

Table 1. First year Basic B.Sc. Nursing

Subjects	Theory Hours	Practical / Clinical Hours	Hours
1. English	60		
2. Anatomy	60		
3. Physiology	60		
4. Nutrition	60		
5. Biochemistry	30		
6. Nursing Foundations	265 + 200	450	
7. Psychology	60		
8. Microbiology	60		
9. Introduction to Computers	45		
10 Kannada	30		
11 Library work / Self Study			50
12 Co-curricular activities			50
TOTAL	930	450	100
TOTAL HOURS = 1480 HRS			

Table2. Second Year Basic B.Sc. Nursing

Subjects	Theory Hours	Practical / Clinical Hours	Hours
1. Sociology	60		
2. Pharmacology	45		
3. Pathology	30		
4. Genetics	15		
5. Medical Surgical Nursing (Adult including geriatrics)	210	720	
6. Community Health Nursing	90	135	
7. Communication and Educational Technology	60 + 30		
8. Library work / Self Study			50
9. Co-curricular activities			35
TOTAL	540	855	85
TOTAL HOURS = 1480 HRS			

9. Scheme of Examination

First year

Table 6 (A): Distribution of Subjects and Marks for Internal Assessment and University Examination

Subject	Internal Assessment	University Examination	Total
Theory			
1. Anatomy & Physiology	40	100	140
2. Nutrition and Biochemistry	40	100	140
3. Nursing Foundation	40	100	140
4. Psychology	40	100	140
5. Microbiology	40	100	140
6. English	40	100	140
7. Introduction to Computer*	40	100*	140
Practical and Viva Voce			
1. Nursing Foundations	100	100	200

*** Respective colleges will conduct examination for Introduction to Computer and English as college examination. Marks to be sent to the university.**

All practical examinations must be held in the respective clinical areas.
One internal and one external examiner should jointly conduct practical /clinical examination for each student.

Second Year

Table 7. Distribution of Subjects and Marks for Internal Assessment and University Examination

Subject	Internal Assessment	University Examination	Total
Theory			
8. Sociology	40	100	140
9. Medical Surgical Nursing- I	40	100	140
10. Pharmacology, Pathology, Genetics	40	100	140
11. Community Health Nursing – I	40	100	140
12. Communication and Educational Technology	40	100	140
Practical and Viva Voce	Internal Assessment	University Examination	Total
2. Medical – Surgical Nursing - I	100	100	200

SECTION III

COURSE DESCRIPTION

English

Placement – First Year
Time: Theory – 60 hours

Course Description: The Course is designed to enable students to enhance ability to comprehend spoken and written English (and use English) required for effective communication in their professional work. Students will practice their skills in verbal and written English during clinical and classroom experience.

Unit	Time (Hrs)	Learning Objectives	Content	Teaching Learning Activities	Assessment Methods
I	10	* Speak and write grammatically correct English	* Review of Grammar * Remedial study of Grammar * Building Vocabulary * Phonetics * Public Speaking	* Demonstrate use of dictionary * Class room conversion * Exercise on use of grammar * Practice in public speaking	* Essay type * Objective type * Fill in the blanks * Para phrasing
II	30	* Develop ability to read, understand and express meaningfully the prescribed text	* Read and comprehend prescribed course books	* Exercise on : ▪ Reading ▪ Summarizing ▪ Comprehension	* Essay type * Short Answers * Essay Types
III	10	* Develop writing skills	* Various forms of Composition ▪ Letter writing ▪ Note taking ▪ Precise writing ▪ Nurses notes ▪ Anecdotal records ▪ Diary writing ▪ Reports on health problems etc. ▪ Resume/CV	* Exercises on writing ▪ Letter writing ▪ Nurses Notes ▪ Precise ▪ Diary ▪ Anecdote ▪ Health problems ▪ Story writing ▪ Resume/CV * Essay Writing ▪ Discussion on written reports/	* Essay type * Assessment of the skills based on the check list.

				documents	
IV	6	*Develop skill in spoken English	* Spoken English <ul style="list-style-type: none"> ▪ Oral report ▪ Discussion ▪ Debate ▪ Telephonic Conversation 	* Exercise on: <ul style="list-style-type: none"> ▪ Debating ▪ Participating in Seminar, panel, symposium ▪ Telephonic Conversation 	*Assessment of the skills based on the check list.
V	4	*Develop skill in listening comprehension	* Learning Comprehension <ul style="list-style-type: none"> ▪ Media, audio, video, speeches etc 	* Exercise on: <ul style="list-style-type: none"> ▪ Listening to audio, video tapes and identify the key points 	* Assessment of the skills based on the check list.

Scheme of University Examination

There shall be one theory paper of three hours duration carrying 100 marks. Distribution of Type of Questions and Marks for English shall be as given under. There shall be no practical examination.

Type of Questions	No. of Questions	Marks	Sub-total
Long Essay (LE)	2	10	20
Short Essay (SE)	10	5	50
Short Answer (SA)	10	3	30
Total Marks			100

Anatomy

Placement – First year

Time: Theory – 60 hours

Course Description: The course is designed to enable students to acquire knowledge of the normal structure of various human body systems and understand the alterations in anatomical structures in disease and practice of nursing.

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
I	5	* Describe the anatomical terms, organization of human body and structure of cell, tissues, membranes and glands.	<p>Introduction to Anatomical terms organization of the human body</p> <ul style="list-style-type: none"> * Human Cell structure * Tissues – Definition, Types, characteristics, classification, location, functions & formation. * Membranes and glands – classification and structure <p>Alterations in disease Applications and implications in nursing</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using charts, microscopic slides, Skeleton & torso * Demonstrate cells, types of tissues membranes and glands * Record book
II	6	* Describe the structure & function of bones and joints	<p>The Skeletal System</p> <ul style="list-style-type: none"> * Bones – types, structure, Axial & Appendicular Skeleton, * Bone formation and growth * Description of bones * Joints classification and structure <p>Alterations in disease Applications and implications in nursing</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using charts, skeleton, loose bones and joins * Record book
III	7	* Describe the structure and function of muscles	<p>The Muscular System</p> <ul style="list-style-type: none"> * Types and structure of muscles * Muscle groups <p>Alterations in disease Applications and implications in nursing</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using chart, models and films * Demonstrate muscular movements * Record book

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
IV	6	* Describe the structure & function of nervous system	<p>The nervous System</p> <ul style="list-style-type: none"> * Structure of neurologia & neurons * Somatic Nervous system <ul style="list-style-type: none"> ▪ Structure of brain, spinal chord, cranial nerves, spinal nerves, peripheral nerves * Autonomic Nervous System – Sympathetic, parasympathetic <ul style="list-style-type: none"> ▪ Structure, location <p>Alterations in disease Applications and implications in nursing</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using models, charts, slides, specimens * Record book
V	6	Explain the structure & functions of sensory organs	<p>The Sensory Organs</p> <ul style="list-style-type: none"> * Structure of skin, eye, ear, nose tongue, (Auditory and olfactory apparatus) <p>Alterations in disease Applications and implications in nursing</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using models, charts, slides, specimens * Record book
VI	7	Describe the structure & function of circulatory and lymphatic system	<p>Circulatory and lymphatic system</p> <ul style="list-style-type: none"> * The Circulatory System <ul style="list-style-type: none"> ▪ Blood – Microsoft structure ▪ Structure of Heart ▪ Structure of blood vessels- Arterial & Venous System ▪ Circulation: Systemic, pulmonary, coronary * Lymphatic System <ul style="list-style-type: none"> ▪ Lymphatic vessels & lymph ▪ Lymphatic tissues <ul style="list-style-type: none"> - Thymus gland - Lymph nodes - Spleen - Lymphatic tissues <p>Alterations in disease Applications and implications in nursing.</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using models, charts, slides, specimens <ul style="list-style-type: none"> • Record book

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
VII	5	* Describe the structure & functions of respiratory system.	<p>The Respiratory System</p> <ul style="list-style-type: none"> * Structure of the organs of respiration * Muscles of respiration: Intercostals and Diaphragm <p>Alterations in disease Applications and implications in nursing.</p> <p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none"> * Lecture discussion * Explain using models, torso, charts slides, specimens * Record book
VIII	6	* Describe the structure & functions of digestive system.	<p>The Digestive System</p> <ul style="list-style-type: none"> * Structure of Alimentary tract and accessory organs of digestion <p>Alterations in disease Applications and implications in nursing</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using models, torso, charts slides, specimens * Record book
IX	4	* Describe the structure & functions of excretory system	<p>The Excretory system (Urinary)</p> <ul style="list-style-type: none"> * Structure of organs of urinary * System: Kidney, Ureters, urinary, bladder, urethra, structure of skin <p>Alterations in disease Applications and implications in nursing.</p> <p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none"> * Lecture discussion * Explain using models, torso, charts slides, specimens * Record book
X	4	* Describe the structure & functions of endocrine system	<p>The Endocrine system</p> <ul style="list-style-type: none"> * Structure of Pituitary, Pancreas, thyroid, Parathyroid, thymus and adrenal glands <p>Alterations in disease Applications and implications in nursing</p> <p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none"> * Lecture discussion * Explain using models, torso, charts slides, specimens * Record book

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
XI	4	* Describe the structure & functions of reproductive system	<p>The Reproductive system including breast</p> <ul style="list-style-type: none"> * Structure of female reproductive organs * Structure of male reproductive organs * Structure of breast <p>Alterations in disease Applications and implications in nursing</p> <p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none"> * Lecture discussion * Explain using models, torso, charts slides, specimens * Record book

Physiology

Placement – First Year

Time: Theory – 60 Hours

Course Description: The Course is designed to assist the students to acquire knowledge of the normal physiology of various human body systems and understand the alterations in physiology in diseases and practice of nursing.

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
I	4	* Describe the physiology of cell, tissues, membranes and glands	<p>Cell Physiology</p> <ul style="list-style-type: none"> * Tissue formation, repair * Membranes & glands – functions <p>Alterations in disease Applications and implications in nursing</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion
II	4	* Describe the bone formation and growth and movements of skeleton system	<p>Skeletal System</p> <ul style="list-style-type: none"> * Bone formation & growth * Bones – Functions and movements of bones of axial and appendicular skeleton, bone healing * Joints and joint movement <p>Alterations in disease Applications and implications in nursing</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using charts, models and films * Demonstration of joint movements
III	4	* Describe the muscle movements and tone and demonstrate muscle contraction and tone	<p>Muscular System</p> <ul style="list-style-type: none"> * Muscle movements, Muscle tone, Physiology of muscle contraction, levels and maintenance of posture <p>Alterations in disease Applications and implications in nursing</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using Charts, models, slides, specimen and films <ul style="list-style-type: none"> • Demonstration of muscle movements, tone and contraction <p>Content and Teaching Learning Activities</p>

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
IV	7	* Describe the physiology of nerve stimulus, reflexes, brain, cranial and spinal nerves * Demonstrate reflex action and stimulus	Nervous System * Functions of Neurologia & neurons * Stimulus & nerve-impulse- definitions and mechanism * Functions of brain, spinal cord, cranial and spinal nerves * Cerebrospinal fluid-composition, circulation and function * Reflex arc, Reflex action and reflexes * Automatic functions – <ul style="list-style-type: none"> ▪ Pain: somatic, visceral and referred ▪ Automatic learning and biofeedback Alterations in disease Applications and implications in nursing Teaching Learning Activities * Lecture discussion * Explain using, Charts, models and films * Demonstrate nerve stimulus, reflex action, reflexes
V	8	* Describe the physiology of blood and functions of Heart * Demonstrate blood cell count, coagulation, grouping Hb: BP and Pulse monitoring	Circulatory System * Blood formation, composition, blood groups, blood coagulation * Hemoglobin: Structure, Synthesis and breakdown, Variation of molecules, estimation * Functions of Heart, Conduction, Cardiac cycle, circulation- Principles, Control, factors influencing BP and Pulse Alterations in disease Applications and implications in nursing Teaching Learning Activities * Lecture discussion * Explain using charts, films * Demonstration of Blood cell count, coagulation, grouping, Haemoglobin estimation, Heart conduction system. * Measurement of pulse, BP
VI	6	* Describe the physiology and mechanisms of respiration * Demonstrates spirometry	The Respiratory System * Functions of respiratory organs * Physiology of respiration * Pulmonary ventilation, Volume * Mechanics of respiration * Gaseous exchange in lungs * Carriage of oxygen & carbon-dioxide * Exchange of gases in tissues * Regulation of respiration, Alterations in disease Applications and implications in nursing.

			<p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none">* Lecture discussion* Explain using Charts, films* Demonstration of spirometry
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Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
VII	6	*Describe the Physiology of digestive system *Demonstrates BMR	<p>The Digestive System</p> <ul style="list-style-type: none"> * Functions of organs of digestive tract. Movements of alimentary tract, Digestion in mouth, stomach, small intestines, Large intestines, Absorption of food. Functions of liver, gall bladder and pancreas * Metabolism of carbohydrates, protein and fat <p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none"> * Lecture discussion * Explain using Charts, films
VIII	5	*Describe the Physiology of excretory system	<p>The Excretory System</p> <ul style="list-style-type: none"> * Functions of kidneys, ureters, urinary bladder & urethra * Composition of urine * Mechanism of urine formation * Functions of skin * Regulation of body temperature * Fluid and electrolyte balance <p>Alterations in disease Applications and implications in nursing.</p> <p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none"> * Lecture discussion * Explain using Charts, films
IX	4	*Describe the physiology of sensory organs	<p>The Sensory Organs</p> <ul style="list-style-type: none"> * Functions of skin, eye, ear, nose, tongue, <p>Alterations in disease Applications and implications in nursing.</p> <p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none"> * Lecture discussion * Explain using Charts, films
X	5	*Describe the physiology of endocrine glands	<p>The Endocrine Glands</p> <ul style="list-style-type: none"> * Functions of Pituitary, pineal body, thymus, Thyroid, parathyroid, pancreas, Suprarenal, Placenta and ovaries & Testes <p>Alterations in disease Applications and implications in nursing.</p>

			<p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none">* Lecture discussion* Explain using Charts, films* Demonstration of BMR
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Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
XI	5	*Describe the physiology of male and female reproductive system	<p>The Reproductive System</p> <ul style="list-style-type: none"> * Reproduction of cells – DNA, Mitosis, Meiosis, spermatogenesis, oogenesis. * Functions of female reproductive organs; Functions breast, Female sexual cycle. * Introduction to embryology * Functions of male reproductive organs, Male function in reproduction, Male fertility system <p>Alterations in disease Applications and implications in nursing.</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using Charts, films models, specimens
XII	2	*Describe the Physiology of Lymphatic and Immunological System	<p>Lymphatic & Immunological System</p> <ul style="list-style-type: none"> * Circulation of lymph * Immunity <ul style="list-style-type: none"> ▪ Formation of T-cells and B cells ▪ Types of Immune response ▪ Antigens ▪ Cytokines ▪ Antibodies <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explain using Charts, films

Scheme of Examination: Anatomy and Physiology

There shall be one paper of three hours duration for Anatomy and Physiology, carrying 100 marks. Section A- shall be Anatomy carrying 50 marks and Section B- Physiology carrying 50 marks. The distribution of type of questions and marks shall be as under. There shall be no practical examination.

**Distribution of Type of Questions and Marks for Anatomy and Physiology
(50 marks for each subject)**

Type of Questions	No. of Questions	Marks	Sub-total
Long Essay (LE)	1	10	10
Short Essay (SE)	5	5	25
Short Answer (SA)	5	3	15
Total Marks			50

Nutrition

Placement: First Year

Time: Theory 60 hours

Course of Description: The course is designed to assist the students to acquire knowledge of nutrition for maintenance of optimum health at different stages of life and its application for practice of nursing

Unit	Time (Hrs)		Learning Objectives	Content and Teaching Learning Activities
	Th	Pr		
I	4		* Describe the relationship between nutrition & Health	<p>Introduction</p> <ul style="list-style-type: none"> * Nutrition: <ul style="list-style-type: none"> ▪ History ▪ Concepts * Role of nutrition in maintaining health * Nutritional problems in India * National nutritional policy * Factors affecting food and nutrition: socio-economic, cultural, tradition, production, system of distribution, life style and food habits etc. * Role of food and its medicinal value * Classification of foods * Food standards * Elements of nutrition: macro and micro * Calorie, BMR <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture Discussion * Explaining using charts * Panel discussion
II	2		* Describe the classification, functions, sources and recommended daily allowances (RDA) of carbohydrates	<p>Carbohydrates</p> <ul style="list-style-type: none"> * Classification * Calorie Value * Recommended daily allowances * Dietary sources * Functions * Digestion, absorption and storage, metabolism of carbohydrates * Malnutrition: Deficiencies and Over consumption <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explaining using charts

Unit	Time (Hrs)		Learning Objectives	Content and Teaching Learning Activities
	Th	Pr		
III	2		* Describe the classification, functions, sources and recommended daily allowances (RDA) of Fats	<p>Fats</p> <ul style="list-style-type: none"> * Classification * Caloric value * Recommended daily allowances * Dietary sources * Functions * Digestion, absorption and storage, metabolism * Malnutrition: Deficiencies and over consumption <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explaining using charts
IV	2		* Describe the classification, functions, sources and recommended daily allowances (RDA) of Proteins	<p>Proteins</p> <ul style="list-style-type: none"> * Classification * Caloric value * Recommended daily allowances * Dietary sources * Functions * Digestion, absorption, metabolism and storage * Malnutrition: Deficiencies and Over consumption <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explaining using charts
V	3		* Describe the daily calorie requirement for different categories of people	<p>Energy</p> <ul style="list-style-type: none"> * Unit of Energy – Kcal * Energy requirements of different categories of people * Measurements of energy * Body Mass Index (BMI) and basic metabolism * Basal Metabolic Rate (BMR) - determination and factors affecting <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explaining using charts * Exercise * Demonstration

Unit	Time (Hrs)		Learning Objectives	Content and Teaching Learning Activities
	Th	Pr		
VI	4		* Describe the classification, functions, sources and recommended daily allowances (RDA) of Vitamins	<p>Vitamins</p> <ul style="list-style-type: none"> * Classification * Recommended daily allowances * Dietary sources * Functions * Absorption, synthesis, metabolism storage and excretion * Deficiencies * Hypervitaminosis <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explaining using charts
VII	4		* Describe the classification, functions, sources and recommended daily allowances (RDA) of Minerals	<p>Minerals</p> <ul style="list-style-type: none"> * Classification * Recommended daily allowances * Dietary sources * Functions * Absorption, synthesis, metabolism storage and excretion * Deficiencies * Over consumption and toxicity <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explaining using charts
VIII	3		* Describe the sources, functions and requirements of Water & electrolytes	<p>Water & electrolytes</p> <ul style="list-style-type: none"> * Water: Daily requirement, regulation of water metabolism, distribution of body water, * Electrolytes: Types, sources, composition of body fluids * Maintenance of fluid & electrolyte balance * Over hydration, dehydration and water intoxication * electrolyte imbalances <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Explaining using charts

Unit	Time (Hrs)		Learning Objectives	Content and Teaching Learning Activities
	Th	Pr		
IX	5	15	<ul style="list-style-type: none"> * Describe the Cookery rules and preservation of nutrients * Prepare and serve simple beverages and different types of foods 	<p>Cookery rules and preservation of nutrients</p> <ul style="list-style-type: none"> * Principles, methods of cooking and serving <ul style="list-style-type: none"> ▪ Preservation of nutrients * Safe Food handling-toxicity * Storage of food * Food preservation, food additives and its principles * prevention of food adulteration Act (PFA) * Food standards * Preparation of simple beverages and different types of food <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Practice session
X	7	5	<ul style="list-style-type: none"> * Describe and plan balanced diet for different categories of people 	<p>Balanced diet</p> <ul style="list-style-type: none"> * Elements * Food groups * Recommended Daily allowance * Nutritive value of foods * Calculation of balanced diet for different categories of people * Planning menu * Budgeting of food * Introduction to therapeutic diets: Naturopathy - diet
XI	4		<ul style="list-style-type: none"> * Describe various national programmes related to nutrition * Describe the role of nurse in assessment of nutritional status and nutrition education 	<p>Role of nurse in nutritional programmes</p> <ul style="list-style-type: none"> * National programmes related to nutrition <ul style="list-style-type: none"> ▪ Vitamin A deficiency programme ▪ National iodine deficiency disorders (IDD) programme ▪ Mid-day meal programme ▪ Integrated child development scheme (ICDS) * National and International agencies working towards food/nutrition <ul style="list-style-type: none"> ▪ NIPCCD, CARE, FAO, NIN, CFTRI (Central food technology and research institute) etc. * Assessment of nutritional status * Nutrition education and role of nurse <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture Discussion * Explaining with * Slide / Film shows * Demonstration of Assessment of nutritional status

Biochemistry

Placement – First Year

Time: Theory –30 Hours

Course Description: The Course is designed to assist the students to acquire knowledge of the normal biochemical composition and functioning of human body and understand the alterations in biochemistry in diseases for practice of nursing.

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
I	3	*Describe the structure Composition and functions of cell *Differentiate between Prokaryote & Eukaryote cell * Identify techniques of Microscopy	Introduction * Definition and significance in nursing * Review of structure, Composition and functions of cell * Prokaryote and Eukaryote cell organization * Microscopy Teaching Learning Activities * Lecture discussion using charts, slides * Demonstrate use of microscope
II	6	* Describe the structure and functions of cell membrane	Structure and functions of Cell membrane * Fluid mosaic model tight junction, Cytoskeleton * Transport mechanism: diffusion osmosis, filtration, active channel, sodium pump * Acid base balance-maintenance & diagnostic tests <ul style="list-style-type: none"> ▪ PH buffers Teaching Learning Activities * Lecture discussion

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
III	6	* Explain the metabolism of carbohydrates	<p>Composition and metabolism of Carbohydrates</p> <ul style="list-style-type: none"> * Types, structure, composition and uses <ul style="list-style-type: none"> ▪ Monosaccharides, Disaccharides, Polysaccharides, Oligosaccharides * Metabolism <ul style="list-style-type: none"> ▪ Pathways of glucose: <ul style="list-style-type: none"> • Glycolysis • Gluconeogenesis: Cori's cycle, Tricarboxylic acid (TCA) cycle • Glycogenolysis • Pentose phosphate Pathways (Hexose mono phosphate) <ul style="list-style-type: none"> ▪ Regulation of blood glucose level <p>Investigations and their interpretations</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion using charts * Demonstration of laboratory tests
IV	4	* Explain the metabolism of Lipids	<p>Composition and metabolism of Lipids</p> <ul style="list-style-type: none"> * Types, Structure, composition and uses of fatty acids <ul style="list-style-type: none"> ▪ Nomenclature, Roles and Prostaglandins * Metabolism of fatty acid <ul style="list-style-type: none"> ▪ Breakdown ▪ Synthesis * Metabolism of triacylglycerols * Cholesterol metabolism <ul style="list-style-type: none"> ▪ Biosynthesis and its Regulation <ul style="list-style-type: none"> • Bile salts and bilirubin • Vitamin D • Steroid hormones * Lipoproteins and their functions <ul style="list-style-type: none"> ▪ VLDLs- IDLs, LDLs and HDLs ▪ Transport of lipids ▪ Atherosclerosis, <p>Investigations and their interpretations</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion using charts * Demonstration of laboratory tests

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
V	6	* Explain the metabolism of Amino acids and Proteins	<p>Composition and metabolism of Amino acids and Proteins</p> <ul style="list-style-type: none"> * Types, structure, composition and uses of Amino acids and Proteins * Metabolism of Amino acids and Proteins <ul style="list-style-type: none"> ▪ Protein synthesis, targeting and Glycosylation ▪ Chromatography ▪ Electrophoresis ▪ Sequencing * Metabolism of Nitrogen <ul style="list-style-type: none"> ▪ Fixation and Assimilation ▪ Urea Cycle ▪ Hemes and chlorophylls * Enzymes and co-enzymes <ul style="list-style-type: none"> ▪ Classification ▪ Properties ▪ Kinetics and inhibition ▪ Control <p>Investigations and their interpretations</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion using charts * Demonstration of laboratory tests
VI	2	* Describe types, composition and utilization of Vitamins & minerals	<p>Composition of Vitamins and minerals</p> <ul style="list-style-type: none"> * Vitamins and minerals: <ul style="list-style-type: none"> ▪ Structure, Classification, Properties, Absorption ▪ Storage & transportation ▪ Normal concentration * Investigations and their interpretation <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion using charts * Demonstration of laboratory tests

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
VII	3	* Describe Immuno-chemistry	<p>Immunochemistry</p> <ul style="list-style-type: none"> * Immune response, * Structure and classification of immunoglobins * Mechanism of antibody production * Antigens: HLA typing * Free radical and Antioxidants * Specialized Protein: Collagen, Elastin, Keratin, Myosin, Lens Protein. * Electrophoretic and Quantitative determination of immunoglobins – ELISA etc. <p>Investigations and their interpretations</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion using charts * Demonstration of laboratory tests

Scheme of Examination: Nutrition and Biochemistry

- There shall be one paper of three hours duration carrying 100 marks. Section A Nutrition of 60 marks and Section B of Biochemistry of 40 marks. There shall be no practical examination.

Distribution of Type of Questions and Marks for Nutrition (60 marks)

Type of Questions	No. of Questions	Marks	Sub-total
Long Essay (LE)	2	10	20
Short Essay (SE)	5	5	25
Short Answer (SA)	5	3	15
Total Marks			60

Distribution of Type of Questions and Marks for Biochemistry (40 marks)

Type of Questions	No. of Questions	Marks	Sub-total
Long Essay (LE)	1	10	10
Short Essay (SE)	3	5	15
Short Answer (SA)	5	3	15
Total Marks			40

Nursing Foundations

Placement: First Year

Time: Theory - 265 hours

Practical - 650 hours
(200 lab and 450 clinical)

Course Description: This course is designed to help the students to develop an understanding of the philosophy, objectives, theories and process of nursing in various Supervised Clinical settings. It is aimed at helping the students to acquire knowledge, understanding and skills in techniques of nursing and practice them in Supervised Clinical settings.

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
I	10	* Describe the concept of health, illness and health care agencies	<p>Introduction</p> <ul style="list-style-type: none"> * Concept of Health: Health – illness continuum * Factors influencing health * Causes and risk factors for developing illness * Body defences: Immunity and immunization * Illness and illness Behavior: * Impact of illness on patient and family * Health Care Services: Health Promotion and Prevention, Primary Care, Diagnosis, Treatment, Rehabilitation and Continuing Care * Health care teams * Types of health care agencies * Hospitals: Types, Organisation and Functions * Health Promotion and Levels of Disease Prevention * Primary Health care and its delivery: Role of nurse <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Visit to health care agencies

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
II	16	<ul style="list-style-type: none"> * Explain concept and scope of nursing * Describe values, code of ethics and professional conduct for nurses of India 	<p>Nursing as a profession</p> <ul style="list-style-type: none"> * Definition and Characteristics of a profession * Nursing: <ul style="list-style-type: none"> ▪ Definition, Concepts, philosophy, objectives ▪ Characteristics, nature and scope of nursing practice ▪ Functions of nurse ▪ Qualities of a nurse ▪ Categories of nursing personnel ▪ Nursing as a profession ▪ History of Nursing in India. * Values: Definition, Types, Values Classification and values in professional Nursing: Caring & Advocacy * Ethics: <ul style="list-style-type: none"> ▪ Definition and Ethical Principles ▪ Code of ethics and professional conduct for nurses. <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Case discussion * Role plays
III	4	<ul style="list-style-type: none"> * Explain the admission and discharge procedure * Performs admission and discharge procedure 	<p>Hospital admission and discharge</p> <ul style="list-style-type: none"> * Admission to the hospital <ul style="list-style-type: none"> ▪ Unit and its preparation-admission bed ▪ Admission procedure ▪ Special considerations ▪ Medico-legal issues ▪ Roles and Responsibilities of the nurse * Discharge from the hospital <ul style="list-style-type: none"> ▪ Types: Planned discharge, LAMA and abscond, Referrals and transfers ▪ Discharge Planning ▪ Discharge procedure ▪ Special consideration ▪ Medico-legal issues ▪ Roles and Responsibilities of the nurse ▪ Care of the unit after discharge <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Lab Practice * Supervised Clinical practice

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
IV	10	<p>*Communicate effectively with patient, families and team members and maintain effective human relations (projecting professional image)</p> <p>* Appreciate the importance of patient teaching in nursing</p>	<p>Communication and Nurse patient relationship</p> <p>* Communication: Levels, Elements, Types, Modes, Process, Factors influencing Communication</p> <ul style="list-style-type: none"> ▪ Methods of Effective Communication, <ul style="list-style-type: none"> • Attending skills • Rapport building skills • Empathy skills ▪ Barriers to effective communication, <p>* Helping Relationship (NPR): Dimensions of Helping Relationships, Phase of a helping relationship</p> <p>* Communicating effectively with patient, families and team members and maintain effective human relations with special reference to communicating with vulnerable group(children, women, physically and mentally challenged and elderly)</p> <p>* Patient Teaching: Importance, Purposes, Process, role of nurse and Integrating teaching in Nursing Process.</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Role play and video film on the nurses interacting with the patient * Practice session on patient teaching * Supervised Clinical Practice

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
V	15	<ul style="list-style-type: none"> * Explain the concept, uses, format and steps of nursing process * Documents nursing process as per the format 	<p>The Nursing Process</p> <ul style="list-style-type: none"> * Critical Thinking and Nursing Judgment <ul style="list-style-type: none"> ▪ Critical Thinking: Thinking and Learning ▪ Competencies, Attitudes for Critical Thinking, Levels of critical thinking in Nursing * Nursing Process Overview: Application in Practice <ul style="list-style-type: none"> ▪ Nursing process format: INC, current format ▪ Assessment - Collection of Data : Types, Sources, Methods - Formulating Nursing Judgment: Data interpretation <ul style="list-style-type: none"> ▪ Nursing Diagnosis - Identification of client problems - Nursing diagnosis statement - Difference between medical and nursing diagnosis ▪ Planning - Establishing Priorities - Establishing Goals and Expected Outcomes - Selection of interventions : Protocols and standing Orders - Writing the Nursing Care Plan ▪ Implementation - Implementing the plan of care ▪ Evaluation - Outcome of care - Review and Modify ▪ Documentation and Reporting <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Exercise * Supervised Clinical Practice

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
VI	4	<ul style="list-style-type: none"> * Describe the purposes, types and techniques of recording and reporting 	<p>Documentation and Reporting</p> <ul style="list-style-type: none"> * Documentation : Purposes of Recording and reporting * Communication within the Health Care Team * Types of records; ward records, medical/nursing records, * Common Record-keeping forms, Computerized documentation * Guidelines for Reporting: Factual Basis, Accuracy, Completeness, currentness, Organization, confidentiality * Methods of Recording * Reporting: Change of shift reports: Transfer reports, incident reports <ul style="list-style-type: none"> • Minimizing legal Liability through effective record keeping <p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Practice Session * Supervised Clinical Practice
VII	15	<ul style="list-style-type: none"> * Describe principles and techniques of monitoring and maintaining vital signs * Monitor and maintain vital signs 	<p>Vital signs</p> <ul style="list-style-type: none"> * Guidelines for taking vital signs : * Body temperature: <ul style="list-style-type: none"> ▪ Physiology, Regulation, Factors affecting body temperature, ▪ Assessment of body temperature: sites, equipments and technique, special considerations ▪ Temperature alterations: Hyperthermia, Heatstroke, Hypothermia <ul style="list-style-type: none"> ▪ Hot and cold applications * Pulse: <ul style="list-style-type: none"> ▪ Physiology & Regulation, Characteristics of the pulse, Factors affecting pulse ▪ Assessment of the pulse: sites, location, equipments and technique, special considerations ▪ Alterations in pulse: * Respiration

			<ul style="list-style-type: none"> ▪ Physiology and Regulation, Mechanics of breathing Characteristics of the respiration, Factors affecting respiration ▪ Assessment of respirations: Technique, special considerations ▪ Alterations in respiration <p>* Blood pressure :</p> <ul style="list-style-type: none"> ▪ Physiology and Regulation, Characteristics of the blood pressure, Factors affecting blood pressure ▪ Assessment of blood pressure: sites, equipments and technique, special considerations ▪ Alterations in blood pressure <p>Recording of vital signs</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Practice * Supervised Clinical Practice
VIII	30	<ul style="list-style-type: none"> * Describe purpose and process of health assessment * Describe the health assessment of each body system * Perform health assessment of each body system 	<p>Health assessment</p> <ul style="list-style-type: none"> * Purposes * Process of Health assessment <ul style="list-style-type: none"> ▪ Health History ▪ Physical examination : <ul style="list-style-type: none"> - Methods-Inspection, Palpation, Percussion, Auscultation, Olfaction - Preparation for examination: patient and unit - General assessment - Assessment of each body system - Recording of health assessment <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Practice on stimulators * Supervised Clinical Practice
IX	5	<ul style="list-style-type: none"> * Identify the various machinery, equipment and linen and their care 	<p>Machinery, Equipment and linen</p> <ul style="list-style-type: none"> * Types: Disposables and reusable- Linen, rubber goods, glass ware, metal, plastics, furniture, machinery * Introduction <ul style="list-style-type: none"> ▪ Indent

			<ul style="list-style-type: none">▪ Maintenance▪ Inventory <p><i>Teaching Learning Activities</i></p> <ul style="list-style-type: none">* Lecture discussion* Demonstration
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Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
X	60	<p>* Describe the basic, psychological needs of patient</p> <p>* Describe the principles and techniques for meeting basic, Physiological and psychosocial needs of patient</p> <p>* Perform nursing assessment, plan implement and evaluate the care for meeting basic, physiological and psychosocial needs of patient</p>	<p>Meeting needs of patient</p> <p>* Basic needs (Activities of daily living)</p> <ul style="list-style-type: none"> ▪ Providing safe and clean environment: <ul style="list-style-type: none"> • Physical-environment: Temperature, Humidity, Noise, Ventilation, light, Odour, pests control • Reduction of physical hazards: fire, accidents • Safety devices: Restraints, side rails, airways, trapeze etc. • Role of nurse in providing safe and clean environment. ▪ Hygiene:- <ul style="list-style-type: none"> • Factors Influencing Hygienic Practice • Hygienic care: Care of the Skin-Bath and pressure points, feet and nail, Oral cavity, Hair Care, Eyes, Ears and Nose ○ Assessment, Principles, Types, Equipments, Procedure, Special Considerations <ul style="list-style-type: none"> - Patient environment: Room Equipment and linen, making patient beds ○ Types of beds and bed making <ul style="list-style-type: none"> ▪ Comfort:- <ul style="list-style-type: none"> - Factors influencing Comfort - Comfort devices <p>* Physiological needs:-</p> <ul style="list-style-type: none"> ▪ Sleep and Rest : <ul style="list-style-type: none"> - Physiology of sleep - Factors affecting sleep - Promoting Rest and sleep - Sleep Disorders ▪ Nutrition :- <ul style="list-style-type: none"> - Importance - Factors affecting nutritional needs - Assessment of nutritional needs - Meeting Nutritional needs: Principles, equipments, procedure and special considerations ○ Oral ○ Enteral : Naso/ Orogastic, gastrostomy ○ Parenteral : <ul style="list-style-type: none"> ▪ Urinary Examination

			<ul style="list-style-type: none"> - Review of Physiology of Urine Elimination, Composition and characteristics of urine. - Factors influencing Urination - Alteration in Urinary Elimination - Types and Collection of urine specimen: Observation, urine testing - Facilitating urine elimination: assessment, types, equipments, procedures and special considerations <ul style="list-style-type: none"> ○ Providing urinal/bed pan ○ Condom drainage ○ Perineal care ○ Catheterization ○ Care of urinary drainage ○ Care of urinary diversions ○ Bladder irrigation ▪ Bowel Elimination - Review of Physiology of Bowel Elimination, Composition and characteristics of faeces - Factors affecting Bowel elimination - Alteration in Bowel Elimination - Types and Collection of specimen of faeces: Observation - Facilitating bowel elimination: assessment, equipments, procedures and special considerations <ul style="list-style-type: none"> ○ Passing of Flatus tube ○ Enemas ○ Suppository ○ Sitz bath ○ Bowel was ○ Care of Ostomies ▪ Mobility and Immobility - Principles of Body Mechanics - Maintenance of normal body Alignment and mobility - Factors affecting body Alignment and mobility - Hazards associated with immobility - Alteration In body Alignment and mobility
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			<ul style="list-style-type: none"> - Nursing interventions for impaired Body Alignment and Mobility: assessment, types, devices used, method and special considerations, rehabilitation aspects <ul style="list-style-type: none"> ○ Range of motion exercises ○ Maintaining body alignment: Positions ○ Moving ○ Lifting ○ Transferring ○ Walking ○ Restraints ▪ Oxygenation - Review of Cardiovascular and respiratory Physiology - Factors Affecting Oxygenation - Alterations in oxygenation - Nursing interventions in oxygenation : assessment, types, equipment used, procedure and special considerations <ul style="list-style-type: none"> ○ Maintenance of patent airway ○ Oxygen administration ○ Suction ○ Inhalations: dry and moist ○ Chest physiotherapy and postural drainage ○ Pulse oximetry ○ CPR-Basic life support ▪ Fluid, Electrolyte, and Acid – Base Balances - Review of Physiological regulation of Fluid, Electrolyte, and Acid-Base Balances - Factors Affecting Fluid, Electrolyte, and Acid-Base Balances - Alterations in Fluid, Electrolyte, and Acid-Base Balances - Nursing interventions in Fluid, Electrolyte and Acid - Base Imbalances : assessment, types, equipment, procedure and special considerations <ul style="list-style-type: none"> ○ Measurement fluid intake and output ○ Correcting Fluid Electrolyte Imbalance: <ul style="list-style-type: none"> ➤ Replacement of fluids: Oral and Parenteral -Venipuncture, regulating IV flow rates, changing IV solutions and tubing, changing IV dressing,
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			<ul style="list-style-type: none"> ➤ Administering Blood transfusion ➤ Restriction of fluids ● Psychosocial Needs <ul style="list-style-type: none"> ○ Concepts of Cultural Diversity, Stress and Adaptation, Self-concept, Sexuality, Spiritual Health, coping with loss, death and grieving ○ Assessment of psychosocial needs ○ Nursing intervention for psychosocial needs <ul style="list-style-type: none"> - Assist with coping and adaptation - Creating therapeutic environment ○ Recreational and diversional therapies <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Practice sessions * Supervised Clinical Practice
XI	20	* Describe principles and techniques for infection control and biomedical waste management in Supervised Clinical settings	<p>Infection control in Clinical settings</p> <ul style="list-style-type: none"> * Infection control <ul style="list-style-type: none"> ▪ Nature of infection ▪ Chain of infection transmission ▪ Defenses against infection: <ul style="list-style-type: none"> Natural and acquired ▪ Hospital acquired infection (Nosocomial infection) * Concept of asepsis: medical asepsis, and surgical asepsis * Isolation precautions (Barrier nursing): <ul style="list-style-type: none"> ▪ Hand washing: simple, hand antisepsis and surgical antisepsis (scrub) ▪ Isolation: source and protective ▪ Personal protecting equipments: types, uses and technique of wearing and removing ▪ Decontamination of equipment and unit ▪ Transportation of infected patients ▪ Standard safety precautions (Universal precautions) ▪ Transmission based precautions * Biomedical waste management : <ul style="list-style-type: none"> ▪ Importance ▪ Types of hospital waste ▪ Hazards associated with hospital waste ▪ Decontamination of hospital waste ▪ Segregation and Transportation and disposal

			<p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Practice session * Supervised Clinical practice
XII	40	<ul style="list-style-type: none"> * Explain the principles, routes, effects of administration of medications * Calculate conversions of drugs and dosages within and between systems of measurements * Administer drugs by the following routes- oral, Intradermal, Subcutaneous, Intramuscular, Intra Venous topical, inhalation 	<p>Administration of Medications</p> <ul style="list-style-type: none"> * General Principles/Considerations <ul style="list-style-type: none"> ▪ Purposes of Medication ▪ Principles: 5 rights, Special Considerations, Prescriptions, Safety in Administering Medications and Medication Error ▪ Drugs forms ▪ Routes of administration ▪ Storage and maintenance of drugs and Nurses responsibility ▪ Broad classification of drugs ▪ Therapeutic Effect, Side Effects, Toxic Effects, Idiosyncratic Reactions, Allergic Reactions, Drug Tolerance, Drug Interactions, ▪ Factors influencing drug Actions, ▪ Systems of Drug Measurement: Metric System, Apothecary System, Household Measurements, Solutions. ▪ Converting Measurements units: Conversions within one system, Conversion between systems, Dosage Calculation, ▪ Terminologies and abbreviations used in prescriptions of medications * Oral Drugs Administration: Oral, Sublingual and Buccal : Equipment, procedure * Parenteral <ul style="list-style-type: none"> ▪ General principles: Decontamination and disposal of syringes and needles ▪ Types of parenteral therapies ▪ Types of syringes, needles, canula, and infusion sets ▪ Protection from Needlestick Injuries: Giving Medications with a safety syringes ▪ Routes of parenteral therapies <ul style="list-style-type: none"> - Intradermal: purpose, site, equipment, procedure, special considerations. - Subcutaneous: purpose, site, equipment, procedure, special considerations

			<ul style="list-style-type: none"> - Intramuscular: purpose, site, equipment, procedure, special considerations - Intra Venous: purpose, site, equipment, procedure, special considerations - Advanced techniques: epidural, intrathecal, intraosseous, intraperitoneal, intraplural, intra arterial - Role of nurse * Topical Administration : purposes, site, equipment, procedure, special considerations for <ul style="list-style-type: none"> ▪ Application to Skin ▪ Application to mucous membrane - Direct application of liquids-Gargle and swabbing the throat - Insertion of Drug into body cavity: Suppository/ medicated packing in rectum/vagina - Institutions: Ear, Eye, Nasal, Bladder, and Rectal - Irrigations: Eye, Ear, Bladder, Vaginal and Rectal - Spraying: Nose and throat * Inhalation: Nasal, oral, endotracheal/tracheal (steam, oxygen and medications) - purposes, types, equipment, procedure, special considerations <ul style="list-style-type: none"> ▪ Recording and reporting of medications administered <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Practice session * Supervised Clinical practice
XIII	10	<ul style="list-style-type: none"> * Describe the pre and post operative care of patients * Explain the process of wound healing * Explain the principles and techniques of wound care * Perform care of wounds 	<p>Meeting needs of Perioperative patients</p> <ul style="list-style-type: none"> * Definition and concept of Perioperative Nursing * Preoperative Phase <ul style="list-style-type: none"> ▪ Preparation of patient for surgery * Intraoperative <ul style="list-style-type: none"> ▪ Operation theatre Set up and environment ▪ Role of nurse * Postoperative Phase <ul style="list-style-type: none"> ▪ Recovery unit ▪ Post operative unit ▪ Post operative care, * Wounds: types, Classifications, wound Healing

			<p>Process, Factors affecting Wound, Complications of Wound Healing</p> <ul style="list-style-type: none"> * Surgical asepsis * Care of the wound: types, equipments, procedure and special consideration <ul style="list-style-type: none"> ▪ Dressings, Suture Care, ▪ Care of Drainage ▪ Application of Bandages, Binders, Splints & Slings ▪ Heat and Cold Therapy <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Practice session * Supervised Clinical practice
XIV	15	* Explain care of patients having alterations in body functioning	<p>Meeting special needs of the patient</p> <ul style="list-style-type: none"> * Care of patients having alteration in <ul style="list-style-type: none"> ○ Temperature (hyper and hypothermia); Types, Assessment, Management ○ Sensorium (Unconsciousness); Assessment, Management ○ Urinary Elimination (retention and incontinence); Assessment, Management ○ Functioning of sensory organs: (Visual & hearing impairment) ○ Assessment of Self-Care ability ○ Communication methods and special considerations ○ Mobility (physically challenged, cast) assessment of Self-Care ability: Communication Methods and special considerations ○ Mental state (mentally challenged), assessment of Self-Care ability; ○ Communication Methods and special considerations ○ Respiration (distress); Types, Assessment, Management ○ Comfort – (Pain) – Nature, Types, Factors influencing Pain, Coping, Assessment, Management; ○ Treatment related to gastrointestinal system

			<p>: naso-gastric suction, gastric irrigation, gastric analysis.</p> <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Case Discussions * Supervised Clinical practice
XV	5	* Explain care of terminally ill patient	<p>Care of Terminally ill patient</p> <ul style="list-style-type: none"> ○ Concepts of Loss, Grief, grieving Process ○ Signs of clinical death ○ Care of dying patient: special considerations ● Advance directives: Euthanasia, will, dying declaration, organ donation etc. ○ Medico-legal issues ○ Care of dead body: equipment, procedure and care of unit ○ Autopsy ○ Embalming <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion * Demonstration * Case discussion/Role play * Practice session * Supervised Clinical practice

Unit	Time (Hrs)	Learning Objectives	Content and Teaching Learning Activities
XVI	6	* Explain the basic concepts of conceptual and theoretical models of nursing	<p>Professional Nursing concepts and practices</p> <ul style="list-style-type: none"> * Conceptual and theoretical models of nursing practice: Introduction of models-holistic model, health belief model, health promotion model etc. * Introduction to Theories in Nursing; Peplau's, Henderson's, Orem's, Neuman's, Roger's and Roy's * Linking theories with nursing process <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture discussion

Nursing Foundations – Practical

Placement: First Year

Time: Practical – 650 hours
(200 lab and 450 clinicals)

Course Description: This Course is designed to help the students to develop an understanding of the philosophy, objectives, theories, and process of nursing in various clinical settings. It is aimed at helping the students to acquire knowledge, understanding and skills in techniques of nursing and practice them in clinical settings.

Areas	Time (Hrs)	Objectives	Skills	Assignments	Assessment Methods
Demonstration Lab General Medical and Surgery ward	200 450 Minimum practice time in clinical area: 100	<ul style="list-style-type: none"> * Performs admission and discharge procedure * Prepares nursing care plans as per the nursing process format * Communicate effectively with patient, 	<p>Hospital admission and discharge (III)</p> <ul style="list-style-type: none"> * Admission * Prepare Unit for new patient * Prepare admission bed * Performs admission procedure <ul style="list-style-type: none"> o New patient o Transfer in * Prepare patient records <p>Discharge / Transfer out</p> <ul style="list-style-type: none"> * Gives discharge counseling * Perform discharge procedure (Planned discharge, LAMA and abscond, Referrals and transfers) * Prepare records of discharge/transfer * Dismantle, and disinfect unit and equipment after discharge / transfer. <p>Perform assessment:</p> <ul style="list-style-type: none"> * History taking, Nursing diagnosis, problem list, Prioritization, Goals & Expected Outcomes, selection of interventions * Write Nursing Care Plan * Gives care as per the plan <p>Communication</p> <ul style="list-style-type: none"> * Use verbal and non verbal communication techniques 	<ul style="list-style-type: none"> * Practice in Unit/hospital * Write nursing process records of patient * Simulated-1 * Actual - 1 * Role-plays in simulated situations on 	<ul style="list-style-type: none"> * Evaluate with checklist * Assessment of clinical performance with rating scale * Competition of practical record * Assessment of nursing process records with checklist * Assessment of actual care given with rating scale * Assess role plays with the check list on

		<p>families and tea members and</p> <ul style="list-style-type: none"> * Maintain effective human relations * Develops plan for patient teaching <ul style="list-style-type: none"> * Prepare patient reports * Presents reports <ul style="list-style-type: none"> * Monitor vital signs <ul style="list-style-type: none"> * Perform health assessment of each body system 	<p>Prepare a plan for patient teaching session</p> <p>Write patient report</p> <ul style="list-style-type: none"> * Change-of shift reports, Transfer reports, Incident reports etc. * Presents patient report <p>Vital Signs</p> <ul style="list-style-type: none"> * Measure, Records and interpret alterations in body temperature, pulse respiration and blood pressure <p>Health assessment</p> <ul style="list-style-type: none"> * Health history taking * Perform assessment: <ul style="list-style-type: none"> o General o Body system * Use various methods of physical examination * Inspection, Palpation, Percussion, Auscultation, Olfaction 	<p>communication techniques-1</p> <ul style="list-style-type: none"> * Health talk-1 <ul style="list-style-type: none"> * Write nurses notes and present the patient report of 2-3 assigned patient * Lab practice * Measure Vital signs of assigned patient 	<p>communication techniques</p> <ul style="list-style-type: none"> * Assess health talk with the checklist * Assessment of communication techniques by rating scale * Assessment of performance with rating scale * Assessment of each skill with checklist * Completion of activity record * Assessment of each skill with rating scale * Completion of activity record
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		<p>* Provide basic nursing care to patients</p>	<p>* Identification of system wise deviations</p> <p>Prepare Patient's unit:</p> <p>* Prepare beds:</p> <ul style="list-style-type: none"> ○ Open, closed, occupied, operation, amputation, ○ Cardiac, fracture, burn, Divided, & Fowlers bed <p>* Pain assessment and provision for comfort</p> <p>Use comfort devices Hygienic care</p> <p>* Oral hygiene:</p> <p>* Baths and care of pressure points</p> <p>* Hair wash, Pediculosis treatment</p> <p>Feeding:</p> <p>* Oral, Enteral, Naso/Orogastric, gastrostomy and Parenteral feeding</p> <p>* Naso-gastric insertion, suction, and irrigation</p> <p>Assisting patient in urinary elimination</p> <p>* Provides urinal/bed pan</p> <p>* Condom drainage</p> <p>* Perineal care</p> <p>* Catheterization</p> <p>* Care of urinary drainage</p> <p>Bladder irrigation</p> <p>Assisting bowel Elimination:</p> <p>* Insertion of Flatus tube</p> <p>* Enemas</p> <p>* Insertion of Suppository</p> <p>Bowel wash Body Alignment and Mobility:</p> <ul style="list-style-type: none"> ○ Range of motion exercises ○ Positioning: Recumbent, Lateral (rt/lt), Flowers, Sims, Lithotomy, Prone, Trendelenburg position ○ Assist patient in Moving lifting, transferring, walking, 	<p>* Practice in lab & hospital</p> <p>* Simulated exercise on CPR manikin</p> <p>* Observation study - 2</p> <p>* Department of Infection control & CSSD</p> <p>* Visits CSSD write observation report 1</p> <p>* Collection of samples for culture</p> <p>* Do clinical postings in infection control department and write report</p> <p>* Practice in lab/ward</p>	<p>* Assess observation study in checklist</p>
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			<ul style="list-style-type: none"> ○ Restraints <p>Oxygen administration</p> <p>Suctioning: Oropharyngeal, nasopharyngeal</p> <p>Chest physiotherapy and postural drainage</p> <p>Care of Chest drainage</p> <p>CPR-Basic life support</p> <p>Intravenous therapy</p> <p>Blood and blood component therapy</p> <p>Collect/assist for collection of specimens for investigations Urine, sputum, faeces, vomitus, blood and other body fluids</p> <p>Perform lab tests: * Urine: sugar, albumin, acetone * Blood: sugar(with strip/ gluco-meter)</p> <p>Hot and cold applications: Local and general Sitz bath</p> <p>Communicating and assisting with self-care of visually & hearing impaired patients</p> <p>Communicating and assisting with self-care of mentally challenged/disturbed patients Recreational and diversional therapies.</p> <p>Caring of patient with alteration in sensorium</p> <p>Infection control * Perform following procedures :</p>		
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		<p>* Perform infection control procedures</p> <p>* Provide care to pre and post operative patients</p> <p>* Perform procedures for care of wounds</p> <p>* Administer drugs</p>	<ul style="list-style-type: none"> ○ Hand washing techniques ○ (Simple, hand antiseptics and surgical antiseptics (scrub)) ○ Prepare isolation unit in lab/ward ○ Practice technique of wearing and removing Personal protective equipment (PPE) ○ Practice Standard safety precautions (Universal precautions) <p>Decontamination of equipment and unit:-</p> <p>* Surgical asepsis:</p> <ul style="list-style-type: none"> ○ Sterilization ○ Handling sterilized equipment ○ Calculate strengths of lotions, ○ Prepare lotions ● Care of articles <p>Pre and post operative care:</p> <p>* Skin preparations for surgery : Local</p> <p>* Preparation of Post operative unit</p> <p>* Pre & Post operative teaching and counseling</p> <p>* Pre & Post operative monitoring</p> <p>* Care of the wound</p> <p>* Dressings, Suture Care, care of Drainage, Application of Bandages, Binders, splints & Slings</p> <p>* Bandaging of various body parts</p> <p>Administration of medications</p> <p>* Administer medications in different forms and routes</p> <p>* Oral, Sublingual and Buccal</p> <p>* Parenteral : Intradermal, subcutaneous, Intramuscular etc.</p> <p>* Assist with Intra venous medications</p> <p>* Drug measurements and dose calculations</p> <p>* Preparation of lotions and solutions</p> <p>* Administers topical applications</p> <p>* Insertion of drug into body cavity: Suppository & medicated packing etc.</p>		<p>* Evaluate all procedures with checklist</p>
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		<ul style="list-style-type: none"> * Provide care to dying and dead * Counsel and support relatives. 	<ul style="list-style-type: none"> * Instillation of medicines and spray into Ear, Eye, Nose and throat * Irrigations: Eye, Ear, Bladder, Vagina and Rectum * Inhalations: dry and moist <p>Care of dying patient</p> <ul style="list-style-type: none"> * Caring and packing of dead body * Counseling and supporting grieving relatives * Terminal care of the unit 		
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Scheme of University Examination for Nursing Foundations

Theory

There shall be one theory paper of three hours duration carrying 100 marks. Distribution of type of questions and marks for Nursing Foundations shall be as given under.

Type of Questions	No. of Questions	Marks	Sub-total
Long Essay (LE)	2	10	20
Short Essay (SE)	10	5	50
Short Answer (SA)	10	3	30
Total Marks			100

Practical and Viva-voce

There shall be practical and viva-voce examination carrying 100 marks. The practical examinations must be held in the respective clinical areas. One internal and one external examiner should jointly conduct practical /clinical examination for each student. Assessment methods are given in column 6 under course description.

Psychology

Placement: First Year

Time: Theory 60 Hours

Course Description: This course is designed to assist the students to acquire knowledge of fundamentals of Psychology and develop an insight into behaviour of self and others. Further it is aimed at helping them to practice the principles of mental hygiene for promoting mental health in Nursing practice.

Unit	Time (Hrs)	Learning Objectives	Content and
I	2	* Describe the history, scope and methods of Psychology	<p>Introduction:</p> <ul style="list-style-type: none"> * History and origin of Science of Psychology * Definitions and scope of Psychology * Relevance to Nursing * Methods of Psychology <p><i>Teaching Learning Activity</i></p> <ul style="list-style-type: none"> * Lecture Discussion
II	4	* Explain the Biology of Human behaviour	<p>Biology of Behaviour</p> <ul style="list-style-type: none"> * Body mind relationship – modulation process in health and illness. * Genetics and behaviour : Heredity and Environment * Brain and behaviour: Nervous system, Neurons and synapse * Association cortex, Rt and Lt Hemispheres * Psychology of sensations * Muscular and glandular controls of behaviour * Nature of behaviour of an organism/integrated responses <p><i>Teaching Learning Activity</i></p> <ul style="list-style-type: none"> * Lecture Discussion
III	20	* Describe various cognitive processes and their applications	<p>Cognitive processes</p> <ul style="list-style-type: none"> * Attention: Types, determinants, duration and degree, alterations * Perception: Meaning, Principles, factors affecting, errors * Learning: Nature, Types, learner and learning, Factors influencing, laws and theories, process, transfer, study habits. * Memory: Meaning, types, nature factors influencing, development theories and methods of

			<p>memorizing and forgetting</p> <ul style="list-style-type: none"> * Thinking: Types and levels, stages of development, relationship with language and communication * Intelligence: Meaning, classification, uses, theories * Aptitude: Concepts, types, individual differences and variability. * Psychometric assessments of cognitive processes * Alterations in cognitive processes * Applications <p>Teaching Learning Activity</p> <ul style="list-style-type: none"> * Lecture Discussion
IV	8	<ul style="list-style-type: none"> * Describe motivation, emotions, stress, attitudes and their influence on behaviour 	<p>Motivation and Emotional processes:</p> <ul style="list-style-type: none"> * Motivation: Meaning, concepts, types, theories, motives and behaviour, conflicts and frustration, conflict resolution * Emotions and stress <ul style="list-style-type: none"> o Emotions: Definition, components, changes in emotions, theories, emotional adjustments, emotions in health and illness. o Stress: stressors, cycle, effect, adaptation and coping * Attitude: Meaning, nature, development, factors affecting, <ul style="list-style-type: none"> o Behaviour and attitudes o Attitudinal change * Psychometric assessments of emotions and attitudes * Alterations in emotions * Applications <p>Teaching Learning Activity</p> <ul style="list-style-type: none"> * Lecture Discussion
V	7	<ul style="list-style-type: none"> * Explain the concepts of personality and its influence on behaviour 	<p>Personality</p> <ul style="list-style-type: none"> * Definitions, topography, types, Theories * Psychometric assessments of personality * Alterations in personality * Applications <p>Teaching Learning Activity</p> <ul style="list-style-type: none"> * Lecture Discussion
VI	7	<ul style="list-style-type: none"> * Describe Psychology of people during the life cycle 	<p>Developmental Psychology</p> <ul style="list-style-type: none"> * Psychology of people at different ages from infancy to old age * Psychology of vulnerable individuals-challenged, women, sick, etc. * Psychology of groups

			<p>Teaching Learning Activity</p> <ul style="list-style-type: none"> * Lecture Discussion
VII	8	<ul style="list-style-type: none"> * Describe the characteristics of * Mentally health person * Explain ego defence mechanisms 	<p>Mental hygiene and mental Health</p> <ul style="list-style-type: none"> * Concepts of mental hygiene and mental health * Characteristics of mentally healthy person * Warning signs of poor mental health * Promotive and Preventive mental health-strategies and services * Ego Defence mechanisms and implications * Personal and social adjustments * Guidance and counseling * Role of nurse <p>Teaching Learning Activity</p> <ul style="list-style-type: none"> * Lecture Discussion * Case Discussion * Role Play * Demonstration
VIII	4	<ul style="list-style-type: none"> * Explain the Psychological assessments and role of nurse 	<p>Psychological assessment & tests</p> <ul style="list-style-type: none"> * Types, development, Characteristics, Principles, Uses, Interpretations and Role of nurse in psychological assessment <p>Teaching Learning Activity</p> <ul style="list-style-type: none"> * Lecture Discussion * Demonstration * Practice sessions

Microbiology

Placement: First Year

Time: Theory-60 Hours (Theory 45+15 lab)

Course Description: This course is designed to enable students to acquire understanding of fundamentals of Microbiology and identification of various microorganisms. It also provides opportunities for practicing infection control measures in hospital and community settings.

Unit	Time (Hrs)		Learning Objectives	Content and Teaching Learning Activity
	Th	Pr		
I	5		* Explain concepts and principles of microbiology and their importance in nursing	Introduction: * Importance and relevance to nursing * Historical perspective * Concepts and terminology * Principles of microbiology Teaching Learning Activity * Lecture Discussion
II	10	5	* Describe structure, classification morphology and growth of bacteria * Identify Micro-organisms	General characteristics of Microbes * Structure and classification of Microbes * Morphological types * Size and form of bacteria * Motility * Colonization * Growth and nutrition of microbes <ul style="list-style-type: none"> ○ Temperature ○ Moisture ○ Blood and body fluids * Laboratory methods for Identification of Micro-organisms * Staining techniques, Gram staining, Acid fast staining, Hanging drop preparation * Culture; various medias Teaching Learning Activity * Lecture Discussion * Demonstration
III	10	2	* Describe the methods of infection control * Identify the role of	Infection Control * Infection: Sources, portals of entry and exit, transmission * Asepsis * Disinfection: Types and methods * Sterilization: Types and methods * Chemotherapy and antibiotics

			nurse in hospital infection control programme	<ul style="list-style-type: none"> * Standard safety measures * Biomedical waste management * Role of Nurse * Hospital acquired infection * Hospital infection control programme <ul style="list-style-type: none"> ○ Protocols, collection of samples, preparation of report and status of rate of infection in the unit/ hospital, nurse's accountability, continuing education etc. <p>Teaching Learning Activity</p> <ul style="list-style-type: none"> * Lecture Discussion * Demonstration * Visits to CSSD * Clinical practice
IV	12	4	* Describe the different disease producing organisms	<p>Pathogenic organisms</p> <ul style="list-style-type: none"> * Micro-organisms <ul style="list-style-type: none"> ○ Cocci – gram positive and gram negative ○ bacilli – gram positive and gram negative ○ Spirochaete ○ Mycoplasma ○ Rickettsiae ○ Chlamydiae * Viruses * Fungi-Superficial and Deep mycoses * Parasites * Rodents & vectors Characteristics, Source, portal of entry, transmission of infection Identification of disease producing micro-organisms collection, handling and transportation of various specimens <p>Teaching Learning Activity</p> <ul style="list-style-type: none"> * Lecture Discussion * Demonstration * Clinical practice
V	8	4	Explain the concept of immunity, hyper sensitivity and immunization	<p>Immunity</p> <ul style="list-style-type: none"> * Immunity – Types, classification, * Antigen & antibody reaction * Hypersensitivity – skin test, * Serological tests * Immunoprophylaxis <ul style="list-style-type: none"> ○ Vaccines & sera – Types & classification, storage and handling, cold chain ○ Immunization for various diseases ○ Immunization schedule <p>Teaching Learning Activity</p> <ul style="list-style-type: none"> * Lecture Discussion * Demonstration * Clinical practice

Introduction to Computers

Placement: First Year

Time: Theory – 45 Hours

Course Description: This course is designed for students to develop basic understanding of uses of computer and its application in Nursing.

Unit	Time (Hrs)		Learning Objectives	Content and Teaching Learning Activities	Assessment Methods For Internal Assessment
	Th	Pr			
1	3		<ul style="list-style-type: none"> * Identify & define various concepts used in computer * Identify application of computer in nursing 	<p>Introduction:</p> <ul style="list-style-type: none"> * Concepts of Computers * Hardware and software; trends and technology * Application of computers in nursing. <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture Discussion * Demonstration 	<ul style="list-style-type: none"> * Short answers * Objective type
II	6	20	<ul style="list-style-type: none"> * Describe and Use the Disk Operating System * Demonstrate skill in the use of MS Office 	<ul style="list-style-type: none"> * Introduction to disk – operating system <ul style="list-style-type: none"> o DOS o Windows (all version) * Introduction <ul style="list-style-type: none"> o MS-Word o MS-Excel with pictorial presentation o MS-Access o MS-Power point <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture Discussion * Demonstration *Practice session 	<ul style="list-style-type: none"> * Short answers * Objective type * Practical Exam
III	2	3	<ul style="list-style-type: none"> * Demonstrate skill in using multi-media * Identify features of computer aided teaching and testing 	<ul style="list-style-type: none"> * Multimedia; types & uses * Computer aided teaching & testing <p>Teaching Learning Activities</p> <ul style="list-style-type: none"> * Lecture Discussion * Demonstration 	<ul style="list-style-type: none"> * Short answers * Objective type * Practical Exam and Viva Voce

IV	1	3	* Demonstrate use of internet and Email	* Use of Internet and: e-mail Teaching Learning Activities * Lecture Discussion * Demonstration * Practice session	* Short answers * Objective type * Practical Exam and Viva Voce
V	2	2	* Describe and use the statistical packages	* Statistical packages: types and their features Teaching Learning Activities * Lecture Discussion * Demonstration * Practice session	* Short answers * Objective type * Practical Exam and Viva Voce
VI	1	2	* Describe the use of Hospital Management System	* Hospital Management System: Types and uses Teaching Learning Activities * Lecture Discussion * Demonstration	* Short answers * Objective type * Practical Exam and Viva Voce

Scheme of Examination

- **Theory**
Nursing Foundations, Psychology, Microbiology, English and Introduction to Computer

There shall be one paper of three hours duration carrying 100 marks for each of the subjects mentioned above.

Table 6(E): Distribution of Type of Questions and Marks for Nursing Foundations, Psychology, Microbiology, English and Introduction to Computer* (100 marks for each subject)

Type of Questions	No. of Questions	Marks	Sub-total
Long Essay (LE)	2	10	20
Short Essay (SE)	10	5	50
Short Answer (SA)	10	3	30
Total Marks			100

**Examination for Introduction to Computer to be conducted as college examination and marks to be sent to the University for inclusion in the marks sheet*

- **Practical and Viva-voce Examination.**

Practical and Viva-voce examination shall be held for Nursing Foundations subject only. Marks for university examination shall be 100 marks. Assessment methods shall be as given in the text of Nursing Foundations Practical.