirometry

FLUID, ELECTROLYTE AND ACID – BASE BALANCES:

- 1. Review of physiological regulation of fluid, electrolyte and acid – base balances
- 2. Factors Affecting Fluid, Electrolyte and Acid – Base Balances
- 3. Disturbances in fluid volume:
 - a. Deficit
 - Hypovolemia
 - Dehydration
 - b. Excess:
 - Fluid overload
 - Edema
- 4. Electrolyte imbalances (hypo and hyper)
 - a. Acid-base imbalances
 - Metabolic – acidosis & alkalosis
 - Respiratory – acidosis & alkalosis
 - b. Intravenous therapy
 - Peripheral venipuncture sites
 - Types of IV fluids
 - Calculation for making IV fluid plan
 - Complications of IV fluid therapy
 - Measuring fluid intake and output

- Administering blood and blood components
- Restricting fluid intake
- Enhancing fluid intake

UNIT-IV: ADMINISTRATION OF MEDICATIONS, SENSORY NEEDS&CARE OF TERMINALLY ILL, DEATH AND DYING

(29 HOURS)

ADMINISTRATION OF MEDICATIONS:

1. Introduction – definition of medication, administration of medication, drug nomenclature, effects of drugs, forms of medications, purposes, pharmacodynamics and pharmacokinetics
2. Factors influencing Medication Action
3. Medication orders and prescriptions
4. Systems of measurement
5. Medication dose calculation
6. Principles, 10 rights of medication administration
7. Errors in medication administration
8. Routes of administration
9. Storage and maintenance of drugs and nurses responsibility
10. Terminologies and abbreviations used in prescriptions and medications orders
11. Developmental considerations
12. Oral, sublingual and buccal routes: equipment, procedure
13. Introduction to parenteral administration of drugs – intramuscular, intravenous, subcutaneous, intradermal: location of site, advantages and disadvantages of the specific sites, indication and contraindications for the different routes and sites
14. Equipment – syringes & needles, cannulas, infusion sets – parts, types, sizes
15. Types of vials and ampoules, preparing injectable medicines from vials and ampoules
 - a. Care of equipment: decontamination and disposal of syringes, needles infusion sets
 - b. Prevention of needle-stick injuries
16. Topical administration: types, purposes, site, equipment, procedure
 - a. Application to skin & mucous membrane
 - b. Direct application of liquids, gargle and swabbing the throat
 - c. Insertion of drug into body cavity: suppository / medicated packing in rectum / vagina
 - d. Instillations: Ear, eye, nasal, bladder and rectal
 - e. Irrigations: Eye, ear, bladder, vaginal and rectal
 - f. Spraying: Nose and throat

- Inhalation: Nasal, oral, endotracheal , tracheal (steam, oxygen and medications) – purposes, types, equipment, procedure, recording and reporting of medications administered
- Other parenteral routes: meaning of epidural, intrathecal, intraosseous, intraperitoneal, intrapleural, intraarterial

SENSORY NEEDS:

1. Introduction
2. Components of sensory experience – reception, perception & reaction
3. Arousal mechanism
4. Factors affecting sensory function
5. Assessment of sensory alterations – sensory deficit, deprivation, overload & sensory poverty
6. Management
 - Promoting meaningful communication (patients with Aphasia, artificial airway & Visual and Hearing impairment)

Care of Unconscious patients

1. Unconsciousness: definition, causes & risk factors, Pathophysiology, stages of unconsciousness, clinical manifestations
2. Assessment and nursing management of patient with unconsciousness, complications

CARE OF TERMINALLY ILL, DEATH AND DYING:

1. Loss – types
2. Grief, bereavement & mourning
3. Types of grief responses
4. Manifestations of grief
5. Factors influencing loss & grief responses
6. Theories of grief & Loss-Kubler Ross 5 stages of dying
7. The R process model (Rando's)
8. Death – definition, meaning, types (brain & circulatory deaths)
9. Signs of impending death
10. Dying patient's Bill of Rights
11. Care of dying patient
12. Physiological changes occurring after death
13. Death declaration, certification, autopsy, Embalming
14. Last office / death care
15. Counseling & supporting grieving relatives
16. Placing body in the Mortuary
17. Releasing body from Mortuary

18. Overview: Medico-legal cases, advance directives, DNI/DNR, organ donation, euthanasia

UNIT-V: PSYCHOSOCIAL NEEDS (A-D):

SELF CONCEPT, SEXUALITY, STRESS AND ADAPTATION – INTRODUCTORY CONCEPTS, CONCEPTS OF CULTURAL DIVERSITY AND SPIRITUALITY, NURSING THEORIS: INTRODUCTION (19 HOURS)

A .SELF CONCEPT:

1. Introduction
2. Components (Personal Identify, Body Image, Role Performance, Self Esteem)
3. Factors affecting self concept
4. Nursing management

B. SEXUALITY:

- Sexual development throughout life
- Sexual health
- Sexual orientation
- Factors affecting sexuality
- Prevention of STI's unwanted pregnancy, avoiding sexual harassmt and abuse
- Dealing with inappropriate sexual behavior

C.STRESS AND ADAPTATION – INTRODUCTORY CONCEPTS:

1. Introduction
2. Source, effects, indicators & types of stress
3. Types of stressors
4. Stress Adaption – General Adaption Syndrome (GAS), Local Adaption Syndrome (LAS), Manifestation of stress – physical & psychological
5. Coping strategies / mechanism
6. Stress management
 - a. Assist with coping and adaption
 - b. Creating therapeutic environment
7. Recreational and diversion therapies

D.CONCEPTS OF CULTURAL DIVERSITY AND SPIRITUALITY:

1. Cultural diversity
 - a. Cultural concepts – culture, subculture, multicultural, diversity, race, acculturation, assimilation
 - b. Transcultural nursing
 - c. Cultural competence
 - d. Providing culturally responsive care
2. Spirituality
 - a.

- b. Concepts – faith, hope, religion spirituality, spiritual wellbeing
- c. Factors affecting spirituality
- d. Spiritual problems in Acute, Chronic, Terminal illness & near-death experience
 - o Dealing with spiritual distress / problems

NURSING THEORIS: INTRODUCTION:

1. Meaning & definition, purposes, types of theories with examples, overview of selected nursing theories – Nightingale, Orem, Roy
2. Use of theories in nursing practice

RECOMMENDED BOOKS:

1. Kozeer & Erab's Fundamental Of Nursing, Audrey J Berman, Shirlee Synder, 9th Edition
Pearson Publication
2. Principles & Practice, Sr Nancy, Volume 1 & 6th Edition
3. upeStephanie's Principles & Practice Of Nursing , Volume 2nd , Sr Nancy
4. Fundamental Of Nursing , 7th Edition , Potter Perry
5. Lippincott Manual Of Nursing Practice , 10th Edition, Wolters Kluwer, Lippincott Williams
& Wikins
6. Textbook Of Nursing Book, 2nd Edition , I Clement

**SUBJECT NAME: HEALTH / NURSING INFORMATICS &
TECHNOLOGY**

SUBJECT CODE: NR 109

PLACEMENT: II SEMESTER

COMPETENCIES

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Theory : 02 Credit

(40 Hours)

Description: This course is designed to equip novice nursing students with knowledge and skills necessary to deliver efficient informatics – led health care services.

Competencies: On completion of the course, the students will be able to

1. Develop a basic understanding of computer application in patient care nursing practice.
2. Apply the knowledge of computer and information technology in patient care and nursing education, practice administration and research.
3. Describe the principles of health informatics and its use in developing efficient healthcare
4. Demonstrate the use of information system in healthcare for patient care and utilization of nursing data.
5. Demonstrate the knowledge of using Electronic Health Records (HER) system in clinical practice.
6. Apply the knowledge of interoperability standards in clinical setting
7. Apply the knowledge of information and communication technology in public health promotion
8. Utilize the functionalities of Nursing Information System (NIS) system in nursing
9. Demonstrate the skills of using data in management of health care
10. Apply the knowledge of the principles of digital and legal issue in clinical practice
11. Utilize evidence – based practices in informatics and technology for providing quality patient care
12. Update and utilize evidence based practices in nursing education, administration , and practice.

UNIT : I INTRODUCTION TO COMPUTER APPLICATIONS FOR PATIENT CARE DELIVERY SYSTEM AND NURSING PRACTICE. (10 Hours)

1. Use of computer in teaching, learning research and nursing practice
2. Windows, MS office : word Excel , Power Point
3. Internet
4. Literature search
5. Statistical packages
6. Hospital management information system

UNIT : II PRINCIPLES OF HEALTH INFORMATICS & INFORMATION SYSTEM IN HEALTH CARE (07 Hours)

PRINCIPLES OF HEALTH INFORMATICS

1. Health informatics – needs, objectives and limitations
2. Use of data, information and knowledge for more effective healthcare and better health

INFORMATION SYSTEM IN HEALTH CARE

1. Introduction to the role and architecture of information system in modern healthcare environments
2. Clinical information System (CIS) Hospital Information System (HIS)

UNIT: III SHARED CARE & ELECTRONIC HEALTH RECORDS & PATIENT SAFETY & CLINICAL RISK (7 Hours)

SHARED CARE & ELECTRONIC HEALTH RECORDS

1. Challenges of capturing rich patient histories in a computable form
2. Latest global developments and standard to enable lifelong electronic health records to be integrated from disparate system

PATIENT SAFETY & CLINICAL RISK

1. Relationship between patient safety and informatics
2. Function and application of the risk management process

UNIT: IV CLINICAL KNOWLEDGE & DECISION MAKING , e HEALTH PATIENTS AND THE INTERNET & USING INFORMATION IN HEALTHCARE MANAGEMENT

CLINICAL KNOWLEDGE & DECISION MAKING

1. Role of knowledge management in improving decision – making in both the clinical and policy contexts
2. Systematized nomenclature of Medicine, Clinical Terms, SNOMED CT to ICD -10-CM Map standardized nursing terminologies (NANDA, NOC) Omaha system

e HEALTH PATIENTS AND THE INTERNET

1. Use of information and communication technology to improve or enable personal and public health care introduction to public health informatics and role of nurses

USING INFORMATION IN HEALTHCARE MANAGEMENT

1. Components of Nursing Information system (NIS)
2. Evaluation analysis and presentation of healthcare data to inform decisions in the management of health – care organizations

UNIT: V INFORMATION LAW & GOVERNANCE IN CLINICAL PRACTICE & HEALTH CARE QUALITY & EVIDENCE BASED PRACTICE

INFORMATION LAW & GOVERNANCE IN CLINICAL PRACTICE

1. Ethical – legal issues pertaining to healthcare information in contemporary clinical practice
2. Ethical – legal issues related to digital health applied to nursing

HEALTH CARE QUALITY & EVIDENCE BASED PRACTICE

1. Use of scientific evidence in improving the quality of healthcare and technical and professional informatics standards

SUBJECT NAME: NURSING FOUNDATIONS-II LAB

SUBJECT CODE: NR 110

(SKILL LAB)

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PLACEMENT: II SEMESTER

Skill Lab: 120 hours

COMPETENCIES

1. Implement basic nursing techniques in meeting hygienic needs of patients
2. Develop skills in assessment, planning, implementation and evaluation of nursing care using nursing process approach
3. Identify and meet the Nutritional needs of patients
4. Plan and implement care to meet the elimination needs of patient
5. Develop skill in instructing and collecting samples for investigation
6. Perform simple lab tests and analyze & interpret common diagnostic values
7. Identify patients with impaired oxygenation and demonstrate skill in caring for patients impaired oxygenation
8. Identify and demonstrate skill in caring for patients with fluid, electrolyte and acid – base imbalance
9. Assess, plan, implement & evaluate the basic care needs of patients with altered functioning of sense organs and unconsciousness
10. Care of terminally ill and dying patients
11. Identify stress and assist patients to adopt various coping strategies
12. Acquire skills in assessing and performing First Aid during emergencies

Use of Mannequins and Simulators

S. No.	COMPETENCIES	MODE OF TEACHING
Semester-II		
1	Sponge bath, oral hygiene, Perineal care	Mannequin
2	Nutritional assessment	Standardized patient
3	Nasogastric tube feeding	Trainer/ Simulator
4	Providing bed pan & urinal	Mannequin
5	Catheter care	Catheterization Trainer
6	Bowel wash, enema, insertion of suppository	Simulator/ Mannequin
7	Oxygen administration – face mask, venture mask, nasal prongs	Mannequin
8	Administration of medication through parenteral route – IM, SC, ID, IV	IM injection trainer, ID injection trainer, IV arm (Trainer)
9	Last office	Mannequin
10	CPR	Mannequin

SUBJECT NAME: CLINICAL POSTING

SUBJECT CODE: NR111

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PLACEMENT: II SEMESTER

Clinical: 320 hours

Clinical – 320 Hours (4 Credits)

COMPETENCIES: SEMESTER-II (16 weeks x 20 hours / weeks)

CLINICAL UNIT: General Medical / Surgical Wards

DURATION IN WEEKS: 4

PROCEDURAL COMPETENCIES/CLINICAL SKILLS:

Health Assessment

1. Nursing / health history taking
2. Perform physical examination:
 - a. General
 - b. Body systems
3. Use various methods of physical examination – inspection, palpation, percussion, auscultation, olfaction
4. Identification of system wise deviations
5. Documentation of findings

NURSING PROCESS

1. Prepare Nursing care plan for the patient based on the given case scenario

Nutritional needs

1. Nutritional assessment
2. Preparation of Nasogastric tube feed
3. Nasogastric tube feeding

Elimination needs

Providing urinal bed pan

1. Insertion of suppository
2. Enema
3. Urinary catheter care
4. Care of urinary drainage

Diagnostic testing

1. Specimen Collection
 - a. Urine routine and culture

- b. Stool routine
- c. Sputum Culture
2. Perform simple lab tests using reagent strips
 - a. Urine – Glucose, Albumin, Acetone, pH, Specific gravity
3. Blood-GRBS monitoring

OXYGENATION NEEDS, FLUIDS, ELECTROLYTE AND ACID-BASE BALANCES

Oxygenation needs

1. Oxygen administration methods
 - a. Nasal Prongs
 - b. Face Mask/ Venturi Mask
2. Steam inhalation
3. Chest physiotherapy
4. Deep breathing & coughing exercises
5. Oral suctioning

Fluid, Electrolyte and acid-base balances

1. Maintaining intake output chart
2. Identify & report complication of IV therapy
3. Observe blood & blood component therapy
4. Identify & report complications of blood & blood component therapy

ADMINISTRATION OF MEDICATIONS

1. Calculate Drug Dosages
2. Preparation of lotions & solutions
3. Administer Medications
 - a. Oral
 - b. Topical
 - c. Inhalations
 - d. Parenteral
 - Intradermal
 - Subcutaneous
 - Intramuscular
 - Instillations
 - e. Eye, ear, nose instillation of medicated drops, nasal sprays, irrigations

SENSORY NEEDS AND CARE OF UNCONSCIOUS PATIENTS, CARE OF TERMINALLY ILL, DEATH AND DYING

Sensory Needs and Care of Unconscious Patients

1. Assessment of level of Consciousness using Glasgow Coma Scale

Terminally ill, death and dying

2. Death Care