SYLLABUS M.SCNURSING

Medical Surgical Nursing

(Revised Regulations-2019)

M.Sc. Nursing Ist Year						
Course Code	**Course Category**	**Course Title**	**L**	**T**	**P**	**C**
THEORY						
19NE01	CC	Nursing education	3	0	3	7.5
19ANP02	CC	Advanced Nursing Practice	3	0	3	7.5
19NRS03	CC	Nursing Research & statistics	3	0	3	7.5
19OBGN04	SP	Clinical Speciality I (Medical Surgical Nursing-I)	3	0	3	7.5
PRACTICAL						
19NE01	CC	Nursing education	0	0	3	7.5
19ANP02	CC	Advance nursing practice	0	0	3	10
19NRS03	CC	Nursing Research and Statistics	0	0	3	5
19OBGN04	SP	*Clinical specialty–I (MedicalSurgicalNursing)	0	0	3	32.5

M.Sc. Nursing IInd Year						
Course Title			**L**	**T**	**P**	**C**
THEORY						
19NM05	CC	Nursing Management	3	0	3	7.5
19OBGN06	SC	Clinical Specility II (Medical SurgicalNursing)	3	0	3	7.5
PRACTICAL						
19NM05	CC	Nursing Management	0	0	3	7.5
19NRS03	CC	Nursing Research- Dissertation	0	0	3	15
19OBGN06	SC	*Clinicalspecialty–II (MedicalSurgicalNursing)	0	0	3	47.5

ELECTIVECOURSES

(StandardNational/InternationalModules can be used)

Course Code	Elective courses	L	T	P	C
I Year					
19ECCPR01	CPR	3	0	2	2
19ECFA02	First aid nursing	3	0	2	2
19ECOTT03	Operation theatre technique	3	0	0	2
19ECABGA04	ABG analysis	3	0	1	2
19ECCVPM05	Central venous pressure monitoring	3	0	1	2
I I Year					
19ECIECHOR06	Interpretation of ECHO reading	3	0	1	2
19ECACM07	Assessment of cardiac monitoring	3	0	1	2
19ECID08	Immunodiagnostics	3	0	1	2
19ECQA09	Quality assurance	3	0	2	2
19ECOT10	Organ transplantation	3	0	2	2
	(4 Courses Mandatory) – 2 Credits = 40 Hours				

(19NE01) NURSING EDUCATION

PLACEMENT-IYEAR **Hours of instruction**

Theory:150hours Credit:7.5

Practical :150 hours Credit: 7.5

This course is designed to assist students to develop a broad understanding of Fundamental Principles, concepts, trends and issues related to education and nursing education. Further, it would provide opportunity to students to understand, appreciate and acquire skills in teaching and evaluation, curriculum development, implementation, maintenance of standards and accreditation of various nursing educationalprograms.

Objectives

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

1. Explain the aims of education, philosophies, trends in education and health: its impact on nursingeducation.
2. Describe the teaching learningprocess.
3. Prepare and utilize various instructional media and methods inteaching learningprocess.
4. Demonstrate competency in teaching, using various instructional strategies.
5. Critically analyze the existing nursing educational programs, their problems, issues and futuretrends.
6. Describe the process of curriculum development, and the need and methodology of curriculum change, innovation and integration.
7. Plan and conduct continuing nursing education programs.
8. Critically analyze the existing teacher preparation programs innursing.
9. Demonstrate skill in guidance andcounseling.
10. Describe the problems and issues related to administration of nursing curriculum including selection and organization of clinicalexperience.
11. Explain the development of standards and accreditation process in nursing educationprograms.
12. Identify research priorities in nursingeducation.
13. Discuss various models of collaboration in nursing education and services.
14. Explain the concept,principles,steps, tools and techniques of evaluation
15. Construct, administer and evaluate various tools for assessment of, knowledge, skill, andattitude.

Course Content

Units	Hours		Course Content
	Theory	Practical	
I	10		**Introduction:** ❑ Education: D e f i n i t i o n , aims,concepts, philosophies& their educationimplications, ❑ Impact of Social, economic, political &technological changes oneducation: • Professionaleducation • Current trends and issues ineducation • Educational reforms and National Educationalpolicy, various educational commissions-reports • Trends in development of nursing educationinIndia
II	20	30	**Teaching – Learning Process** ❑ Concepts of teaching and learning: Definition, theories of teaching and learning, relationship between teaching andlearning. ❑ Educational aims and objectives; types, domains, levels, elements and writing of educationalobjectives ❑ Competency based education (CBE) and outcome-based education(OBE) ❑ Instructional design: Planning and designingthe lesson, writing lesson plan: meaning, its need and importance,formats. ❑ Instruction strategies – Lecture, discussion, demonstration, simulation, laboratory, seminar, panel, symposium, problem solving, problem-based learning (PBL), workshop, project, role-play (socio- drama), clinical teaching methods, programmed instruction, self-directed learning (SDL), micro teaching, computer assisted instruction (CAI), computer assistedlearning (CAL)
III	10	10	**Instructional media and methods** ❑ Key concepts in the selection and use of media ineducation ❑ Developing learning resource material using differentmedia ❑ Instructional aids – types, uses, selection, preparation,utilization. ❑ Teacher's role in procuring and managing instructional Aids – Projectand non-projected aids, multimedia, video-tele conferencing etc

IV	**10**		**Measurement and evaluation:** ❑ Concept and nature of measurement and evaluation, meaning, process, purposes, problems in evaluation andmeasurement. ❑ Principles of assessment, formative and summative assessment- internal assessment external examination, advantages and disadvantages. ❑ Criterion and norm referencedevaluation,
V	**12**	**10**	**Standardized and non-standardized tests:** ❑ Meaning, characteristics, objectivity, validity, reliability, usability, norms, construction of tests- • Essay, short answer questions and multiple-choicequestions. • Rating scales, checklist, OSCE/OSPE (Objective structured clinical/practical examination) • Differential scales, and summated scales, sociometry, anecdotal record, attitude scale, critical incidenttechnique ❑ Question bank-preparation, validation, moderationby panel,utilization ❑ Developingasystemformaintaining confidentiality
VI	**8**	**5**	**Administration, Scoring and Reporting** ❑ Administering a test; scoring, grading versus marks ❑ Objective tests, scoring essay test, methods ofscoring, Itemanalysis.
VII	**12**	**6**	**Standardized Tools** ❑ Tests of intelligence aptitude, interest, personality, achievement, socio-economic status scale, tests for special mentaland physical abilities and disabilities.
VIII	**5**	**6**	**Nursing Educational programs** ❑ Perspectives of nursing education: Global and national. ❑ Patterns of nursing education and training programmes in India. Non-university and University programs: ANM, GNM, Basic B.Sc. Nursing,PostCertificateB.Sc.Nursing,M.Sc(N) programs,M.PhilandPh.D)inNursing,post basic diploma programs, nurse practitioner

			programs.
IX	**12**	**25**	**Continuing Education in Nursing** ❑ Concepts – Definition, importance, need scope,principles of adult learning, assessments of learning needs, priorities,resources. ❑ Program planning, implementation and evaluation ofcontinuing educationprograms. ❑ Research in continuingeducation. ❑ Distance education innursing.
X	**10**	**10**	**Curriculum Development** ❑ Definition, curriculum determinants, process and steps of curriculum development, Curriculum models, Types andframework. ❑ Formulationofphilosophy,objectives,selection and organization of learning experiences; master plan,course plan, unitplan. ❑ Evaluation strategies, process of curriculum change, role of students, faculty, administrators, statutory bodies and other stakeholders. ❑ Equivalency of courses: Transcripts,credit system.
XI	**8**	**4**	**Teacher preparation** ❑ Teacher – roles & responsibilities, functions, characteristics, competencies, qualities, ❑ Preparation of professionalteacher ❑ Organizing professional aspects of teacherpreparationprograms ❑ Evaluation: self andpeer ❑ Critical analysis of various programs of teachereducation inIndia.
XII	**10**	**5**	**Guidance and counseling** ❑ Concept, principles, need, difference betweenguidance and counseling, trends and issues. ❑ Guidance and counseling services: diagnosticandremedial. ❑ Coordination and organization ofservices. ❑ Techniques of counseling: Interview, casework, characteristics of counselor, problems in counseling. ❑ Professionalpreparationandtrainingfor counseling.

XIII	**15**	**10**	**Administration of Nursing Curriculum** ❑ Role of curriculum coordinator – planning,implementation andevaluation. ❑ Evaluation of educational programs in nursing-course andprogram. ❑ Factors influencing faculty staff relationship andtechniques of workingtogether. ❑ Concept of faculty supervisor (dual)position. ❑ Curriculum research innursing. ❑ Different models of collaboration between educationandservice
XIV	**10**		**Management of nursing educational institutions** ❑ Planning, organizing, staffing, budgeting, recruitment, discipline, public relation, performance appraisal, welfare services,library services,hostel,
XV	**5**	**5**	❑ Development and maintenance of standards and accreditation in nursing education programs. ❑ Role of Indian Nursing Council, State Registration Nursing Councils, Boards and University. ❑ Role of Professional associations andunions.

CourseOutcomes(Cos)

CO1	Remember is remembering, recognizing and recalling important concepts. Itincludes factual information with right and wrong answers.
CO2	Understand is the thought processes of interpreting, exemplifying, classifying,summarizing, inferring, comparing, and explaining of interpreting, translating from one medium to another and describing in one's own words.
CO3	Apply the various aspects of curriculum development,
CO4	Analyze the standardized tools
CO5	Develop curriculum for various nursing programmes
CO6	Create thenew teaching learning strategies

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1	2	1		2			2	2			2	1	2
CO2						1					1	1	2		2
CO3				1			2			1					2
CO4	2		3			1			1		1		1	2	2
CO5	1		1		3		1	2		2		2			
CO6		2	2	2	2		3	2		2		2	2	2	2

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

Activities:

- Framing philosophy, aims andobjectives.
- LessonPlanning.
- Microteaching-2.
- Conduct practice teachings using different teaching strategies -10 (like lecture cum discussion, demonstration- lab method, field trips,seminars, project, role play, panel discussion, clinical methodsetc)
- Preparation and utilization of instructional Aids using differentmedia.
- Develop course plans, unit plans, rotationplans.
- a continuing educationworkshops.
- Annotatedbibliography.
- Critical evaluation of any nursing education program offered by a selectedinstitution.
- Planning and Organizing fieldvisits
- Educationalvisits.
- Field visits (INC/SNRC) to get familiar with recognition/registration process.
- Construct, administer and evaluate tools (objective & essay type test, observation checklist, rating scaleetc.)

- Observe and practice application of various non-standardized tests (intelligence, Aptitude, Personality, Sociometry, physical & mental disabilitiestests.)

Methods of Teaching

- Lecture cumdiscussion
- Demonstration/ Returndemonstration
- Seminar /Presentations
- Projectwork
- Fieldvisits
- Workshop

Methods of evaluation

- Tests
- Presentation
- Projectwork
- Writtenassignments

Internal Assessment

Techniques	**Weightage**
Test- (2 tests)	50
Assignment	25
Seminar/presentation	25
	100

Practical – Internal assessment

Learning resource material	25
Practice Teaching	50
Conduct Workshop /Short Term Course	25

Practical – external assessment

Practice teaching- 1-	50
Preparation/use of learning resource material-1	25
Construction of tests/rotation plan.	25

(19ANP02) ADVANCE NURSING PRACTICE

PLACEMENT-IYEAR **Hours of instruction**

Theory:150hours **Credit:7.5**

Practical:200hours **Credit:10**

Course Description

The course is designed to develop an understanding of concepts and constructs of theoretical basis of advance nursing practice and critically analyze different theories of nursing and other disciplines.

Objectives:

At the end of the course the students will be able to:

1. Appreciate and analyze the development of nursing as aprofession.
2. Describe ethical, legal, political and economic aspects of health care delivery and nursingpractice.
3. Explain bio- psycho- social dynamics of health, life style and health care deliverysystem.
4. Discuss concepts, principles, theories, models, approaches relevant to nursing and theirapplication.
5. Describe scope of nursingpractice.
6. Provide holistic and competent nursing care following nursing process approach.
7. Identify latest trends in nursing and the basis of advance nursing practice.
8. Perform extended and expanded role ofnurse.
9. Describe alternative modalities of nursingcare.
10. Describe the concept of quality control innursing.
11. Identify the scope of nursingresearch.
12. Use computer in patient care delivery system and nursingpractice.
13. Appreciateimportanceofself-developmentandprofessional advancement.

Unit	Hours	Content
I	10	**Nursing as a Profession** ❑ Historyofdevelopmentofnursingprofession,characteristics, criteria of the profession, perspective of nursing profession-national,global ❑ Code of ethics (INC), code of professional conduct (INC), autonomy and accountability, assertiveness, visibility of nurses, legalconsiderations, ❑ Role of regulatorybodies ❑ Professional organizations and unions-self-defense, individual and collectivebargaining ❑ Educational preparations, continuing education, career opportunities, professional advancement & role and scope of nursingeducation. ❑ Role of research, leadership andmanagement. ❑ Quality assurance in nursing(INC). ❑ Futuristicnursing.
II	5	**Health care delivery** ❑ Health care environment, economics, constraints, planning process, policies, political process vis a vis nursingprofession. ❑ Health care delivery system- national, state, district andlocal level. ❑ Major stakeholders in the health care system-Government, non-govt, Industry and otherprofessionals. ❑ Patterns of nursing care delivery inIndia. ❑ Health care delivery concerns, national health and family welfare programs, inter-sectoral coordination, role of non-governmentalagencies. ❑ Information, education and communication(IEC). ❑ Tele-medicine.
III	10	**Genetics** ❑ Review of cellular division, mutation and law of inheritance, human genome project, The Genomicera. ❑ Basic concepts of Genes, Chromosomes &DNA. ❑ Approaches to common geneticdisorders. ❑ Genetic testing – basis of genetic diagnosis, Pre symptomatic and predisposition testing, Prenatal diagnosis & screening, Ethical,legal&psychosocialissuesingenetictesting. ❑ Geneticcounseling. ❑ Practical application of genetics innursing.

IV	**10**	**Epidemiology** ❑ Scope, epidemiological approach andmethods, ❑ Morbidity,mortality, ❑ Conceptsofcausationofdiseasesandtheirscreening, ❑ Application of epidemiology in health care delivery, Health surveillance and healthinformatics ❑ Role ofnurse
V	**20**	**Bio-Psycho social pathology** ❑ Pathophysiology and Psychodynamics of diseasecausation ❑ Life processes, homeostatic mechanism, biological and psycho-socialdynamicsincausationofdisease,lifestyle ❑ Common problems: Oxygen insufficiency, fluid and electrolyte imbalance, nutritional problems,hemorrhage]and shock, altered body temperature, unconsciousness, sleep pattern and its disturbances, pain, sensory deprivation. ❑ Treatment aspects: pharmacological and pre- post-operative careaspects, ❑ Cardio pulmonaryresuscitation. ❑ End of lifeCare ❑ Infection prevention (including HIV) and standard safety measures, bio-medical wastemanagement. ❑ Role of nurse- Evidence based nursing practice; Best practices ❑ Innovations innursing
VI	**20**	**Philosophy and Theories of Nursing** ❑ Values, Conceptual models,approaches. ❑ Nursing theories: Nightingale's, Hendersons's, Roger's, Peplau's, Abdella's, Lewine's, Orem's, Johnson's, King's, Neuman's, Roy's, Watson parsce, etc and theirapplications, ❑ Health belief models, communication and management,etc ❑ Concept of Selfhealth. ❑ Evidence based practicemodel.
VIII	**10**	**Nursing process approach** ❑ Health Assessment- illness status of patients/clients (Individuals, family, community), Identification of health-illness problems, health behaviors, signs and symptoms of clients. ❑ Methodsofcollection,analysisandutilizationofdatarelevant to nursingprocess. ❑ Formulation of nursing care plans, healthgoals, implementation, modification and evaluation of care.

IX	**30**	**Psychological aspects and Human relations** ❑ Human behavior, Life processes & growth and development, personality development, defensemechanisms, ❑ Communication, interpersonal relationships, individual and group, group dynamics, and organizationalbehavior, ❑ Basic human needs, Growth and development, (Conception through preschool, School age through adolescence, Young & middle adult, and Olderadult) ❑ Sexuality and sexualhealth. ❑ Stress and adaptation, crisis and itsintervention, ❑ Coping with loss, death andgrieving, ❑ Principles and techniques ofCounseling.
X	**10**	**Nursing practice** ❑ Framework, scope andtrends. ❑ Alternative modalities of care, alternative systems of health and complimentarytherapies. ❑ Extended and expanded role of the nurse, in promotive, preventive, curative and restorative health care delivery system inco ❑ immunity andinstitutions. ❑ Health promotion and primary healthcare. ❑ Independent practice issues, - Independent nurse-midwifery practitioner. ❑ Collaboration issues and models-within and outside nursing. ❑ Models ofPrevention, ❑ Family nursing, Homenursing, ❑ Gender sensitive issues and womenempowerment. ❑ Disaster nursing. Geriatric considerations innursing. ❑ Evidence based nursing practice- Bestpractices ❑ Trans-culturalnursing.
XI	**25**	**Computer applications for patient care delivery system and nursing practice** ❑ Use of computers in teaching, learning, research and nursingpractice. ❑ Windows,MSoffice:Word,Excel,PowerPoint, ❑ Internet, literaturesearch, ❑ Statistical packages, ❑ Hospital management information system:software's.

Course outcomes (Cos)

CO1	Appreciate and analyze the development of nursing as a profession
CO2	Describe ethical, legal, political and economic aspects of health care delivery and nursing practice.
CO3	Explain bio-psycho-social dynamics of health, life style and health care delivery system
CO4	Discuss concepts, principles, theories, models, approaches relevant to nursing and their application
CO5	Describe scope of nursing practice.
CO6	Provide holistic and competent nursing care following nursing process approach

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1		2	2	2	3	3		2	2	2	2		2		2
CO2		2	2	1				1		2			2		2
CO3	1				2	2				2	1		2		2
CO4	2						2			2	1		2	2	2
CO5	2	2	2	1	2	2						2			2
CO6	2	2	2	1	2				2	2	2	2			2

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low

Practical

Clinical posting in the followingareas:

Specialty area- in-patient unit	- 2 weeks
Community health center/PHC	- 2 weeks
Emergency/ICU	- 2 weeks

Activities

- Prepare Case studies with nursing process approach andtheoreticalbasis
- Presentation of comparative picture oftheories
- Family case- work using model ofprevention
- Annotated bibliography
- Report of field visits (5)

Methods of Teaching

- Lecture cumdiscussion
- Seminar
- Paneldiscussion
- Debate
- CasePresentations
- Exposure to scientificconferences
- Fieldvisits

Methods of evaluation:

- Tests
- Presentation
- Seminar
- Writtenassignments

Advance nursing Procedures

Definition, Indication and nursing implications; CPR, TPN, Hemodynamic monitoring, Endotracheal intubation, Tracheostoma, mechanical ventilation, Pacemaker, Hemodialysis,Peritoneal dialysis, LP, BT Pleural and abdominal paracentesis OTtechniques, Health assessment, Triage, Pulse oximetry.

Internal Assessment

Techniques	Weightage
Test- (2 tests)	50
Assignment	25
Seminar/presentation	25
	100

(19NRS03)- NURSING RESEARCH AND STATISTICS

PLACEMENT-IYEAR **Theory:150hours** **Credit:7.5**
Practical:100hours **Credit:5**

PART – A- NURSING RESEARCH

Theory:100hours **Credit:5**
Practical:50hours **Credit:2.5**

Course Description

The course is designed to assist the students to acquire an understanding ofthe research methodology and statistical methods as a basis for identifying research problem, planning and implementing a research plan. It willfurther enable the students to evaluate research studies and utilize researchfindings to improve quality of nursing practice, education and management

General Objectives:

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

1. Define basic research terms andconcepts.
2. Review literature utilizing varioussources
3. Describe researchmethodology
4. Develop a researchproposal.
5. Conduct a researchstudy.
6. Communicate researchfindings
7. Utilize researchfindings
8. Critically evaluate nursing researchstudies.
9. Write scientific paper forpublication.

Content Outline

Unit	Hours		Course Content
	Theory	Practical	
I	10		**Introduction:** ❑ Methods of acquiring knowledge – problem solving andscientificmethod. ❑ Research – Definition, characteristics, purposes, kindsofresearch ❑ Historical Evolution of research innursing ❑ Basic researchterms ❑ Scope of nursing research: areas, problems in nursing,health and socialresearch ❑ Concept of evidence-basedpractice ❑ Ethics inresearch ❑ Overview of Researchprocess
II	5	5	**Review of Literature** ❑ Importance, purposes, sources, criteria for selection of resources and steps in reviewing literature.
III	12		**Research Approaches and designs** ❑ Type: Quantitative andQualitative ❑ Historical, survey and experimental – Characteristics,types advantages anddisadvantages ❑ Qualitative: Phenomenology, grounded theory,ethnography
IV	10	5	**Research problem:** ❑ Identification of researchproblem ❑ Formulation of problem statement and researchobjectives ❑ Definition ofterms ❑ Assumptions anddelimitations ❑ Identification ofvariables ❑ Hypothesis–definition,formulationandtypes.
V	5	5	**Developing theoretical/conceptual framework.** ❑ Theories: Nature, characteristics, Purpose anduses ❑ Using, testing and developing conceptual framework,models andtheories.

VI	**6**		Sampling ❑ Population andsample ❑ Factors influencingsampling ❑ Samplingtechniques ❑ Samplesize ❑ Probability and samplingerror ❑ Problems ofsampling
VII	**20**	**10**	**Tools and methods of Data collection:** ❑ Concepts of datacollection ❑ Data sources, methods/techniques quantitative andqualitative. ❑ Tools for data collection – types, characteristics and theirdevelopment ❑ Validity and reliability oftools ❑ Procedure for datacollection
VIII	**5**		**Implementing research plan** ❑ Pilot Study, review research plan (design)., planning for data collection, administration of tool/interventions,collection ofdata
IX	**10**	**10**	**Analysis and interpretation of data** ❑ Plan for data analysis: quantitative andqualitative ❑ Preparing data for computer analysis and presentation. ❑ Statistical analysis ❑ Interpretation ofdata ❑ Conclusion andgeneralizations ❑ Summary anddiscussion
X	**10**		**Reporting and utilizing research findings:** ❑ Communication of research results; oral andwritten ❑ Writing research report purposes, methods and style-vancouver,AmericanPsychologicalAssociation(APA), Campbelletc ❑ Writing scientific articles for publication: purposes& style
XI	**3**	**8**	**Critical analysis of research reports and articles**
XII	**4**	**7**	**Developing and presenting a research proposal**

Course Outcomes(Cos)

CO1	Remember the research process and significance of statistics
CO2	Understand the research problem and objectives and sampling methods
CO3	Apply or implement the nursing interventions to collect the data
CO4	Analyse and interpret the data using descriptive and inferential statistics
CO5	Develop and evaluate research proposal and prepare the data tabulation.
CO6	Create and conduct a group/individual research project and communicate theresearch findings.

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	2	1		2			2	2	2		2	1	2
CO2		2	2			1					2	1	2		2
CO3		3		1			2			1	2		2		2
CO4	2					1			1		1		2	2	2
CO5	1	2	2	2	2		2	2		2		2			
CO6		2	2	2	2		2	2		2		2	2	2	2

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

Activities:

- Annotated Bibliography of research reports andarticles.
- Review of literature of selected topic andreporting
- Formulation of problem statement, objective andhypothesis
- Developing theoretical/conceptualframework.
- Preparation of a sample researchtool

- Analysis and interpretation of givendata
- Developing and presenting researchproposal
- Journal clubpresentation
- Critical evaluation of selected research studies
- Writing a scientificpaper

Method of Teaching

- Lecture-cum-discussion
- Seminar/Presentations
- Project
- Class roomexercises
- Journalclub

Methods of Evaluation

- Quiz, Tests(Term)
- Assignments/Termpaper
- Presentations
- Projectwork

Internal Assessment

Techniques	**Weightage (15marks)**
Term Test (2 tests)	40%
Assignment	20%
Presentation	20%
Project work	20%
Total	**100%**

PART – B- STATISTICS

Theory :50 hours Credit:2.5

Practical :50 hours Credit:2.5

Course Description

At the end of the course, the students will be able to develop an understanding of the statistical methods and apply them in conducting research studies in nursing.

General Objectives

At the end of the course the students will be able to:

1. Explain the basic concepts related tostatistics
2. Describethescopeofstatisticsinhealthandnursing
3. Organize, tabulate and present datameaningfully.
4. Use descriptive and inferential statistics to predictresults.
5. Draw conclusions of the study and predict statistical significance oftheresults.
6. Describe vital health statistics and their use in health-related research.
7. Use statistical packages for dataanalysis

Unit	Hours		Course Content
	Theory	Practical	
I	7	4	**Introduction:** ❑ Concepts, types, significance and scope of statistics,meaning ofdata, ❑ sample,parameter ❑ type and levels of data and theirmeasurement ❑ Organization and presentation of data – Tabulationofdata; ❑ Frequencydistribution ❑ Graphical and tabularpresentations.
II	4	4	**Measures of central tendency:** ❑ Mean, Median,Mode
III	4	5	**Measures of variability;** ❑ Range, Percentiles, average deviation,quartile

			deviation, standard deviation
IV	**3**	**2**	**Normal Distribution:** ❑ Probability, characteristics and application of normal probability curve; samplingerror.
V	**6**	**8**	**Measures of relationship:** ❑ Correlation – need andmeaning ❑ Rank ordercorrelation; ❑ Scatter diagrammethod ❑ Product momentcorrelation ❑ Simple linear regression analysis andprediction.
VI	**5**	**2**	**Designs and meaning:** ❑ Experimentaldesigns ❑ Comparison in pairs, randomized block design, Latinsquares.
VII	**8**	**10**	**Significance of Statistic and Significance of difference between two Statistics (Testing hypothesis)** ❑ Non parametric test – Chi-square test, Sign,median test, Mann Whitneytest. ❑ Parametric test – 't' test, ANOVA, MANOVA, ANCOVA
VIII	**5**	**5**	**Use of statistical methods in psychology and education:** ❑ Scaling–ZScore,ZScaling ❑ Standard Score and TScore ❑ Reliability of test Scores: test-retest method, parallel forms, split halfmethod.
IX	**4**	**2**	**Application of statistics in health:** ❑ Ratios, Rates,Trends ❑ Vitalhealthstatistics–Birthanddeathrates. ❑ Measures related to fertility, morbidity and mortality
X	**4**	**8**	**Use of Computers for data analysis** ❑ Use of statisticalpackage.

Activities

- Exercises on organization and tabulation ofdata,
- Graphical and tabular presentation ofdata
- Calculation of descriptive and inferential statistics (chi square,t-test,correlation)
- Practice in using statisticalpackage
- Computing vital healthstatistics

Methods of Teaching:

- Lecture-cum-discussion
- Demonstration – on data organization,tabulation, calculation ofstatistics, use of statistical package, Classroom exercises, organization and tabulation ofdata,
- Computing Descriptive and inferential statistics; vital and healthstatistics and use of computer for data entry and analysis using statisticalpackage.

Methods of Evaluation

- Test, Classroom statisticalexercises.

Internal Assessment

Techniques	***Weightage 10marks***
Test –(2tests)	**100%**

(19MSN04)-CLINICAL SPECIALITY-I MEDICAL SURGICAL NURSING

PLACEMENT-IYEAR **Theory: 150hours** **Credit:7.5**
Practical:650hours **Credit:32.5**

Course Description

This course is designed to assist students in developing expertise and in- depth understanding in the field of Medical Surgical Nursing . It will help students to appreciate the client as a holistic individual and develop skill to function as an independent nurse practitioner. It will further enable the student to function as educator, manager, and researcher in the field of medical surgical nursing

Objectives

At the end of the course the students will be able to:

1. Appreciate the trends & issues in the field of Medical – Surgical Nursing as aspeciality.
2. Apply concepts &theories related to healthpromotion.
3. Appreciate the client as a holisticindividual.
4. Perform physical, psychosocial assessment of Medical – Surgical patients.
5. Apply Nursing process in providing care topatients.
6. Integrate the concept of family centered nursing care with associated disorder such as genetic, congenital and long-termillness.
7. Recognize and manage emergencies with Medical- Surgicalpatients.
8. Describe various recent technologies & treatment modalities in the management of critically illpatients.
9. Appreciate the legal & ethical issues relevant to Medical – Surgical Nursing.
10. Prepare a design for layout and management of Medical – Surgical Units.
11. Appreciate the role of alternative systems of Medicine in care of patients.
12. Incorporate evidence based Nursing practice and identify the areas of research in the field of Medical – SurgicalNursing.
13. Recognize the role of Nurse practitioner as a member of the Medical – Surgical healthteam.
14. Teach Medical – Surgical Nursing to undergraduate nursing students & in-servicenurses.

COURSE CONTENT:

Unit	Hours	Content
I	5	**Introduction:** □ Historical development of Medical- Surgical Nursing inIndia. □ Current status of health and disease burden inIndia. □ Current concept ofhealth. □ Trends & issues in Medical – SurgicalNursing. □ Ethical & cultural issues in Medical – SurgicalNursing. □ Rights ofpatients. □ National health policy, special laws & ordinances relating to older people. □ Nationalgoals. □ Five yearplans. □ National health programs related to adulthealth.
II	20	**Health Assessment of patients** □ Historytaking. □ Physical examination of various systems. □ Nutritionalassessment. □ Related investigations and diagnosticassessment.
III	5	**Care in hospital settings:** □ Ambulatorycare. □ Acute and Criticalcare. □ Long termcare. □ Home HealthCare. □ Characteristics, care models, practice settings, interdisciplinary team. □ Hospitalization- effects of hospitalization on the patient &family. □ Stressors & reactions related to diseaseprocess. □ Nursing care using Nursing processapproach.
IV	10	**Management of patients with disorders of Gastro intestinal tract** □ Review of anatomy andphysiology. □ Common Disorders-etiology, Patho physiology, Clinical manifestations, complications,prognosis. □ Health assessment- History taking, physical examination, investigation and diagnostic assessment. □ Treatment modalities andtrends. □ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.

Unit	Hours	Content
V	10	**Management of patients with disorders of nervous system** □ Review of anatomy andphysiology. □ Common Disorders- etiology, Patho physiology,Clinicalmanifestations, complications,prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. □ Treatment modalities andtrends. □ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.
VI	10	**Management of patients with disorders of respiratorysystem** □ Review of anatomy andphysiology. □ Common Disorders- etiology, Patho physiology,Clinicalmanifestations, complications,prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. □ Treatment modalities andtrends. □ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.
VII	10	**Management of patients with disorders of cardio vascular system** □ Review of anatomy andphysiology. □ Common Disorders- etiology, Patho physiology,Clinicalmanifestations, complications,prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. □ Treatment modalities andtrends. □ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.
VIII	5	**Management of patients with disorders of blood** □ Review of anatomy andphysiology. □ Common Disorders- etiology, Patho physiology,Clinicalmanifestations, complications,prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. □ Treatment modalities andtrends. □ Nursingmanagement. □ Related research studies □ Evidence based nursingpractice □ Rehabilitation andfollow-up
IX	10	**Management of patients with disorders of genito urinary system** □ Review of anatomy andphysiology. □ Common Disorders- etiology, Patho physiology, Clinical manifestations, complications,prognosis.

Unit	Hours	Content
		□ Health assessment-History taking, physical examination, investigation and diagnostic assessment. □ Treatment modalities andtrends. □ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.
X	10	**Management of patients with disorders of endocrine system** □ Review of anatomy andphysiology. □ Common Disorders- etiology, Patho physiology, Clinical manifestations, complications,prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. □ Treatment modalities andtrends. □ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.
XI	10	**Management of patients with disorders ofmusculo-skeletal system** □ Review of anatomy andphysiology. □ Common Disorders- etiology, Patho physiology,Clinicalmanifestations, complications,prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. □ Treatment modalities andtrends. □ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.
XII	8	**Management of patients with disorders of integumentory system** □ Review of anatomy andphysiology. □ Common Disorders- etiology, Patho physiology,Clinicalmanifestations, complications,prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. □ Treatment modalities andtrends. □ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.
XIII	5	**Management of patients with disorders of Eye and ENT** □ Review of anatomy andphysiology. □ Common Disorders-etiology, Patho physiology, Clinical manifestations, complications,prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. □ Treatment modalities andtrends.

Unit	Hours	Content
		□ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.
XIV	8	**Management of patients with disorders of reproductive system** □ Review of anatomy andphysiology. □ Common Disorders- etiology, Patho physiology, Clinical manifestations, complications,prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. □ Treatment modalities andtrends. □ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.
XV	8	**Geriatric nursing** □ Nursing Assessment-History and Physicalassessment. □ Ageing; □ Demography; Myths andrealities. □ Concepts and theories ofageing. □ Cognitive Aspects ofAgeing. □ Normal biologicalageing. □ Age related body systemschanges. □ Psychosocial Aspects ofAging. □ Medications andelderly. □ Stress & coping in olderadults. □ Common Health Problems & NursingManagement; □ Psychosocial andSexual. □ Abuse ofelderly. □ Role of nurse for care of elderly: ambulation, nutritional, communicational, psychosocial andspiritual. □ Role of nurse for caregivers ofelderly. □ Role of family and formal and non formalcaregivers. □ Use of aids and prosthesis (hearing aids,dentures, □ Legal & EthicalIssues. □ Provisions andProgrammesforelderly;privileges,Community Programs and healthservices; □ Home and institutionalcare. □ Issues, problems andtrends.
XVI	8	**Management of patients with communicable and sexually transmitted diseases:** □ Review of immunesystem. □ Common Disorders of immune system –HIV/AIDS. □ Review of infectious diseaseprocess. □ Communicable Diseases- etiology, Patho physiology, Clinical manifestations, complications,prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. □ Treatment modalities andtrends.

Unit	Hours	Content
		□ Nursingmanagement. □ Related research studies. □ Evidence based nursingpractice. □ Rehabilitation andfollow-up.
XVII	8	**Emergency, trauma and multi-system organ failure** □ DIC (disseminated intravascularcoagulation) □ Trauma, burns,poisoning □ Etiology, Patho physiology, Clinical manifestations, complications, prognosis. □ Health assessment-History taking, physical examination, investigation and diagnosticassessment. • Treatment modalities andtrends. • Nursingmanagement. • Related research studies. • Evidence based nursingpractice. • Rehabilitation andfollow-up.

Course Outcomes (Cos)- Clinical Speciality-I (MEDICALSURGICAL NURSING)

CO1	Remember the basic concepts of Medical surgical Nursing.
CO2	Understand of pathophysiology of medical surgical diseases
CO3	Apply recent advance managements of medical surgical disorders.
CO4	Analyze the deviations from normal physiological values of medical surgical disorders and take judicious judgement to handle the emergency conditions to save the life .
CO5	Evaluate the areas of research in medical surgical Nursing and integrate best evidence in Nursing practice.
CO6	Formulate/ Create the new standards/protocol for Nursing Management for medical surgical Emergencies.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2				1	1		1	1	1	1	1		1	1
CO2						2						1		1	1
CO3		1	1			1		1	3	1	1	1		2	1
CO4	1	1	2			1		1	3	1	1	1			1
CO5										1					1
CO6	1		1		1	1	1			1	1		1	1	1

Mapping / Alignment of Cos with PO & PSO

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

PRACTICAL

TOTAL:660 HOURS
1WEEKS:30 HOURS

S.No.	Dept/Unit	No. of Week	Total Hours
	General Medical Ward	4	120 Hours
	General Surgical Ward	4	120 Hours
	ICUs	4	120 Hours
	Oncology	2	60 Hours
	Ortho	2	60 Hours
	Cardio	2	60 Hours
	Emergency Department	2	60 Hours
	Neuro	2	60 Hours
	Total	**22 Weeks**	**660 Hours**

Student Activities:

- Clinicalpresentations
- Historytaking
- HealthAssessment
- NutritionalAssessment
- Health Education related to diseaseconditions
- Casestudies
- Projectwork
- Fieldvisits

ELECTIVE COURSE
(19ECCPR01)- CARDIOPULMONARY RESUSCITATION)

Part A- Introduction of the Course

Introduction:. The courses in this program teach skills that participants need to know to give immediate care to a suddenly injured or ill person until more advanced medical personnel arrive and take over.

Course Objective and Summary

1. Recognize the signals of a cardiac emergency.
2. List the causes of cardiac arrest.
3. Explain the role of CPR in cardiac arrest.
4. Demonstrate how to perform CPR.
5. Recognize the signals of a breathing emergency.
6. Demonstrate how to open a casualty's airway and check for breathing
7. Demonstrate how to place an unresponsive casualty in the recovery position
8. Be able to manage an unresponsive casualty who is not breathing normally
9. Recognise the need to commence Cardiopulmonary Resuscitation (CPR)
10. Perform Cardiopulmonary Resuscitation using a manikin

- **Summary**: Cardiopulmonary resuscitation (CPR) is a technique used to slow the process of brain death by restarting the heart and getting a person breathing again. Cardiopulmonary Resuscitation (CPR) can provide oxygen to the brain and other vital organs of a person who, by every indication, is dead. Used early and correctly, the technique can buy time for the victim until medical attention can be given.

Course Outcomes (Cos)

CO1	Remember the systematic review of circulatory system
CO2	Understand the importance of CPR
CO3	Apply or implement the techniques in CPR
CO4	Analyse the benefits and the outcome of CPR
CO5	Awareness of human factors relevant to airway management(based on Bloom's Taxonomy)
CO6	Awareness of importance of a team approach

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1		1	2	2	2			2	2	3		2	1
CO2	1	1		1						1	1	2		1	1
CO3		2		1	1	1	1	1		1	2	1		1	
CO4		1	1	1				1	3	2	2	1	1	1	
CO5		1	1	1	1	1	1	1				1	1	2	
CO6	1	1	1	1					3	2	2	1	1	1	

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

Part B- Content of the Course

Course Content

Alignment of topics of the courses with COs

Unit	Learning Objective	Content	Hrs	Alignment to COs
I	Explain the importance of CPR	➢ Introduction ➢ Anatomy And Physiology Of Circulatory System ➢ Purpose ➢ Indication ➢ Contraindication ➢ Principles Of CPR	T (10) P (3)	CO1 & CO2
II	Describe the steps of CPR	➢ Seven steps of CPR ➢ CAB ➢ ABC vs CAB ➢ Ventilation mouth to mouth ➢ Pocket mask ➢ By valve mask ➢ Neonatal resuscitation	T (10) P (5)	CO3
III	Explain post resuscitation management	➢ Post cardiac arrest care guidelines ➢ Chain of survival guidelines ➢ Legal And Ethical Issues	T (10) P (2)	CO4 & CO5

1. **Teaching- Learning Strategies**

(i) Lecture cum Discussion
(ii) Seminar
(iii) Lab – demonstration on various techniques of CPR
(iv) Re demonstration
(v) Assignments

1. **Assessment Techniques of each topic of the course**

S. No	**Topic**	**Assessment Techniques**
1.	Importance of CPR	Short answer, objective type
2.	Steps of CPR	Short answers, objective type, demonstration
3.	Post resuscitation management	Case scenario, Redemonstration

(19ECFA02)- FIRSTAIDNURSING

Part A- Introduction of the Course

Introduction: Basic First Aid training course is designed to provide attendees with practical first aid skills to treat bleeding, fractures, burns & injuries.

Course Objective and Summary

On completion of this course, learners will be;

*Able to understand their new responsibilities of an Occupational First Aider

*Able to provide appropriate treatment for the purpose of preserving life

*Able to minimize the consequences of injury until the arrival of medical assistance

*Able to provide appropriate treatment for an injury which does not require the attention of a medical practitioner or nurse

*Familiar with health & safety legislation on first aid in the workplace (e.g. Contents of First Aid Box)

*Understand and demonstrate essential life saving skills

Summary: First aid also provides reassurance to the patient and confidence in the first aider to respond appropriately. It's a necessary and critical stage for preventing serious harm and is an indispensable skill to have.

Course Outcomes (Cos)

CO1	Recognize an emergency and evaluate scene safety
CO2	Understand the importance of Firstaid
CO3	Apply or implement the techniques of Firstaid
CO4	Analysethe situation, and provide Firstaid
CO5	Develop a healthy life style(based on Bloom's Taxonomy)
CO6	Create and conduct group/individual training programmes.

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1		**1**	**1**			**2**		**1**	**3**	**2**	**2**		**1**	**2**	**1**
CO2		**1**	**1**			**1**		**1**	**3**				**1**	**1**	**1**
CO3		**2**	**2**	**1**		**1**		**1**	**3**				**2**	**1**	**1**
CO4	**1**	**1**		**1**	**2**	**1**	**1**	**1**	**3**		**2**	**1**	**1**	**1**	**1**
CO5	**1**	**1**		**2**	**1**	**1**				**3**	**1**	**1**			
CO6	**1**	**1**		**1**	**1**	**1**	**1**	**1**	**3**	**2**	**2**	**1**	**1**	**1**	**1**

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

Part B- Content of the Course

Course Content

Alignment of topics of the courses with COs

Unit	Learning Objective	Content	Hrs	Alignment to COs
I	Introduction to Firstaid	• **Introduction** • Define is First Aid • How and when to call Emergency Services • Principles of Treatment • Patient Approach & Examination (Scene Safety) • Brief Introduction to Wounds and Bleeding	T (10) P (3)	CO1 & CO2
II	Explain about various conditions requires first aid	• Head injuries • Dressings and bandages • Shock – fainting • Unconsciousness • Recovery position • Asphyxia and its causes	T (10) P (5)	CO3 & CO6
III	Demonstratethe life saving procedures	• Cardiopulmonary resuscitation • Treating foreign bodies, chemical splashes • Burns and scalds • Fractures, Sprains, Strains and Dislocations	T (10) P (2)	CO4 & CO5

2. **Teaching- Learning Strategies**

(vi) Lecture cum Discussion
(vii) Seminar
(viii) Lab – Demonstration
(ix) Re- Demonstration
(x) Assignments

2. Assessment Techniques of each topic of the course

S.No	Topic	Assessment Techniques
1.	Introduction	Short answer ,Skills Tests Collaborative learning projects Exams/tests/quizzes
2.	Various Conditions Require First Aid	Short answers, Objective type, Return demonstration
3.	Life saving procedures	Demonstration ,Classroom based power-point presentation with practical components; (i.e. Dealing with Emergencies)

(19ECOTT03)- OPERATION THEATRE TECHNIQUE

Introduction of the Course

Introduction: This course presents the student with an introductory overview related to the Drugs and solutions are required for the basic cleaning of the operating theatre, the preparation of the surgical setup, the scrub procedure of the operative team, the skin preparation of the patient, as medications used during the operation, and for cleaning of the theatre and equipment after the operation

Course Objective and Summary

1. Define the different techniques of OT
2. Explain types of operation Theatre
3. Explain the equipments used in operation Theatre
4. Distinguish OT protocol
5. Explain OT Carbolization
6. Enumerate the function of operation theatre
7. Explain the 4 methods of sterilization

Summary: Learning about Operation theatre technique will help the students learn about theatre techniques and its monitoring system.

Course Outcomes (Cos)

CO1	Understandingr the settings in operation theatre
CO2	Aalyse the functions of operation theatre
CO3	Recognize the categories of sterilization in OT
CO4	Apply equipments used in operation theatre
CO5	Develop the knowledge regarding principles of operation theatre)
CO6	Demonstrate the OT techniques while Performing Surgery

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1		1	1	3	2		2	1	2	2	2		1		1
CO2		1	1	3	3		1				1		1		1
CO3		2	2	3	1			1	2	1	2		2		1
CO4	1	1	1		2	1		1	2		2	1	1	1	
CO5	1	1	2		1	1			3		1	1	1	2	
CO6	1	3	1		1	1	1		1		2	1	1	1	

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

Content of the Course

Course Content

Alignment of topics of the courses with COs

Unit	Learning Objective	Content	Hrs	Alignment to COs
I	Introduction to operation theatre	**An overview of the course** • Introduction about operation theatre • Types of operation theatre • OT zone • OT carbolization	T (10) P (3)	CO1 & CO2
II	Explain about operation theatre technique	**Operation theatre technique** • Principles of operation theatre technique • Minor operation theatre • Equipments used in operation theatre • Sterile zone of OT	T (10) P (5)	CO3 & CO6
III	Explain about the sterilization methods in OT	**Sterilization methods in OT** • **Fumigation** • Plasma Gas Sterilizers • Autoclaves Vaporized Hydrogen Peroxide Sterilizers.	T (10) P (2)	CO4 & CO5

Teaching- Learning Strategies

(xi) Lecture cum Discussion
(xii) Seminar
(xiii) Lab – Demonstration
(xiv) Re- Demonstration
(xv) Assignments

Assessment Techniques of each topic of the course

S.No	Topic	Assessment Techniques
1.	**An overview of the course**	**Short answer**
2.	**OT principles and technique**	Short answers, Objective type, Return demonstration
3.	**OT disinfection**	Short answers, Objective type, sample calculation

(19ECABGAO4)-ABG ANALYSIS

Part A- Introduction of the Course

Introduction: This course presents the student with an introductory overview related An arterial blood gases (ABG) test measures the acidity (pH) and the levels of oxygen and carbon dioxide in the blood from an artery. This test is used to find out how well lungs are able to move oxygen into the blood and remove carbon dioxide from the blood. An elevation of HCO_3 (over 26 mEq/L), along with elevated pH, indicates metabolic alkalosis. A decrease of HCO_3 (under 22 mEq/L), along with decreased pH, indicates metabolic acidosis . If the PaO_2 level is decreased (less than 80 mmHg), hypoxemia is present.

Course Objective and Summary

1. Define the ABG Analysis
2. Explain the normal values of ABG analysis
3. Explain the procedure of taking sample for AB G analysis
4. Distinguish abnormal result of ABG analysis
5. Explain metabolic and respiratory acidosis
6. Explain metabolic and respiratory alkalosis

7. Explain care of patient after procedure

Summary: Learning about Operation theatre technique will help the students learn about ABG analysis.

Course Outcomes (Cos)

CO1	Understanding the normal ABG values
CO2	Demonstrate the procedure for sample collection in ABG analysis
CO3	Recognize the abnormal values in ABG analysis
CO4	Apply knowledge regarding metabolic and respiratory acidosis
CO5	Evaluate the abnormal values of ABG analysis
CO6	Understanding the care of patient after the procedure

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	**2**	**1**	**1**		**2**	**2**	**2**		**2**	**2**	**2**		**1**	**2**	**1**
CO2		**1**	**1**		**3**		**1**		**2**	**1**	**1**		**1**		**1**
CO3		**2**	**2**		**1**		**1**		**2**	**1**	**2**	**1**	**2**		**1**
CO4		**1**	**1**	**3**	**2**		**1**	**1**				**1**	**1**		
CO5	**1**	**1**	**2**				**1**	**1**	**3**	**3**	**1**	**1**	**1**		
CO6	**1**	**3**	**1**	**3**	**1**	**1**	**1**	**1**				**1**	**1**	**1**	

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

Content of the Course

Course Content

Alignment of topics of the courses with COs

UNIT	Learning Objective	Contents	Hrs	Alignment to COs
1	Introduction to Arterial gas analysis	• Review of anatomy and physiology of the blood vessels • Introduction to Arterial gas analysis • Definitions of arterial gas analysis • Indications and contraindications • Limitations • Complications • Post procedure management	T (10) P (3)	• CO1 & CO2
II	Explain the normal values and complications of abnormal blood gas level	• Base excess of blood gas • Respiratory acidosis • Respiratory alkalosis. ☐ Metabolic acidosis • Metabolic alkalosis. • Respiratory failure • Normal values of ABG • Interpretation of ABG • Compensation of ABG	T (10) P (5)	• CO3 & CO6
III	Explain the Arterial gas analysis procedure	• Preparing the patient • Rational and site selection • Puncturing and site preparation • Modified Allen's test • Preparation of equipment • Management of sample • Post sample patient care considerations • Management of Inoculation injury • Recording and reporting	T (10) P (2)	• CO4 & CO5

Teaching- Learning Strategies

1. Lecture cum Discussion
2. Seminar
3. Lab – Demonstration
4. Re- Demonstration
5. Assignments

Assessment Techniques of each topic of the course

S.No	Topic	Assessment Techniques
1.	**An overview of the course**	**Short answer**
2.	**ABG analysis procedure**	Short answers, Objective type, Return demonstration
3.	**ABG analysis values**	Short answers, Objective type, sample calculation

(19ECVPM05)- CENTRAL VENOUS PRESSURE MONITORING

Introduction of the Course

Introduction: This course is designed to provide nursing students with the skills required Central venous pressure is considered a direct measurement of the blood pressure in the right atrium and vena cava. It is acquired by threading a central venous catheter (subclavian double lumen central line shown) into any of several large veins. central venous pressure is measured by a central venous catheter placed through either the subclavian or internal jugular veins. The central venous pressure can be monitored using a pressure transducer or amplifier. First, the transducer or amplifier must be zeroed to atmospheric pressure.

Course Objective and Summary

1. De**fine** central venous pressure monitoring
2. Explain the normal CVP
3. Explain the purpose of CVP line
4. Explain causes increased CVP
5. Enumurate indications for a central venous line
6. Explain most common immediate complication of central line insertion
7. Enlist the signs of CVC problems

8. Explain the care of patient with CVP line
Summary:Learning about CVP monitoring will help the students to operate cardiac monitors and its interpretation will help the student to learn about cardiac functions in a distinct manner.

Course Outcomes (Cos)

CO1	Remember the systematic review of cardio vascular system
CO2	Understand the importance of Central venous pressure
CO3	Apply or implement the knowledge in Central venous pressure monitoring
CO4	Analyze issues of Central venous pressure monitoring
CO5	Assess the reading of Central venous pressure monitoring (based on Bloom's Taxonomy)
CO6	Develop the protocol of Central venous pressure monitoring in emergency units

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1				3	2	3		1		2		3	1	2	
CO2		1	1		3	1		1		1		2	1	1	
CO3		2	2		1	1		1		1		1		1	
CO4	3	1	1		2	1	1	1	1	2	2	1		1	1
CO5	1	1	2	3	1				1	3	1	1		2	2
CO6	1	1	1	3	1	1	1	1	1	2	2	1	1	1	1

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

Content of the Course

Course Content

Alignment of topics of the courses with COs

Unit	Learning Objective	Content	Hrs	Alignment to COs
I	Introduction to cardiac monitoring	Assessment of critically ill patient & its terminology Nursing care plan • Critical care nursing record &Reports for other units • Evaluation criteria • Respiratory assessment • Artificial airways • Suctioning (Use of ambu bag ,Percussion &viberation ,oxygen therapy & Inhalation therapy • Mechanical ventilation • Pulse oximeter&Capnogram • Arterial puncture & Arterial line • ABG interpretation • Chest tube	T (10) P (5)	CO1 & CO2
II	Explain the Central venous pressure monitoring	• central venous pressure monitoring • the normal CVP • the purpose of CVP line • causes increased CVP • manage CVP line • indications for a central venous line • most common immediate complication of central line insertion • signs of CVC problems • prevent complications of central venous catheters • Role of nurse in care of patient with CVP	T (10) P (5)	CO3 & CO4&CO5 C06

Teaching- Learning Strategies

1. Lecture cum Discussion
2. Seminar
3. Lab – Demonstration
4. Re- Demonstration
5. Assignments

Assessment Techniques of each topic of the course

S.No	Topic	Assessment Techniques
1.	Introduction to cardiac monitoring	Short answer
2.	Clinical application of CVP monitoring	Short answers, Objective type, Return demonstration
3.	Practice in clinical care units	Short answers, Objective type, sample calculation

(19NM05)- NURSING MANAGEMENT

PLACEMENT-IIYEAR **Hours of instruction**

Theory:150hours Credit:7.5

Practical:150hours Credit:7.5

Course Description

This course is designed to assist students to develop a broad understanding of Principles, concepts, trends and issues related to nursingmanagement.Further,itwouldprovideopportunitytostudents to understand, appreciate and acquire skills in planning, supervision andmanagementofnursingservicesatdifferentlevelstoprovidequality nursingservices.

Objectives

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

1. Describe the philosophy and objectives of the health care institutions at variouslevels.
2. Identify trends and issues in nursing
3. Discuss the public administration, health care administration vis a vis nursingadministration
4. Describe the principles of administration applied tonursing
5. Explain the organization of health and nursing services at the various levels/institutions.
6. Collaborate and co-ordinate with various agencies by using multi-sectoralapproach
7. Discusstheplanning, supervisionand management of nursing workforce for various health caresettings.
8. Discuss various collaborative models between nursing education and nursing service to improve the quality of nursingcare
9. Identify and analyze legal and ethical issues in nursingadministration
10. Describe the process of quality assurancein nursing services.
11. Demonstrate leadership in nursing at variouslevels

Course Content

Unit	Hours	Content
I	10	**Introduction** ❑ Philosophy, purpose, elements, principles and scope of administration ❑ Indian Constitution, Indian Administrative system vis a vis health care delivery system: National, State andLocal ❑ Organization and functions of nursing services and education at National, State, District and institutions: Hospital and Community ❑ Planningprocess:Five-yearplans,VariousCommitteeReports on health, State and National Health policies, national population policy, national policy on AYUSH and plans,
II	10	**Management** ❑ Functions ofadministration ❑ Planning andcontrol ❑ Co-ordination anddelegation ❑ Decision making – decentralization basic goals of decentralization. ❑ Concept ofmanagement **Nursing management** ❑ Concept, types, principles andtechniques ❑ Vision and MissionStatements ❑ Philosophy, aims andobjective ❑ Current trends and issues in NursingAdministration ❑ Theories andmodels Application to nursing service and education
III	15	**Planning** ❑ Planning process: Concept, Principles, Institutionalpolicies ❑ Mission, philosophy,objectives, ❑ Strategicplanning ❑ Operationalplans ❑ Managementplans ❑ Programme evaluation and review technique (PERT), Gantt chart,Management by objectives(MBO) ❑ Planning newventure ❑ Planning forchange ❑ Innovations innursing Application to nursing service and education

IV	**15**	**Organization** ❑ Concept, principles, objectives, Types and theories, Minimum requirements for organization, Developing an organizational Structure, levels, organizational Effectiveness andorganizationalClimate, ❑ Organizing nursing services and patient care: Methods of patient assignment- Advantages and disadvantages, primary nursingcare, ❑ Planning and Organizing: hospital, unit and ancillary services (specifically central sterile supply department, laundry, kitchen, laboratory services, emergency etc) ❑ Disaster management: plan, resources, drill,etc Application to nursing service and education
V	**15**	**Human Resource for health** ❑ Staffing • Philosophy • Norms: Staff inspection unit (SIU), Bajaj Committee, High power committee, Indian nursing council(INC) • Estimation of nursing staff requirement- activityanalysis • Various researchstudies ❑ Recruitment: credentialing, selection, placement,promotion ❑ Retention ❑ Personnelpolicies ❑ Termination ❑ Staff developmentprogramme ❑ Duties and responsibilities of various category of nursing personnel Applications to nursing service andeducation
VI	**15**	**Directing** ❑ Roles andfunctions ❑ Motivation: Intrinsic, extrinsic, Creating motivating climate, Motivationaltheories ❑ Communication: process, types, strategies, Interpersonal communication, channels, barriers, problems, Confidentiality, Publicrelations ❑ Delegation; common delegationerrors ❑ Managing conflict: process, management, negotiation, consensus ❑ Collective bargaining: health care labour laws,unions,

		professional associations, role of nursemanager ❑ Occupational health andsafety Application to nursing service andeducation
VII	**10**	**Material management** ❑ Concepts, principles andprocedures ❑ Planning and procurement procedures:Specifications ❑ ABCanalysis, ❑ VED (very important and essential daily use)analysis ❑ Planning equipments and supplies for nursing care: unit andhospital ❑ Inventorycontrol ❑ Condemnation Application to nursing service andeducation
VIII	**15**	**Controlling** □ Quality assurance – ContinuousQuality Improvement • Standards • Models • Nursingaudit □ Performance appraisal: Tools, confidential reports, formats, Management,interviews □ Supervision and management: concepts andprinciples □ Discipline: service rules, self-discipline, constructive versus destructive discipline, problem employees, disciplinary proceedings- enquiryetc □ Self-evaluation or peer evaluation, patient satisfaction, utilizationreview Application to nursing service andeducation
IX	**15**	**Fiscal planning** □ Steps □ Plan and non-plan, zero budgeting, mid-term appraisal, capital andrevenue □ Budget estimate, revised estimate, performancebudget □ Audit □ Costeffectiveness □ Costaccounting □ Criticalpathways □ Health carereforms □ Healtheconomics □ Healthinsurance □ Budgeting for various units an and levels Application to nursing service andeducation

X	**10**	**Nursing informatics** □ Trends □ Generalpurpose □ Use of computers in hospital andcommunity □ Patient recordsystem □ Nursing records andreports □ Management information and evaluation system(MIES) □ E- nursing, Telemedicine,telenursing □ Electronic medicalrecords
XI	**10**	**Leadership** □ Concepts, Types,Theories □ Styles □ Managerbehavior □ Leaderbehavior □ Effective leader: Characteristics,skills □ Groupdynamics □ Power andpolitics □ lobbying □ Critical thinking and decisionmaking □ Stressmanagement Applications to nursing service andeducation
XII	**10**	**Legal and ethical issues** Laws and ethics □ Ethicalcommittee □ Code of ethics and professionalconduct □ Legal system:Types of law, tort law, and liabilities □ Legal issues in nursing: negligence, malpractice, invasion of privacy, defamation ofcharacter □ Patientcareissues,managementissues,employmentissues □ Medico legalissues □ Nursing regulatory mechanisms: licensure, renewal, accreditation □ Patients' rights, Consumer protection act(CPA) □ Rights of special groups: children, women, HIV, handicap, ageing □ Professional responsibility andaccountability □ Infectioncontrol □ Standard safetymeasures

COURSE OUTCOMES (Cos)

CO1	Describe the philosophy and objectives of the Health care institution at various level
CO2	Identify trends and issues in Nursing
CO3	Discuss the public administration, health care administration vis a vis Nursing administration
CO4	Describe the Principles of administration applied to Nursing
CO5	Explain the organization of Health and Nursing services at the various level
CO6	Identify and analyse legal and ethical issues in Nursing Administration

Mapping / Alignment of Cos with PO & PSO

	PO1	PO 2	PO3	PO 4	PO5	PO 6	PO7	PO 8	PO9	PO1 0	PO11	PO12	PSO1	PSO 2	PSO 3
CO1	1	2	2	1		2			2	2	2		2	1	2
CO2		2	2			1					2	1	2		2
CO3		3		1			2			1	2		2		2
CO4	2					1			1		1		2	2	2
CO5	1	2	2	2	2		2	2		2		2			
CO6		2	2	2	2		2	2		2		2	2	2	2

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

PRACTICALS

- Prepare prototype personal files for staff nurses, faculty and cumulativerecords
- Preparation of budget estimate, Revised estimate and performance budget
- Plan and conduct staff developmentprogramme
- Preparation of OrganizationChart
- Developing nursing standards/protocols for variousunits
- Design a layout plan for specialty units /hospital, community and educationalinstitutions
- Preparationof job descriptionof various categories of nursingpersonnel
- Preparealistofequipmentandsuppliesforspecialtyunits
- Assess and prepare staffing requirement for hospitals, community and educationalinstitutions
- Plan of action for recruitmentprocess
- Prepare a vision and mission statement for hospital, community and educationalinstitutions
- Prepare a plan of action for performanceappraisal
- Identify the problems of the specialty units and develop plan of action by using problem solvingapproach
- Plan a duty roster for specialty units/hospital, community and educationalinstitutions
- Prepare: anecdotes, incident reports, day and night reports, handing and taking over reports, enquiry reports, nurses notes, Official letters, curriculum vitae, presentationsetc
- Prepare a plan for disastermanagement
- Groupwork
- Field appraisalreport

(19MSN04)- CLINICAL SPECIALITY-II

MEDICAL SURGICAL NURSING

PLACEMENT-IIYEAR

Theory: 150hours **Credit:7.5**
Practical: 950hours **Credit:47.5**

CARDIO VASCULAR AND THORACIC NURSING

Placement : II year

Hours of Instruction
Theory : 150 hours.
Practical : 950 hours.Total : 1100 hours.

Course Description

This course is designed to assist students in developing expertise and in-depth understanding in the field of cardiovascular and thoracic nursing. It will help students to develop advanced skills for nursing intervention in various cardio medical and surgical conditions. It will enable the student to function as Cardio vascular and Thoracic Nurse practitioner/specialist. It will further enable the student to function as educator, manager and researcher in the field of cardio vascular and thoracic nursing.

Objectives

At the end of the course the students will be able to:

1. Appreciate trends and issues related to cardio vascular and thoracic Nursing.
2. Describe the epidemiology, etiology, pathophysiology and diagnostic assessment of cardio vascular and thoracic conditions
3. Participate in national health programs for health promotion, prevention and rehabilitation of patients with cardio vascular and thoracic conditions
4. Perform physical, psychosocial & spiritual assessment
5. Assist in various diagnostic, therapeutic and surgical procedures
6. Apply nursing process in providing comprehensive care to patients with cardio vascular and thoracic conditions
7. Demonstrate advance skills/competence in managing patients withcardio vascular and thoracic conditions including Advance Cardiac Life Support.
8. Describe the various drugs used in cardio vascular and thoracic conditions and nurses responsibility
9. Demonstrate skill in handling various equipments/gadgets used for critical care of cardio vascular and thoracic patients
10. Appreciate team work & coordinate activities related to patient care.Practice infection control measures.

11. Identify emergencies and complications & take appropriate measures
12. Discuss the legal and ethical issues in cardio vascular and thoracicnursing
13. Assist patients and their family to cope with emotional distress, grief, anxiety and spiritual needs.
14. Appreciate the role of alternative system of medicine in care of patient
15. Incorporate evidence based nursing practice and identify the areas of research in the field of cardio vascular and thoracic nursing
16. Identify the sources of stress and manage burnout syndrome amonghealth care providers.
17. Teach and supervise nurses and allied health workers.
18. Design a layout of ICCU and ICTU and develop standards for cardio vascular and thoracic nursing practice.

Content Outline

Unit	Hours	Content
I	**5**	**Introduction** ❑ Historical development, trends and issues in the field of cardiology. ❑ Cardio vascular and thoracic conditions – major health problem. ❑ Concepts, principles and nursing perspectives ❑ Ethical and legal issues ❑ Evidence based nursing and its application in cardio vascular andthoracic nursing(to be incorporated in all the units)
II	**5**	**Epidemiology** ❑ Risk factors: hereditary, psycho social factors, hypertension,smoking, obesity, diabetes mellitus etc ❑ Health promotion, disease prevention, Life style modification ❑ National health programs related to cardio vascular and thoracicconditions ❑ Alternate system of medicine ❑ Complementary therapies
III	**5**	**Review of anatomy and physiology of cardio vascular andrespiratory system** ❑ Review of anatomy and physiology of heart, lung, thoracic cavityand blood vessels. Embryology of heart and lung. ❑ Coronary circulation ❑ Hemodynamics and electro physiology of heart. ❑ Bio-chemistry of blood in relation to cardio pulmonary function.
IV	**20**	**Assessment and Diagnostic Measures:** ❑ History taking ❑ Physical assessment • Heart rate variability: Mechanisms , measurements, pattern,factors, impact of interventions on HRV ❑ Diagnostic tests • Hemodynamic monitoring: Technical aspects, monitoring,functional hemodynamic indices, ventricular function indices,

Unit	Hours	Content
		output measurements (Arterial and swan Ganz monitoring). Blood gases and its significance, oxygen supply and demand • Radiologic examination of the chest: interpretation, chest film findings • Electro cardiography(ECG) : electrical conduction through the heart, basic electrocardiography, 12 lead electrocardiogram, axisdetermination – ECG changes in: intraventricular conduction abnormalities- Arrhythmias, ischemia, injury and infarction, atrial and ventricular enlargement, electrolyte imbalance, • Echocardiography: technical aspects, special techniques, echocardiography of cardiac structures in health and disease, newer techniques • Nuclear and other imaging studies of the heart: Magnetic Resonance Imaging. • Cardio electrophysiology procedures: diagnostic studies, interventional and catheter ablation, nursing care • Exercise testing: indications and objectives, safety and personnel, pretest considerations, selection, interpretation, test termination, recovery period • Cardiac catheterization: indications, contraindications, patient preparation, procedure, interpretation of data • Pulmonary function test: Bronchoscopy and graphies • Interpretation of diagnostic measures • Nurse's role in diagnostic tests ❑ Laboratory tests using blood: Blood specimen collection, Cardiacmarkers, Blood lipids, Hematologic studies, Blood cultures, Coagulation studies, Arterial blood gases, Blood Chemistries, cardiac enzyme studies, Serum Concentration of Selected drugs. ❑ Interpretation and role of nurse

V	**25**	**Cardiac disorders and nursing management:** ❑ Etiology, clinical manifestations, diagnosis, prognosis, relatedpathophysiology, treatment modalities and nursing management of: • Hypertension • Coronary Artery Disease. • Angina of various types. • Cardiomegaly • Myocardial Infarction, Congestive cardiac failure • Heart Failure, Pulmonary Edema, Shock. • Rheumatic heart disease and other Valvular Diseases • Inflammatory Heart Diseases, Infective Endocarditis,Myocarditis, Pericarditis. • Cardiomyopathy, dilated, restrictive, hypertrophic. • Arrhythmias, heart blockAssociated illnesses

Unit	Hours	Content
VI	**10**	**Altered pulmonary conditions** ❑ Etiology, clinical manifestations, diagnosis, prognosis, relatedpathophysiology, treatment modalities and nursing management of: • Bronchitis • Bronchial asthma • Bronchiectasis • Pneumonias • Lung abscess, lung tumour • Pulmonary tuberculosis, fibrosis, pneumoconiosis etc • Pleuritis, effusion • Pneumo, haemo and pyothorax • Interstitial Lung Disease • Cystic fibrosis • Acute and Chronic obstructive pulmonary disease (conditions leading to) • Cor pulmonale • Acute respiratory failure • Adult respiratory distress syndrome • Pulmonary embolism • Pulmonary Hypertension
VII	**10**	**Vascular disorders and nursing management** ❑ Etiology, clinical manifestations, diagnosis, prognosis, relatedpathophysiology, treatment modalities and nursing management of: • Disorders of arteries • Disorders of the aorta • Aortic Aneurysms, • Aortic dissection • Raynaud's phenomenon • Peripheral arterial disease of the lower extremities • Venous thrombosis • Varicose veins • Chronic venous insufficiency and venous leg ulcers • Pulmonary embolism
VIII	**10**	**Cardio thoracic emergency interventions** ❑ CPR- BLS and ALS ❑ Use of ventilator, defibrillator , pacemaker ❑ Post resuscitation care. ❑ Care of the critically ill patients ❑ Psychosocial and spiritual aspects of care ❑ Stress management; ICU psychosis ❑ Role of nurse

IX	**10**	**Nursing care of a patient with obstructive airway** ❑ Assessment ❑ Use of artificial airway ❑ Endotracheal intubation, tracheostomy and its care ❑ Complication, minimum cuff leak, securing tubes **Oxygen delivery systems.** ❑ Nasal Cannula

Unit	Hours	Content
		❑ Oxygen mask, Venturi mask ❑ Partial rebreathing bag ❑ Bi-PAP and C-PAP masks ❑ Uses, advantages, disadvantages, nursing implications of each. **Mechanical Ventilation** ❑ Principles of mechanical ventilation ❑ Types of mechanical ventilation and ventilators. ❑ Modes of ventilation, advantage, disadvantage, complications. ❑ PEEP therapy, indications, physiology, and complications. Weaningoff the ventilator. ❑ Nursing assessment and interventions of ventilated patient.
X	**10**	**Congenital Heart Diseases,** ❑ Etiology, clinical manifestations, diagnois, prognosis, related pathophysiology, treatment modalities and nursing management of: • Embryological development of heart. • Classification – cyanotic and acyanotic heart disease. • Tetralogy of Fallots. • Atrial Septal Defect, Ventricular Septal Defect., Eisenmenger'scomplex. • Patent ductus arteriosus, AP window • Truncus Arteriosus. • Transposition of great arteries. • Total Anomaly of Pulmonary Venous Connection. • Pulmonary stenosis, atresia. • Coarctation of aorta. • Ebstein's anomaly • Double outlet right ventricle, Single ventricle, Hypoplastic leftheart syndrome.

XI	**10**	**Pharmacology** ❑ **Review** ❑ Pharmacokinetics ❑ Analgesics/Anti inflammatory agents ❑ Antibiotics, antiseptics ❑ Drug reaction & toxicity ❑ Drugs used in cardiac emergencies ❑ Blood and blood components • Antithrombolytic agents • Inotropic agents • Beta-blocking agents • Calcium channel blockers. • Vaso constrictors • Vaso dilators • ACE inhibitors. • Anticoagulents • Antiarrhythmic drugs. • Anti hypertensives • Diuretics • Sedatives and tranquilizers. • Digitalis.

Unit	Hours	Content
		• Antilipemics ❑ Principles of drug administration, role and responsibilities ofnurses and care of drugs
XII	**20**	**Nursing Care of patient undergoing cardio thoracic surgery** ❑ Indications, selection of patient ❑ Preoperative assessment and preparation; counselling. ❑ Intraoperative care: Principles of open heart surgery, equipment, anaesthesia, cardiopulmonary by pass. ❑ Surgical procedures for Coronary Artery Bypass Grafting, recent advances and types of grafts, Valve replacement or reconstruction, cardiac transplant, Palliative surgery and different Stents, vascular surgery, other recent advances. ❑ Thoracic surgery: lobectomy, pneumonectomy, tumour excision etc ❑ Immediate postoperative care : assessment, post operative problems and interventions : Bleeding, Cardiac tamponade, Low cardiac output, Infarction, Pericardial effusion, Pleural effusion, Pneumothorax, Haemothorax, Coagulopathy, Thermal imbalance, Inadequate., ventilation/perfusion, Neurological problems, renal problems, Psychological problems. ❑ Chest physiotherapy ❑ Nursing interventions- life style modification, complementary therapy/alternative systems of medicine. ❑ Intermediate and late post operative care after CABG, valve surgery, others. Follow up care
XIII	**5**	**Cardiac rehabilitation** ❑ Process ❑ Physical evaluation ❑ Life style modification ❑ Physical conditioning for cardiovascular efficiency through exercise ❑ Counseling ❑ Follow up care
XIV	**5**	**Intensive Coronary Care Unit/intensive cardio thoracic unit:** ❑ Quality assurance • Standards, Protocols, Policies, Procedures • Infection control; Standard safety measures • Nursing audit • Design of ICCU/ICTU • Staffing; cardiac team • Burn out syndrome ❑ Nurse's role in the management of I.C.C.U and ICTU. ❑ Mobile coronary care unit. ❑ Planning inservice educational programme and teaching

Practicals

Total – 960 Hours1 Weeks = 30 Hours

S.No.	Deptt/ Unit	No. of Week	Total Hours
1	Cardio thoracic -Medical	4	120 Hours
	-Surgical	4	120 Hours
2.	OTs (Cardiac and thoracic)	4	120 Hours
3.	Casualty	2	60 Hours
4.	Diagnostic labs including cath lab	2	60 Hours
5.	ICCU	4	120 Hours
6.	ICU	4	120 Hours
7.	CCU	4	120 Hours
8.	Paediatric Intensive	2	60 Hours
9.	OPD	2	60 Hours
	Total	**32 Weeks**	**960 Hours**

Essential Nursing Skills

Procedures Observed

1. Echo cardiogram
2. Ultrasound
3. Monitoring JVP , CVP
4. CT SCAN
5. MRI
6. Pet SCAN
7. Angiography
8. Cardiac cathetrisation
9. Angioplasty
10. Various Surgeries
11. Any other

Procedures Assisted

1. Arterial blood gas analysis
2. Thoracentesis
3. Lung biopsy
4. Computer assisted tomography (CAT Scan)
5. M.R.I.
6. Pulmonary angiography
7. Bronchoscopy
8. Pulmonary function test
9. ET tube insertion
10. Tracheostomy tube insertion
11. Cardiac catheterisation
12. Angiogram
13. Defibrillation
14. Treadmill test

15. Doppler ultrasound
16. Cardiac surgery
17. Insertion of chest tube
18. CVP Monitoring
19. Measuring pulmonary artery pressure by Swan-Ganz Catheter
20. Cardiac Pacing

I. Procedures Performed

1. Preparation of assessment tool for CT client (Cardiac, thoracic andvascular).
2. ECG – Recording, Reading, Identification of abnormalities
3. Oxygen therapy – Cylinder, central supply,
   Catheter, nasal canula, mask, tent
   Through ET and Tracheostomy
   tubeManual resuscitation bag
4. Mechanical ventilation
5. Spirometer
6. Tuberculen skin test
7. Aerosal therapy
8. Nebulizer therapy
9. Water seal drainage
10. Chest physiotheray including – Breathing
    ExercisesCoughing Exercises
    Percussion & Vibration
11. Suctioning – Oropharyngeal, nasotracheal,
    EndotrachiealThrough tracheostomy tube
12. Artificial airway cuff maintenance
13. CPR
14. Care of client on ventilator
15. Identification of different –
    Arrhythmia
    sAbnormal pulses, respirations
    B.P. Variation
    Heart sounds
    Breath
    sounds
16. Pulse oxymetry
17. Introduction of intracath
18. Bolus I.V. Injection
19. Life line
20. Maintenance of "Heplock"
21. Subcutaneous of Heparin
22. Obtaining leg measurements to detect early swelling
    inthrombophlebetes
23. Identification of Homans signs
24. Buergen – Allen exercises

MEDICAL SURGICAL NURSING - CRITICAL CARE NURSING

Placement: II Year

Hours of instruction
Theory: 150 hours
Practical: 950 hoursTotal : 1100 hours

Course Description

This course is designed to assist students in developing expertise and in-depth knowledge in the field of Critical care Nursing. It will help students to develop advanced skills for nursing intervention in caring for critically ill patients. It will enable the student to function as critical care nurse practitioner/ specialist. It will further enable the student to function as educator, manager and researcher in the field of Critical Care Nursing.

Objectives

At the end of the course the students will be able to

1. Appreciate trends and issues related to Critical Care Nursing.
2. Describe the epidemiology, etiology, pathophysiology and diagnostic assessment of critically ill patients
3. Describe the various drugs used in critical care and nursesresponsibility
4. Perform physical, psychosocial & spiritual assessment
5. Demonstrate advance skills/competence in managing critically ill patients including Advance Cardiac Life Support.
6. Demonstrate skill in handling various equipments/gadgets used forcritical care
7. Provide comprehensive care to critically ill patients.
8. Appreciate team work & coordinate activities related to patient care.
9. Practice infection control measures.
10. Assess and manage pain .
11. Identify complications & take appropriate measures.
12. Discuss the legal and ethical issues in critical care nursing
13. Assist patients and their family to cope with emotional distress, spiritual, grief and anxiety
14. Assist in various diagnostic, therapeutic and surgical procedures
15. Incorporate evidence based nursing practice and identify the areas

ofresearch in the field of critical care nursing

16. Identify the sources of stress and manage burnout syndrome among health care providers.
17. Teach and supervise nurses and allied health workers.
18. Design a layout of ICU and develop standards for critical care nursingpractice.

Course Content

Unit	Hours	Content
I	5	**Introduction to Critical Care Nursing** ❑ Historical review- Progressive patient care(PPC) ❑ Review of anatomy and physiology of vital organs, fluid and electrolyte balance ❑ Concepts of critical care nursing ❑ Principles of critical care nursing ❑ Scope of critical care nursing ❑ Critical care unit set up including equipments supplies, use andcare of various type of monitors & ventilators ❑ Flow sheets
II	10	**Concept of Holistic care applied to critical care nursing practice** ❑ Impact of critical care environment on patients:- • Risk factors, Assessment of patients, Critical care psychosis, prevention & nursing care for patients affected with psychophysiological & psychosocial problems of critical care unit, Caring for the patient's family, family teaching ❑ The dynamics of healing in critical care unit:-therapeutic touch, Relaxation, Music therapy, Guided Imagery, acupressure ❑ Stress and burnout syndrome among health team members
III	14	**Review** ❑ Pharmacokinetics ❑ Analgesics/Anti inflammatory agents ❑ Antibiotics, antiseptics ❑ Drug reaction & toxicity ❑ Drugs used in critical care unit (inclusive of ionotropic, life savingdrugs) ❑ Drugs used in various body systems ❑ IV fluids and electrolytes ❑ Blood and blood components ❑ Principles of drug administration, role of nurses and care of drugs
IV	5	**Pain Management** ❑ Pain & Sedation in Critically ill patients ❑ Theories of pain, Types of pain, Pain assessment, Systemicresponses to pain ❑ pain management-pharmacological and non-pharmacologicalmeasures ❑ Placebo effect

Unit	Hours	Content
V	5	**Infection control in intensive care unit** ❑ Nosocomial infection in intensive care unit; methyl resistant staphylococcus aureus (MRSA), Disinfection, Sterilization, Standard safety measures, Prophylaxis for staff
VI	10	**Gastrointestinal System** ❑ Causes, Pathophysiology, Clinical types, Clinical features, diagnosis, Prognosis, Management: Medical, Surgical and Nursing management of:-Acute Gastrointestinal Bleeding, Abdominal injury, Hepatic Disorders:-Fulminent hepatic failure, Hepatic encephalopathy, Acute Pancreatitis, Acute intestinal obstruction,perforative peritonitis
VII	10	**Renal System** ❑ Causes, pathophysiology, Clinical types,Clinical features, diagnosis, Prognosis, Management: Medical, Surgical and Nursing management of:-Acute Renal Failure, Chronic Renal Failure, Acute tubular necrosis, Bladder trauma ❑ Management Modalities: Hemodialysis, Peritoneal Dialysis, Continuous Ambulatory Peritoneal Dialysis, Continuous arterio venus hemodialysis, Renal Transplant,
VIII	10	**Nervous System** ❑ Causes, pathophysiology, Clinical types,Clinical features, diagnosis, Prognosis, Management: Medical, Surgical and Nursing management of:-Common Neurological Disorders:-Cerebrovascular disease, Cerebrovascular accident, Seizure disorders, GuilleinBarre-Syndrome, Myasthenia Gravis, Coma, Persistent vegetative state, Encephalopathy, Head injury, Spinal Cord injury ❑ Management Modalities: Assessment of Intracranial pressure, Management of intracranial hypertension, Craniotomy ❑ Problems associated with neurological disorders: Thermo regulation, Unconsciousness, Herniation syndrome
IX	5	**Endocrine System** ❑ Causes, Pathophysiology, Clinical types, Clinical features, diagnosis, Prognosis, Management: Medical, Surgical and Nursing Management of :-Hypoglycemia, Diabetic Ketoacidosis, Thyroid crisis, Myxoedema, Adrenal crisis, Syndrome of Inappropriate/ hypersecretion of Antidiuretic Hormone (SIADH)
X	15	**Management of other Emergency Conditions** ❑ Mechanism of injury, Thoracic injuries, Abdominal injuries, pelvicfractures, complications of trauma, Head injuries ❑ Shock: Shock syndrome, Hypovolemic, Cardiogenic, Anaphylactic,Neurogenic and Septic shock ❑ Systemic inflammatory Response:The inflammatory response,Multiple organ dysfunction syndrome ❑ Disseminated Intravascular Coagulation ❑ Drug Overdose and Poisoning, ❑ Acquired Immunodeficiency Syndrome (AIDS)

Unit	Hours	Content
		❑ Ophthalmic: Eye injuries, Glaucoma, retinal detachment ❑ Ear Nose Throat: Foreign bodies, stridor, bleeding, quincy, acuteallergic conditions ❑ Psychiatric emergencies;, suicide, ❑ crisis intervention
XI	**20**	**Cardiovascular emergencies** ❑ Principles of Nursing in caring for patient's with Cardiovasculardisorders ❑ Assessment: Cardiovascular system: Heart sounds, Diagnostic studies:- Cardiac enzymes studies, Electrocardiographic monitoring, Holter monitoring, Stress test. Echo cardiography,Coronary angiography, Nuclear medicine studies ❑ Causes, Pathophysiology, Clinical types, Clinical features, Diagnostic Prognosis, Management : Medical, Surgical & Nurisng management of:-Hypertensive crisis, Coronary artery disease, Acute Myocardial infarction, Cardiomyopathy, Deep vein thrombosis, Valvular diseases, Heart block, Cardiac arrhythmias & conduction disturbances, Aneurysms, Endocarditis, Heart failure Cardio pulmonary resuscitation BCLS/ ACLS ❑ Management Modalities: Thrombolytic therapy, Pacemaker – temporary & permanent, Percutaneous transluminal coronary angioplasty, Cardioversion, Intra Aortic Balloon pump monitoring, Defibrillations, Cardiac surgeries, Coronary Artery Bypass Grafts (CABG/MICAS), Valvular surgeries, Heart Transplantation, Autologous blood transfusion, Radiofrequency Catheter Ablation

XII	**15**	**Respiratory System** ❑ Acid-base balance & imbalance ❑ Assesment : History & Physical Examination ❑ Diagnostic Tests:Pulse Oximetry, End –Tidal Carbon Dioxide Monitoring, Arterial blood gas studies, chest radiography, pulmonary Angiography, Bronchoscopy, Pulmonary function Test, Ventilation perfusion scan, Lung ventilation scan ❑ Causes Pathophysiology, Clinical types, Clinical features, Prognosis, Management: Medical, Surgical and Nursing management of Common pulmonary disorders:-Pneumonia, Status asthmaticus, interstitial drug disease, Pleural effusion, Chronic obstructive pulmonary disease, Pulmonary tuberculosis, Pulmonary edema, Atelectasis, Pulmonary embolism, Acute respiratory failure, Acute respiratory distress syndrome (ARDS), Chest Trauma Haemothorax, Pneumothorax ❑ Management Modalities:-Airway Management ❑ Ventilatory Management:-Invasive, non- invasive, long term mechanical ventilations ❑ Bronchial Hygiene:-Nebulization, deep breathing exercise, chest physiotherapy, postural drainage, Inter Costal Drainage, Thoracic surgeries

Unit	Hours	Content
XIII	7	**Burns** ❑ Clinical types, classification, pathophysiology, clinical features, assessment, diagnosis, prognosis, Management: Medical, Surgical& Nursing management of burns ❑ Fluid and electrolyte therapy – calculation of fluids and itsadministration ❑ Pain management ❑ Wound care ❑ Infection control ❑ Prevention and management of burn complications ❑ Grafts and flaps ❑ Reconstructive surgery ❑ Rehabilitation
XIV	5	**Obstetrical Emergencies** ❑ Causes, Pathophysiology, Clinical types, clinical features, diagnostic Prognosis, Management: Medical, Surgical and Nursingmanagement of :Antepartum haemorrhage, Preeclampsia, eclampsia, Obstructed labour and ruptured uterus, Post partum haemorrhage, Peurperal sepsis, Obstetrical shock
XV	10	**Neonatal Paediatric emergencies** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnostic, Prognosis , Management: medical, surgical and Nursing management of • Neonatal emergencies ❑ Asphyxia Neonatarum, Pathological Jaundice in Neonates, Neonatal seizures, Metabolic disorders, Intra cranial Hemorrhage, Neonatal Sepsis, RDS/HMD (Respiratory Distress Syndrome/Hyaline Membrane Disease), Congenital disorders:- • Cyanotic heart disease, tracheo oesophageal fistula, congenital hypertropic pyloric stenosis, imperforate anus • Pediatric emergencies ❑ Dehydration, Acute broncho pneumonia, Acute respiratory distress syndrome, Poisoning, Foreign bodies, seizures, traumas, Status asthmaticus
XVI	2	**Legal and ethical issues in critical care-Nurse's role** ❑ Brain death ❑ Organ donation & Counselling ❑ Do Not Resuscitate(DNR) ❑ Euthanasia ❑ Living will
XVII	2	**Quality assurance** ❑ Standards, Protocols, Policies, Procedures ❑ Infection control; Standard safety measures ❑ Nursing audit ❑ Staffing ❑ Design of ICU/CCU

Practical

Total = 960 Hours1
Week = 30 Hours

S.No.	Deptt./Unit	No. of Week	Total Hours
3	Burns ICU	2	60 Hours
5	Medical ICU	8	240 Hours
6	Surgical ICU	12	360 Hours
9	CCU	2	60 Hours
10	Emergency Department	3	90 Hours
12	Dialysis Unit	1	30 Hours
13	Transplant Room	2	60 Hours
14	Paediatric/ NICU	2	60 Hours
	Total	**32 Weeks**	**960 Hours**

ESSENTIAL CRITICAL CARE NURSING SKILLS

I. Procedures Observed

1. CT Scan
2. MRI
3. EEG
4. Hemodialysis
5. Endoscopic Retrograde cholangio Pancreaticogram(ERCP)
6. Heart/ Neuro/GI./ Renal Surgeries

II. Procedures Assisted

1. Advanced life support system
2. Basic cardiac life support
3. Arterial line/arterial pressure monitoring/blood taking
4. Arterial blood gas
5. ECG recording
6. Blood transfusion
7. IV cannulation therapy
8. Arterial Catheterization
9. Chest tube insertion
10. Endotracheal intubations
11. Ventilation

12. Insertion of central line/cvp line
13. Connecting lines for dialysis

III. Procedure Performed

1. Airway management
    a. Application of oropharyngeal airway
    b. Oxygen therapy
    c. CPAP (Continuous Positive Airway pressure)
    d. Care of tracheostomy
    e. Endotracheal extubation
2. Cardiopulmonary resuscitation, Basic cardiac life support, ECG
3. Monitoring of critically ill patients – clinically with monitors, capillaryrefill time (CRT) assessment of jaundice, ECG.
4. Gastric lavage
5. Assessment of critically ill patients

    Identification & assessment of risk factors, Glasgow coma scale, and dolls eye movement, arterial pressure monitoring, cardiac output/pulmonary artery pressure monitoring, and detection of life threatening abnormalities
6. Admission & discharge of critically ill patients
7. Nutritional needs – gastrostomy feeds, pharyngeal feeds, jejunostomyfeeds, TPN, formula preparation & patient education.
8. Assessment of patient for alteration in blood sugar levels monitoring blood sugar levels periodically & administering insulin periodically.
9. Administration of drugs: IM, IV injection, IV cannulation & fixation of infusion pump, calculation of dosages, use of insulin syringes/ tuberculin, monitoring fluid therapy, blood administration.
10. Setting up dialysis machine and starting, monitoring and closing dialysis
11. Procedures for prevention of infections:

    Hand washing, disinfection & sterilization surveillance, and fumigation universal precautions.
12. Collection of specimen.
13. Setting, use & maintenance of basic equipment, ventilator, O2 analyzer, monitoring equipment, transducers, defibrillator, infusion& syringe pumps, centrifuge machine.

MEDICAL SURGICAL NURSING- ONCOLOGY NURSING

Placement : II Year

Hours of InstructionTheory : 150 hours
Practicals : 950 hoursTotal : 1100 hours

Course Description

This course is designed to assist students in developing expertise and in-depth understanding in the field of oncology Nursing. It will help students to develop advanced skills for nursing intervention in various oncological conditions. It will enable the student to function as oncology nurse practitioner/specialist and provide quality care. It will further enable the student to function as educator, manager, and researcher in the field of oncology nursing

Objectives

1. Explain the prevention, screening and early detection of cancer
2. Describe the epidemiology, etiology, pathophysiology and diagnostic assessment of oncological disorders of various body systems
3. Describe the psychosocial effects of cancer on patients and families.
4. Demonstrate skill in administering/assisting in various treatment modalities used for patients with cancer
5. Apply nursing process in providing holistic care to patients with cancer.
6. Apply specific concepts of pain management
7. Appreciate the care of death and dying patients and value ofbereavement support.
8. Describe the philosophy, concept and various dimensions of palliativecare
9. Appreciate the role of alternative systems of medicine in care of cancerpatients
10. Appreciate the legal & ethical issues relevant to oncology nursing
11. Recognize and manage Oncological emergencies
12. Counsel the patients with cancer and their families
13. Incorporate evidence based nursing practice and identify the areas ofresearch in the field of oncology nursing
14. Recognize the role of oncology nurse practitioner as a member of oncology team
15. Collaborate with other agencies and utilize resources in caring for cancer patients.

16. Teach and supervise nurses and allied health workers.
17. Design a layout and develop standards for management of oncologyunits/hospitals and nursing care.

Content outline

Unit	Hours.	Content
I	**4**	**Introduction** ❑ Epidemiology-Incidence, Prevalence – Global, National, State andLocal ❑ Disease burden, concept of cancer, risk factors ❑ Historical perspectives ❑ Trends and issues ❑ Principles of cancer management ❑ Roles and responsibilities of oncology nurse
II	**5**	**The Nature of Cancer** ❑ Normal cell biology ❑ The Immune system ❑ Pathological and pathophysiological changes in tissues • Biology of the cancer cell • Clone formation Transformation • Tumor stem lines • Structure of a solid tumor • Products produced by the tumor • Systemic effects of tumor growth
III	**4**	**Etiology of Cancer** ❑ Carcinogenesis, ❑ Theories of cancer causation ❑ Risk factors ❑ Carcinogens – genetic factors, chemical carcinogens, radiation, viruses, Immune system failure, rapid tissue proliferation ❑ Hormone changes, diet, emotional factors.
IV	**10**	**Diagnostic Evaluation** ❑ Health assessment: History taking, physical examination, ❑ Staging and grading of tumors, ❑ TNM Classification ❑ Common diagnostic tests • Blood investigation: Haemetological, Bio-chemical, Tumormarkers, Hormonal assay • Cytology:Fine needle aspiration cytology(FNAC) • Histopathology: Biopsy • Radiological assessment: MRI, Ultrasound, Computedtomography, Mammography, Positron emission tomography(PET), Radio nuclide imaging, Functional metabolism imaging • Endoscopies Nurses responsibilities in diagnostic measures

Unit	Hours.	Content
V	10	**Levels of prevention and care** ❑ Primary prevention – Guidelines for cancer detection, general measures, Warning signs of cancer, ❑ Self examination-Oral, Breast, Testicular ❑ Secondary prevention – early diagnosis. ❑ Screening ❑ Tertiary prevention – disability limitation, ❑ Rehabilitation :Mobility , Speech, Bowel and bladder, Ostomies etc ❑ Patient and family education, ❑ Discharge instruction, follow-up care and use of community resources.

VI	**25**	**Cancer Treatment Modalities and Nurse's Role** ❑ ***Surgery*** • Principles of surgical oncology • Current surgical strategy, • Determining surgical risk • Special surgical techniques • Pre-intra-postoperative nursing care • Acute and chronic surgical complications • Future directions and advances ❑ ***Chemotherapy*** • Principles and classification of chemotherapeutics • Pharmacology of antineoplastic drugs- Mechanism of action,Absorption, protein binding, Bio-transformation, excretion, common side effects, drug toxicity • Calculating drug doses, • Therapeutic response to chemotherapy-Tumor variables, drug resistance, • Safety precautions ❑ ***Radiation Therapy*** • Physics of radiotherapy • Types of ionizing rays • Radiation equipments:Linear accelerator, cobalt,Implants,Isotopes, • Types of therapies: Oral, Brachy therapy, tele therapy, selectrontherapy • Effects of radiation on the body tissue, • Radiation biology – cell damage hypoxic cells, alteration oftumor kinetics. • Approaches to radiation therapy – • External radiotherapy • Internal radiotherapy – unsealed, • Sealed sources. • Effectiveness of radiotherapy-Radiosensitivity, treatment effects • Complications of radiotherapy • Radiation safety: Standards of Bhaba Atomic ResearchCentre(BARC)

Unit	Hours.	Content
		❑ ***Bone Marrow Transplantation /Stem Cell Transplantation*** • Types, indications, transplantation procedure, complications and nursing managment • Types and donor sources • Preparation and care of donor and recipient • Bone marrow bank • Legal and ethical issues ❑ ***Immunotherapy (Biotherapy)*** • Concepts and principles • Classification of agents • Treatment and applications ❑ ***Gene Therapy*** • Current Concepts and practices ❑ ***Alternative and Complementary Therapies*** • Current practices
VII	**10**	❑ **Pain management:- Theories, types and** • Nature of cancer pain • Pathophysiology of pain • Pain threshold ❑ **Assessment of pain** • Principles of cancer pain control • Pharmacological: Opioid and non-opioid analgesic therapy • Patient controlled analgesia(PCA) • Other invasive techniques of pain control • Recent developments in Cancer pain ❑ **Non- Pharmacological pain relief technique-** • Complementary therapies(Music, massage, meditation,relaxation techniques, biofeed back etc) • Psychological intervention in pain control • Alternative system of medicines Role of nurse
VIII	**5**	**Palliative care** ❑ Definition and scope, philosophy ❑ Concept and elements of palliative care ❑ Global and Indian perspective of palliative care ❑ Quality of life issues ❑ Communication skill ❑ Nursing perspective of palliative care and its elements ❑ Home care ❑ Hospice care Role of nurse in palliative care

Unit	Hours.	Content
IX	2	❑ **Infection control:** • Process of infection, risk of hospitalization, nosocomial infections- prevention and control of infection in acute, longterm care facility and community based care • Standard safety measures
X	30	**Nursing Care of Patients With Specific Malignant Disorders** ❑ Malignancies of G.I. system-oral, oesophagus, stomach, rectal,liver & pancreas, care of ostomies/stoma ❑ Respiratory malignancies ❑ Genito urinary system malignancies- prostate Bladder, renaltesticular malignancies, ❑ Gynecological malignancies-cervix, uterus, ovary ❑ Hematological malignancies-Lymphomas, Leukemias. ❑ Malignancies of musculoskeletal system ❑ Endocrine malignancies ❑ Skin ❑ Head and Neck -brain tumors ❑ Other malignancies – Breast cancer, AIDS related Malignancies (Kaposi's Sarcoma)
XI	10	**Paediatric malignancies** ❑ Leukemia, Lymphoma, Neuro- blastoma ❑ Wilm's tumor, Soft tissue sarcoma, Retinoblastoma ❑ Nursing Management of children with Paediatric Malignancies
XII	15	**Nursing Management of Physiological Conditions and SymptomsOf Cancer Patient** ❑ Nutrition: - effects of cancer on nutritional Status and its consequences:-Anemia, Cachexia, Xerostomia, mucositis, Dysphagia , nausea and vomiting, constipation, diarrhoea, electrolyte imbalances, taste alterations ❑ Impaired mobility: Decubitus ulcer, pathologic fractures, thrombophlebitis, pulmonary embolism, contractures, footdrop **Other symptoms** ❑ Dyspepsia & hiccup, dyspnoea ❑ intestinal obstruction, ❑ Fungating wounds ❑ Anxiety & depression, insomnia ❑ Lymph edema **Impact of cancer on sexuality:** ❑ Effects of radiotherapy/ chemotherapy/surgery on sexuality of thecancer patient ❑ Nursing management of cancer patients experiencing sexualdysfunction ❑ Sexual counseling

Unit	Hours.	Content
XIII	**10**	**Cancer Emergencies** ❑ Disseminated intravascular coagulation(DIC), ❑ Malignant pleural effusion ❑ Neoplastic cardiac tamponade and septic shock spinal cordcompression ❑ Superior venacava syndrome ❑ Metabolic emergency: hyper and hypo calcemia ❑ Surgical emergency ❑ Urological emergency ❑ Hemorrhage ❑ Organ obstruction ❑ Brain metastasis ❑ Nurses role in managing oncologic emergencies
XIV	**8**	**Psycho-Social Aspects of Nursing Care** ❑ Psychological responses of patients with cancer ❑ Psychosocial assessment – ❑ Crisis intervention, coping mechanisms ❑ Stress management, spiritual/cultural care and needs ❑ Counseling: individual and family ❑ Maximizing quality of life of patient and family **Ethical, moral and legal issues-** ❑ End of life care ❑ Grief and grieving process ❑ Bereavement support ❑ Care of Nurses who care for the dying.
XV	**2**	**Layout and Design of an oncology institution/ ward, OPD, chemotherapy unit, Bone marrow transplantation unit, Pain clinic etc** ❑ Practice Standards of oncology nursing • Policies and Procedures ❑ Establishing Standing orders and Protocols **Quality Assurance Programme in oncology units** ❑ Nursing audit

Clinical Experience

S. No.	Deptt./ Unit	No. of Week	Total Hours
1	Medical Oncology ward	6	180 Hours
2	Surgical Oncology ward	6	180 Hours
3	Bone marrow transplantation Unit	2	60 Hours
4	Operation Theatre	2	60 Hours
5	Radiotherapy Unit	2	60 Hours
6	Chemotherapy Unit	4	120 Hours
7	Out patient department and pain clinic	2	60 Hours
8	Pediatric Oncology ward	2	60 Hours
9	Palliative Care ward	2	60 Hours
10	Community oncology	2	60 Hours
11	Hospice	1	30 Hours
12	Other field visits	1	30 Hours
	Total	**32 Weeks**	**960 Hours**

Procedures Observed

1. CT Scan
2. MRI
3. PET Scan(Positron Emission Tomography)
4. Ultra sound
5. Mammography
6. Radio Nuclide Imaging
7. Bone Scan
8. Thyroid Function Test
9. Functional and Metabolic Imaging
10. Transportation of radioactive materials
11. Others

Procedures Assisted

1. IV cannulation – Open method
2. Chemotherapy
3. Radiotherapy – Brachytherapy – Low Density Radiation, High DensityRadiation.
4. Interstitial implantation
5. Bio-therapy and Gene therapy
6. Teletherapy – Treatment planning
7. Bone marrow aspiration and biopsy
8. Biopsy – tissue
9. FNAC – Fine Needle Aspiration Cytology and biopsy

10. Advance Cardiac life support
11. Endotracheal intubation
12. Defibrillation Ventilation
13. Tracheostomy
14. Thoracentesis
15. Paracentesis
16. Lumbar Puncture
17. Arterial Blood Gas
18. Nerve Block
19. Chest tube insertion
20. Intercostal drainage
21. CVP monitoring

Procedure Performed

1. Screening for cancer
2. Assessment of pain
3. Assessment of Nutritionsl status
4. Care of Tracheostomy
5. Endotracheal intubation
6. Gastric gavage
7. Pap smear
8. IV cannulation
9. Care of surgical flaps
10. Care of ostomies
11. Blood transfusion and component therapy
12. Counseling
13. Practice standard safety measures
14. Care of dead body and mortuary formalities

Other procedures

(As per the institutional protocol):

1. Alternative therapies

MEDICAL SURGICAL NURSING- NEUROSCIENCES NURSING

Placement : II Years

Hours of InstructionTheory – 150 Hours
Practical- 950 HoursTotal : 1100 Hours

Course Description

This course is designed to assist students in developing expertise and in-depth knowledge in the field of neurology and neurosurgical Nursing. It will help students to develop advanced skills for nursing intervention in caring for patients with neurological and neurosurgical disorders. It will enable the student to function as neuroscience nurse practitioner/ specialist. It will further enable the student to function as educator, manager and researcher in the field of neurology and neurosurgical Nursing.

Objectives

At the end of the course the students will be able to

1. Appreciate trends and issues related to neurology and neurosurgicalNursing.
2. Review the anatomy and physiology of nervous system
3. Describe the epidemiology, etiology, pathophysiology and diagnostic assessment of patients with neurological and neurosurgical disorders
4. Perform neurological assessment and assist in diagnostic procedures
5. Describe the concepts and principles of neuroscience nursing
6. Describe the various drugs used in neurosciences and nurses responsibility
7. Assist in various therapeutic and surgical procedures in neuroscience nursing
8. Demonstrate advance skills/competence in managing patients with neurological and neurosurgical disorder following nursing process approach
9. Identify psychosocial problems of patients with disabilities and assist patients and their family to cope with emotional distress, spiritual, grief and anxiety
10. Participate in preventive, promotive and rehabilitative services for neurological and neurosurgical patients.
11. Explain the legal and ethical issues related to brain death, organ transplantation and practice of neuroscience nursing
12. Incorporate evidence based nursing practice and identify the areas of research in the field of neuroscience nursing

13. Organise and conduct inservice education program for nursingpersonnel.
14. Develop standards of care for quality assurance in neuroscience nursing practice
15. Identify the sources of stress and manage burnout syndrome among health care providers.
16. Teach and supervise nurses and allied health workers.
17. Plan and develop physical layout of neuro intensive care unit

Course Content

Unit	Hours	Content
I	**5**	**Introduction** ❑ Introduction to neuroscience(neurological and neurosurgical)nursing • History-Development in neurological and neurosurgicalnursing, Service & education • Emerging trends and issues in neurology and neuro surgeryand its implication to nursing. • neurological and neurosurgical problems – • Concepts, principles and nursing perspectives • Ethical and legal issues • Evidence based nursing and its application in neurological andneurosurgical nursing
II	**5**	**Epidemiology** ❑ Major health problems- ❑ Risk factors associated with neurological conditions- Hereditary, Psychosocial factors, smoking, alcoholism, dietary habits, culturaland ethnic considerations, occupational and infections. ❑ Health promotion, disease prevention, life style modification andits implications to nursing Alternate system of medicine/complementary therapies
III	**10**	**Review of Anatomy and physiology** ❑ Embryology ❑ Structure and functions of Nervous system- CNS, ANS, cereberalcirculation , cranial and spinal nerves and reflexes, motor and sensory functions ❑ Sensory organs

Unit	Hours	Content
IV	**15**	**Assessment and diagnostic measures** ❑ Assessment • History taking • Physical assessment, psychosocial assessment • Neurological assessments, Glasgow coma scale interpretation &its relevance to nursing. • Common assessment abnormalities ❑ Diagnostic measures • Cerebro spinal fluid analysis • Radiological studies-Skull and spine X-ray Cerebral Angiography, CT Scan, Single Photon Emission Computer Tomography(SPECT), MRI (Magnetic Resonance Imaging), MRA, MRS, Functional MRI, Myelography, PET (Positron Emission Test), Interventional radiology. • Electorgraphic studies- Electro encephalo graphy, MEG, EMG, video EEG, • Nerve conduction studies-Evoked potentials, visual evoked potentials, brain stem auditory evoked potentials, somatosensory evoked potentials • Ultrasound studies-Carotid duplex, transcranial Doppler sonography, • Immunological studies • Biopsies – muscle, nerve and Brain. Interpretation of diagnostic measures Nurse's role in diagnostic tests
V	**5**	**Meeting Nutritional needs of neurological patients** ❑ Basic nutritional requirements ❑ Metabolic changes following injury and starvation ❑ Nutritional assessment ❑ Common neurological problems that interfere with nutrition andstrategies for meeting their nutritional needs ❑ Special metabolic and electrolyte imbalances ❑ Chronic fatigue syndrome
VI	**5**	**Drugs used in neurological and neurosurgical disorders** ❑ Classification ❑ Indications, contraindications, actions and effects, toxic effects Role of nurse

Unit	Hours	Content
VII	10	**Traumatic conditions.** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnosis, Prognosis, Management: medical, surgical and Nursing management of • Cranio cerebral injuries. • Spinal & Spinal cord injuries. • Peripheral nerve injuries. • Unconsciousness
VIII	10	**Cerebro vascular disorders.** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnosis, Prognosis , Management: medical, surgical and Nursing management of • Stroke & arterio venous thrombosis. • Haemorrhagic embolus. • Cerebro vascular accidents. • Intracranial aneurysm. • Subarchnoid Haemorrhage. • Arterio venous fistula. • Brain tumours ❑ Diseases of cranial nerves;Trigiminal neuralgia, Facial palsy, Bulbar palsy.
IX	10	**Degenerating and demyelinating disorders** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnostic, Prognosis , Management: medical, surgical and Nursing management of • Motor neuron diseases. • Movement disorders- Tics, dystonia, chorea, wilson's disease,essential tremors • Dementia. • Parkinson's disease. • Multiple sclerosis. • Alzemier's
X	10	**Neuro infections** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnostic, Prognosis , Management: medical, surgical and Nursing management of Neuro infections • Meningitis-types • Encephalitis. • Poliomyelitis. • Parasitic infections. • Bacterial infections • Neurosyphilis. • HIV & AIDS. • Brain abscess.

Unit	Hours	Content
XI	10	**Paroxysmal disorders.** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnosis, Prognosis , Management: medical, surgical and Nursing management of • Epilepsy and seizures. • Status epilepticus. • Syncope. • Menier's syndrome. • Cephalgia.
XII	10	**Developmental disorders.** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnostic, Prognosis , Management: medical, surgical and Nursing management of • Hydrocephalus. • Craniosynostosis. • spina bifida- Meningocele, Meningomyelocele encephalocele • syringomyelia. • Cerebro vascular system anomalies. • Cerebral palsies. • Down's syndrome
XIII	10	**Neuro muscular disorders.** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnostic, Prognosis , Management: medical, surgical and Nursing management of • Polyneuritis – G B Syndrome. • Muscular dystrophy. • Myasthenia gravis. • Trigeminal neuralgia. • Bell's palsy. • Menier's disease • Carpal tunnel syndrome • Peripheral neuropathies
XIV	5	**Neoplasms – surgical conditions.** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnostic, Prognosis , Management: medical, surgical and Nursing management of • Space occupying lesions -types • Common tumors of CNS,
XV	5	**Other disorders** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnostic, Prognosis , Management: medical, surgical and Nursing management of ❑ Metabolic disorders- diabetes, insipidus, metabolicencephalopathy ❑ Sleep disorders ❑ Auto immune disorders- multiple sclerosis, inflammatory myopathies

Unit	Hours	Content
XVI	10	**Neuro emergencies** ❑ Causes, pathophysiology, Clinical types, Clinical features, diagnostic, Prognosis , Management: medical, surgical and Nursing management of • Increased intracranial pressure • Unconscious • Herniation syndrome • Seizures • Severe head injuries • Spinal injuries • Cerebro vascular accidents
XVII	5	**Rehabilitation**. ❑ Concept and Principles of Rehabilitation. ❑ Factors affecting quality of life and coping ❑ Rehabilitation in acute care setting, and following stroke, head injury and degenerative disorders of brain ❑ Physiotherapy. ❑ Counselling ❑ Care giver's role **Speech & Language.-**Neurogenic communication disorders, Speechtherapy
XVIII	5	**Ethical and legal issues in neuroscience nursing** ❑ Brain death and organ transplantation ❑ Euthanasia ❑ Negligence and malpractice ❑ Nosocomial infections
XIX	5	❑ Quality assurance in neurolgical nursing practice ❑ Role of advance practitioner in neurological nursing ❑ Professional practice standards ❑ Quality control in neurologic nursing ❑ Nursing audit ❑ Neuro ICU • Philosophy, aims and objectives • Policies, staffing pattern, design and physical plan of neuro ICU • Team approach, functions • Psychosocial aspects in relation to staff and clients of neuroICU, • In-service education

Practical **Total = 960 Hours1 Week = 30 Hours**

S.No.	AREA OF POSTING	No. of Week	Total Hours
1	O.P.D.	2	60
2	Casualty	2	60
3	Diagnostics	2	60
4	Neuro psychiatry	1	30
5	Neuro Medical wards	4	120
6	Paediatric Neuro ward	2	60
7	Neuro surgical wards	4	120
8	Head Injury ward	3	90
9	ICU- neuro medicine	4	120
10	I.C.U.- neuro surgical	4	120
11	Rehabilitation	2	60
12	Operation Theatre	2	60
	Total	**32 Weeks**	**960 Hours**

ESSENTIAL NEURO NURSING SKILLS

I. Procedures Observed

1. CT scan
2. MRI
3. PET
4. EEG
5. EMG
6. Sleep pattern studies/Therapy
7. Radiographical studies
8. Neuro surgeries
9. Nerve conduction studies
10. Ultrasound studies
11. Any other

II. Procedures Assisted

1. Advanced Cardiac life support
2. Lumbar Puncture
3. Biopsies – muscle, nerve and Brain
4. Arterial Blood Gas
5. ECG Recording
6. Blood transfusion
7. IV cannulation – open method

8. Endotracheal intubation
9. Ventilation
10. Tracheostomy
11. ICP monitoring
12. Gama Knife
13. Cereberal angiography
14. Myelography
15. Neuro surgeries

III. Procedures Performed:

1. Airway management
   a. Application of Oro Pharyngeal Airway
   b. Care of Tracheostomy
   c. Conduct Endotracheal Intubation
   d. use of AMBU bag, artificial respirators
   e. Setting of Ventilators and Care of patients on ventilators
2. Cardio Pulmonary Resuscitation -Defibrillation
3. Neurological assessment -Glasgow coma scale
4. Gastric Lavage
5. IV Cannulation
6. Administration of emergency IV Drugs, fluid
7. Care of patients with incontinence, bladder trainingCatheterization
8. Care of patients on traction related to the neurological conditions
9. Blood Administration.
10. Muscle strengthening exercises
11. Guidance and counseling
12. Monitoring – management and care of monitors.

MEDICAL SURGICAL NURSING- NEPHRO-UROLOGY NURSING

Placement : II Year

Hour of InstructionTheory : 150 Hours Practical : 950 HoursTotal : 1100 Hours

Course Description

This course is designed to assist students in developing expertise and in-depth understanding in the field of Nephro and urological Nursing. It will help students to develop advanced skills for nursing intervention in various nephro and urological conditions. It will enable the student to function as nephro and urology nurse practitioner/specialist and provide quality care. It will further enable the student to function as educator, manager, and researcher in the field of nephro and urology nursing

Objectives

At the end of the course the students will be able to:

1. Appreciate trends and issues related to **nephro and urological** nursing
2. Describe the epidemiology, etiology, pathophysiology and diagnostic assessment of **nephro and urological** conditions
3. Perform physical, psychosocial & spiritual assessment
4. Assist in various diagnostic, therapeutic and surgical interventions
5. Provide comprehensive nursing care to patients with **nephro and urological conditions**
6. Describe the various drugs used in **nephro and urological** conditionsand nurses responsibility
7. Demonstrate skill in handling various equipments/gadgets used forpatients with **nephro and urological** conditions
8. Appreciate team work & coordinate activities related to patient care.
9. Practice infection control measures.
10. Identify emergencies and complications & take appropriate measures
11. Assist patients and their family to cope with emotional distress, grief,anxiety and spiritual needs
12. Discuss the legal and ethical issues in **nephro and urological** nursing
13. Identify the sources of stress and manage burnout syndrome among health care providers

14. Appreciate the role of alternative system of medicine in the care of patient
15. Incorporate evidence based nursing practice and identify the areas ofresearch in the field of **nephro and urological** nursing
16. Teach and supervise nurses and allied health workers.
17. Design a layout of kidney transplant unit and dialysis unit
18. Develop standards of nephro urological nursing practice

Course Content

Unit	Hours	Content
I	**5**	**Introduction** ❑ Historical development: trends and issues in the field of nephroand urological nursing. ❑ nephro and urological problems ❑ Concepts, principles and nursing perspectives ❑ Ethical and legal issues ❑ Evidence based nursing and its application in nephro andurological nursing(to be incorporated in all the units)
II	**5**	**Epidemiology** ❑ Major health problems- urinary dysfunction, urinary tract infections, Glomuerular disorders, obstructive disorders ad other urinary disorders ❑ Risk factors associated with nephro and urological conditions conditions- Hereditary, Psychosocial factors, smoking, alcoholism, dietary habits, cultural and ethnic considerations ❑ Health promotion, disease prevention, life style modification and its implications to nursing Alternate system of medicine/complementary therapies
III	**5**	**Review of anatomy and physiology of urinary system** ❑ Embryology ❑ Structure and functions ❑ Renal circulation ❑ Physiology of urine formation ❑ Fluid and electrolyte balance ❑ Acid base balance ❑ Immunology specific to kidney

IV	**20**	**Assessment and diagnostic measures** ❑ History taking ❑ Physical assessment, psychosocial assessment ❑ Common assessment abnormalities-dysurea, frequency, enuresis, urgency, hesistancy, hematuria, pain, retention, burning on urination, pneumaturia, incontinence, nocturia, polyurea, anuria, oliguria, ❑ Diagnostic tests-urine studies, blood chemistry, radiological procedures-KUB, IVP,nephrotomogram, retrograde pylogram, renal arteriogram, renalultrasound, CT scan, MRI, cystogram, renal

Unit	Hours	Content
		scan, biopsy, endoscopy-cystoscopy, urodynamics studies-cystometrogram, urinary flow study, sphincter electromyography, voiding pressure flow study, videourodynamics, Whitaker study Interpretation of diagnostic measures Nurse's role in diagnostic tests
V	**5**	**Renal immunopathy/Immunopathology** ❑ General Concept of immunopathology ❑ Immune mechanism of glomerual vascular disease ❑ Role of mediater systems in glomerula vascular disease
VI	**15**	**Urological Disorders and Nursing Management** ❑ Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical , surgical and nursing management of ❑ Urinary tract infections- pyelonephritis, lower urinary tractinfections, ❑ Disorders for ureters, bladder and urethera ❑ Urinary tract infections- ❑ Urinary dysfunctions- urinary retention, urinary incontinence, urinary reflux, ❑ Bladder disorders- neoplasms, calculi, neurogenic bladder, trama,congenital abnormalities ❑ Benign prostrate hypertrophy(BPH) ❑ Ureteral disorders: ureteritis, ureteral trauma, congenitalanomalies of ureters ❑ Uretheral disorders- tumours, trauma, congenial anomalies of ureters,
VII	**25**	**Glomueral disorders and nursing management** ❑ Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical , surgical and nursing management of ❑ Glomueralo nephritis- chronic, acute , nephritic syndrome ❑ Acute Renal failure and chronic renal failure. ❑ Renal calculi ❑ Renal tumours-benign and malignant ❑ Renal trauma ❑ Renal abscess ❑ Diabetic nephropathy ❑ Vascular disorders ❑ Renal tuberculosis ❑ Polycystic ❑ Congenital disorders ❑ Hereditary renal disorders

VIII	**10**	❑ Management of Renal emergencies ❑ Anuria ❑ Acute Renal failure ❑ Poisoning ❑ Trauma ❑ Urine retention

Unit	Hours	Content
		❑ Acute graft rejection ❑ Hematuria ❑ Nurse's role
IX	**10**	**Drugs used in urinary disorders** ❑ Classification ❑ Indications, contraindications, actions and effects, toxic effects ❑ Role of nurse
X	**10**	**Dialysis** ❑ Dialysis- Historical, types, Principles, goals • Hemodialysis- vascular access sites- temporary and permanent • Peritoneal dialysis ❑ Dialsyis Procedures- steps, equipments, maintenance, ❑ Role of nurse- pre dialysis, intra and post dialysis ❑ Complications- ❑ Counseling ❑ patient education ❑ Records and reports
XI	**10**	❑ Kidney transplantation ❑ Nursing management of a patient with Kidney transplantation ❑ Kidney transplantations- a historical review ❑ Immunology of graft rejections ❑ The recipient of a renal transplant ❑ Renal preservations ❑ Human Leucocytic Antigen(HLA) typing matching and crossmatching in renal transplantation ❑ Surgical techniques of renal transplantations ❑ Chronic renal transplant rejection ❑ Complication after KTP: Vascular and lymphatic, Uroloical, cardiovascular, liver and neurological, infectious complication ❑ KTP in children and management of pediatric patient with KTP ❑ KTP in developing countries ❑ Results of KTP ❑ Work up of donor and recipient for renal transplant ❑ Psychological aspect of KTP and organ donations ❑ Ethics in transplants ❑ Cadaveric transplantation
XII	**5**	❑ Rehabilitation of patient with nephrological problems ❑ Risk factors and prevention ❑ Rehabilitation of patients on dialysis and after kidney transplant ❑ Rehabilitation of patients after urinary diversions ❑ Family and patient teaching

XIII	**10**	**Pediatric urinary disorders** ❑ Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical , surgical and nursing management of children with Renal Diseases -UTI, ureteral reflux, glomerulo nephritis, nephrotic syndrome infantile nephrosis, cystic kidneys, familial factors in renal diseases in childhood, Haemolytic uraemic

Unit	Hours	Content
		syndrome. Benign recurrent haemturia, nephropathy, wilms 'tumour
XIV	**5**	**Critical care units- dialysis , KTP unit** ❑ Philosophy, aims and objectives ❑ Policies, staffing pattern, design and physical plan of Dialysis andKTP units ❑ Team approach, functions ❑ Psychosocial aspects in relation to staff and clients of ICU, dialysisunit ❑ In-service education ❑ Ethical and legal issues
XV	**5**	❑ Quality assurance in nephrological nursing practice ❑ Role of advance practioner in nephrological nursing ❑ Professional practice standards ❑ Quality control in nephrological nursing ❑ Nursing audit

Practicals

Total = 960 Hours1 Week = 30 Hours

S. No.	Deptt./ Unit	No. of Week	Total Hours
1	Nephrology Ward	6	180 Hours
2	Pediatrics	2	60 Hours
3	Critical Care Unit	2	60 Hours
4	Urology Ward	6	180 Hours
5	Dialysis Unit	4	120 Hours
6	Kidney Transplantation Unit	2	60 Hours
7	URO OT	2	60 Hours
8	Emergency Wards	2	60 Hours
9	Uro Nephro OPDs	4	120 Hours
10	Diagnostic Labs	2	60 Hours
	Total	**32 Weeks**	**960 Hours**

Procedures observed

I. Procedures Observed

1. CT Scan
2. MRI
3. Radiographic studies
4. Urodynamics
5. Hemodialysis
6. Renal Surgeries

II. Procedures Assisted

1. Blood transfusion
2. I V cannulation therapy
3. Arterial Catheterization
4. Insertion of central line/cvp line
5. Connecting lines for dialysis
6. Peritoneal dialysis
7. Renal biopsy
8. Endoscopies- Bladder, urethra

III. Procedure Performed

1. Health assessment
2. Insertion of uretheral and suprapubic catheters
3. Urine analysis

4. Catheterisation
5. Peritoneal dialysis
6. Bladder irrigation
7. Care of ostomies
8. Care of urinary drainage
9. Bladder training
10. Care of vascular access
11. Setting up dialysis machine and starting, monitoring andclosing dialysis
12. Procedures for prevention of infections:
13. Hand washing, disinfection & sterilization surveillance, andfumigation universal precautions.
14. Collection of specimen.
15. Administration of drugs: IM, IV injection, IV cannulation & fixation of infusion pump, calculation of dosages, blood administration. monitoring -fluid therapy, electrolyte imbalance,
16. Nutritional needs , diet therapy & patient education.
17. Counselling

IV. OTHER PROCEDURES:

MEDICAL SURGICAL NURSING -RTHOPEDIC NURSING

Placement : II
Year

Hours of InstructionTheory : 150 Hours Practical : 950 HoursTotal : 1100 Hours

Course Description

This course is designed to assist students in developing expertise and in-depth understanding in the field of orthopedic nursing. It will help students to develop advanced skills for nursing intervention in various orthopedic conditions. It will enable the student to function as orthopedic nurse practitioner/specialist providing quality care. It will further enable the student to function as educator, manager, and researcher in the field oforthopedic nursing.

Objectives

At the end of the course the students will be able to:

1. Appreciate the history and developments in the field of orthopedic nursing
2. Identify the psycho-social needs of the patient while providing holistic care.
3. Perform physical and psychological assessment of patients with orthopedic conditions and disabilities.
4. Describe various disease conditions and their management
5. Discuss various diagnostic tests required in orthopedic conditions
6. Apply nursing process in providing care to patients with orthopedicconditions and those requiring rehabilitation.
7. Recognize and manage orthopedic emergencies.
8. Describe recent technologies and treatment modalities in the management of patients with orthopedic conditions and those requiring rehabilitation.
9. Integrate the concept of family centered, long term care and community based rehabilitation to patients with orthopedic conditions.
10. Counsel the patients and their families with orthopedic conditions
11. Describe various orthotic and prosthetic appliances
12. Appreciate the legal and ethical issues pertaining to patients with orthopedic conditions and those requiring rehabilitation.
13. Appreciate the role of alternative system of medicine in care of patients with orthopedic conditions

14. Incorporate evidence based nursing practice and identify the areas ofresearch in the field of orthopedic nursing.
15. Recognize the role of orthopedic nurse practitioner and as a memberof the orthopedic and rehabilitation team.
16. Teach orthopedic nursing to undergraduate students and in-servicenurses.
17. Prepare a design and layout of orthopedic and rehabilitative units.

Course Content

Unit	Hours	Content
I	5	**Introduction** ❑ Historical perspectives – History and trends in orthopedic nursing ❑ Definition and scope of orthopedic nursing ❑ Anatomy and physiology of Musculo-skeletal system ❑ Posture, Body landmarks Skeletal system Muscular system.Nervous system - Main nerves ❑ Healing of - Injury, bone injury, ❑ Repair of ligaments ❑ Systemic response to injury ❑ Ergonomics, Body mechanics, biomechanical measures ❑ Orthopedic team
II	8	**Assessment of Orthopedic Patient** ❑ Health Assessment: History, physical examination-Inspection,palpation, movement, Measurement, muscle strength Testing. ❑ Diagnostic studies – Radiological studies, Muscle enzymes, serologic studies
III	10	**Care of patients with devices** ❑ Splints, braces, various types of plaster cast ❑ Various types of tractions, ❑ Various types of orthopedic beds and mattresses ❑ Comfort devices ❑ Implants in orthopedic ❑ Prosthetics and Orthotics

IV	**15**	**Injuries** ***Trauma & Injuries*** ❑ Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management, medical surgical and nursing management of : • Early management of Trauma • Fractures • Injuries of the ❑ Shoulder and arm ❑ Elbow, fore arm, wrist, hand ❑ Hip, thigh, knee, leg, ankle, foot ❑ Spine

Unit	Hours	Content
		❑ Head injury ❑ Chest injury • Polytrauma • Nerve injuries • Vascular injuries • Soft tissue injuries • Sports injuries • Amputation
V	**8**	**Infections of Bones and Joints** ❑ Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management, medical surgical and nursing management of : • Tuberculosis • Osteomyelitis • Arthritis • Leprosy
VI	**5**	**Bone Tumours** ❑ Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management, medical surgical and nursingmanagement of: • Bone tumors – Benign, Malignant and metastatic • Different types of therapies for tumors
VII	**10**	**Deformities** ❑ Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis – medical surgical and nursing management of:Scoliosis, Kyphosis,Lordosis ❑ Congenital disorders: Congenital dislocation of hip(CDH), Dislocation of patella, knee, ❑ Varus and valgus deformities, ❑ Deformities of digits, ❑ Congenital torticollis. ❑ Meningocele, meningomyelocele, spina bifida, ❑ Chromosomal disorders. ❑ Computer related deformities
VIII	**5**	**Disorders of the spine** ❑ Intervertebral disc prolapse, Fracture of the spine ❑ Low back disorder – Low back pain, PND, spinal stenosis,spondylosis

IX	**5**	**Nutritional/Metabolic and Endocrine Disorders** ❑ Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, medical surgical and nursing managementof: • Rickets, • Scurvy, • Hyper vitaminosis A and D, • Osteomalacia,

Unit	Hours	Content
		• Osteoporosis • Paget's disease, • gout, • Gigantism, • Dwarfism, • Acromegaly. • Therapeutic diets for various orthopedic disorders
X	**8**	**Neuro-Muscular Disorders:** ❑ Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, medical surgical and nursing managementof: • Poliomyelitis, Cerebral Palsy • Myasthenia gravis • Spina bifida. • Peripheral nerve lesion, • Paraplegia, Hemiplegia, Quadriplegia. • Muscular dystrophy
XI	**8**	**Chronic/Degenerative Diseases of Joints and AutoimmuneDisorders:** ❑ Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis – medical surgical and nursing managementof: • Osteo Arthritis • Rheumatoid Arthritis • Ankylosing spondylitis. • Spinal disorders. • Systemic Lupus Erythematosus
XII	**5**	**Orthopedic Disorders in Children**: ❑ General and special consideration on pediatric orthopedics ❑ Genetic disorders ❑ Congenital anomalies ❑ Growth disorders ❑ Genetic counseling ❑ Nurses role in genetic counseling
XIII	**5**	**Geriatric Problems** ❑ Geriatric population, types of disabilities, causes, treatment and Management – Hospitalization, rest, physiotherapy, involvement offamily members, social opportunities. ❑ Care at home – involvement of family and community, follow up care and rehabilitation

XIV	**6**	**Pharmacokinetics** ❑ Principles of drug administration ❑ Analgesics and anti inflammatory agents ❑ Antibiotics, Antiseptics, ❑ Drugs used in orthopedics and neuromuscular disorders ❑ Blood and blood components ❑ Care of drugs and nurses role

Unit	Hours	Content
XV	30	**Nurses Role in Orthopedic Conditions** ❑ Gait analysis ❑ Urodynamic studies ❑ Prevention of physical deformities ❑ Alteration of body temperature regulatory system and immunesystems ❑ Immobilization – cast, splints, braces and tractions ❑ Prevention and care of problems related to immobility ❑ Altered sleep patterns ❑ Impaired communication ❑ Self care and activities of daily living ❑ Bladder and bowel rehabilitation ❑ Sensory function rehabilitation ❑ Psychological reaction related to disabilities and disorders. ❑ Coping of individual and family with disabilities and disorders ❑ Maintaining sexuality ❑ Spirituality – A rehabilitative prospective **Orthopedic Reconstructive Surgeries** ❑ Replacement surgeries – Hip, Knee, Shoulder ❑ Spine surgeries ❑ Grafts and flaps surgery ❑ Deformity correction. **Physiotherapy** ❑ Concepts, Principles, purpose, • Mobilization – Exercises: types, re-education in walking: Crutch walking, wheel chair, Transfer techniques, • Types of gaits: Non-weight bearing, partial weight bearing, four point crutch, tripoid, walking with sticks, calipers • Forms of therapies: Hydrotherapy, electrotherapy, wax bath,heat therapy, ice, helio therapy, radiant heat, • Chest physiotherapy
XVI	8	**Rehabilitation** ❑ Principles of rehabilitation, definition, philosophy, process, ❑ Various types of therapies ❑ Special therapies and alternative therapies ❑ Rehabilitation counseling ❑ Preventive and restorative measures. ❑ Community based rehabilitation (CBR) ❑ Challenges in rehabilitation. ❑ Role of the nurse in rehabilitation, ❑ Legal and ethical issues in rehabilitation nursing ❑ Occupational therapy

XVII	**5**	**National Policies and Programmes** ❑ National programmes for rehabilitation of persons with disability - National Institutes, artificial limbs manufacturing Corporation, District Rehabilitation Centers and their schemes ❑ Regional rehabilitation centers etc.

Unit	Hours	Content
		❑ Public policy in rehabilitation nursing ❑ The persons with disabilities act 1995, ❑ Mental rehabilitation and Multiple disabilities act 1992, ❑ The National Trust Rules 1999 and 2000 ❑ Rehabilitation Council of India ❑ Legal and ethical aspects in orthopedic nursing ❑ Rehabilitation health team and different categories of teammembers.
XVIII	**4**	**Quality assurance** ❑ Standards, Protocols, Policies, Procedures ❑ Nursing audit ❑ Staffing ❑ Design of orthopedic, physiotherapy and rehabilitation unit

Practicals

1. Clinical practice in Orthopedic, physiotherapy and Rehabilitation Units.
2. Application of tractions and plaster casts and removal of tractions andplaster casts and other appliances.
3. Apply Theories and Nursing Process in the management of patientswith orthopedic conditions.
4. Provide various types of physical and rehabilitative therapies
5. Provide health education on related disease conditions.
6. Unit management and plan - designing

Clinical Experience

Total = 960 Hours1
Week = 30 Hours

S. No.	Deptt./Unit	No. of Week	Total Hours
1	Orthopedic Ward	8	240 Hours
2	Orthopedic Operation theatre	4	120 Hours
3	Neurosurgical Ward	2	60 Hours
4	Orthopedic O.P.D.	4	120 Hours
5	Casualty/Emergency and Trauma	4	120 Hours
6	Rehabilitation Units	2	60 Hours
7	Physiotherapy Unit	4	120 Hours
8	Paediatric /paediatric surgery unit	2	60 Hours
9	Field Visit	2	60 Hours
	Total	**32 Weeks**	**960 Hours**

Procedures Observed

1. X Ray
2. Ultrasound
3. MRI
4. C T Scan/bone scan
5. Arthroscopy
6. Electrothermally – assisted capsule shift or ETAC (Thermalcapsulorrhaphy)
7. Fluroscopy
8. Electromyography
9. Myelography
10. Discography
11. Others

Procedures Assisted

1. Blood Transfusion
2. IV cannulation and therapy
3. Ventilation
4. Various types of tractions
5. Orthopedic surgeries – Arthrocentesis, Arthroscopy, Bone lengthening, Arthrodesis, grafting, Fractures fixation, reconstructive, reimplantation, replantation, spinal decompression, transplantation of bone, muscle or articular cartilage, autografting, allografting.
6. Injection – Intra articular, intra osseous.
7. Advance Life Support

Peocedures Performed

1. Interpretation of X ray films.
2. Application and removal of splints, casts, and braces.
3. Care of tractions – skin and skeletal traction, pin site care.
4. Cold therapy.
5. Heat therapy
6. Hydrotherapy
7. Therapeutic exercises
8. Use of TENS (Transcutaneous electrical nerve stimulation)
9. Techniques of transportation
10. Crutch walking, walkers, wheel chair.
11. Use of devices for activities of daily living and prevention of deformities.
12. Administration of drugs: IV injection, IV cannulation, and Blood transfusion.
13. Procedures for prevention of infections: disinfection and sterilization,surveillance, fumigation.
14. Special skin/ part preparations for orthopedic surgeries.
15. Surgical dressings – Debridement.
16. Bladder and bowel training

MEDICAL SURGICAL NURSING - GASTRO ENTEROLOGY NURSING

Placement : II Year

Hours of Instruction
Theory : 150 hrs.
Practical : 950 hrs.
Total : 1100 hrs.

Course Description

This course is designed to assist students in developing expertise and in-depth understanding in the field of gastro enterology Nursing. It will help students to develop advanced skills for nursing intervention in various gastro enterology conditions. It will enable the student to function as gastro enterology nurse practitioner/specialist and provide quality care. It will further enable the student to function as educator, manager, and researcher in the field of gastro enterology nursing

Objectives

At the end of the course the students will be able to

1. Appreciate trends and issues related to gastro enterology nusing
2. Describe the epidemiology, etiology, pathophysiology and diagnostic assessment of gastrointestinal conditions
3. Participate in national health programs for health promotion, prevention and rehabilitation of patients with gastrointestinal conditions
4. Perform physical, psychosocial & spiritual assessment
5. Assist in various diagnostic, therapeutic and surgical procedures
6. Provide comprehensive care to patients with gastrointestinal conditions
7. Describe the various drugs used in gastrointestinal conditions and nurses responsibility
8. Demonstrate skill in handling various equipments/gadgets used forpatients with gastrointestinal conditions
9. Appreciate team work & coordinate activities related to patient care.
10. Practice infection control measures.
11. Identify emergencies and complications & take appropriate measures
12. Assist patients and their family to cope with emotional distress, grief,anxiety and spiritual needs
13. Discuss the legal and ethical issues in GE nursing

14. Identify the sources of stress and manage burnout syndrome among health care providers
15. Appreciate the role of alternative system of medicine in care of patient
16. Incorporate evidence based nursing practice and identify the areas ofresearch in the field of gastrointestinal nursing
17. Teach and supervise nurses and allied health workers.
18. Design a layout of Gastro entrology intensive care unit (GEICU) , livercare/transplant unit

Course Content

Unit	Hours	Content
I	**5**	**Introduction** ❑ Historical development: trends and issues in the field of gastro enterology. ❑ Gastro enterological problems ❑ Concepts, principles and nursing perspectives ❑ Ethical and legal issues ❑ Evidence based nursing and its application in gastrointestinal nursing(to be incorporated in all the units)
II	**5**	**Epidemiology** ❑ Risk factors associated with GE conditions- Hereditary, Psychosocial factors, smoking, alcoholism, dietary habits, cultural and ethnic considerations ❑ Health promotion, disease prevention, life style modification and its implications to nursing ❑ National health programmes related to gastro enterology ❑ Alternate system of medicine/complementary therapies
III	**5**	**Review of anatomy and physiology of gastrointestinal system** ❑ Gastrointestinal system ❑ Liver, biliary and pancreas ❑ Gerontologic considerations ❑ Embryology of GI system ❑ Immunology specific to GI system
IV	**15**	**Assessment and diagnostic measures** ❑ History taking ❑ Physical assessment, psychosocial assessment ❑ Diagnostic tests • Radiological studies:Upper GIT- barium swallow, lower GIT-Barrium enema, • Ultra sound: • Computed tomography • MRI • Cholangiography: Percutaneous transheptaticCholangiogram(PTC) • Magnetic Resonance Cholangio pancreotography (MRCP) • Nuclear imaging scans(scintigraphy) • Endoscopy

Unit	Hours	Content
		• Colonoscopy • Proctosigmoidoscopy • Endoscopic Retrogrde Cholongio pancreotography (ERCP) • Endoscopic ultrasound • Peritonoscopy(Laproscopy) • Gastric emptying studies • Blood chemistries: Serum amylase, serum lipase • Liver biopsy • Miscellaneous tests:Gastric analysis, fecal analysis • Liver function tests: Bile formation and excretion, dye excretiontest, Protein metabolism, haemostatic functions-prothrombin vitamin K production, serum enzyme tests,Lipid metabolism- serum cholesterol Interpretation of diagnostic measures Nurse's role in diagnostic tests

V	**25**	**Gastro intestinal disorders and nursing management** ❑ Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical , surgical and nursing management of • Disorders of the mouth:Dental caries,Peridontal disease,Acute tooth infection, Stomatitis, Thrush (moniliasis),Gingivitis, Leukoplakia, Inflammation of the parotid gland, Obstruction to the flow of saliva,Fracture of the jaw • Disorders of the oesophagus: Reflux oesophagitis, Oesophageal achalasia, Oesoophageal varices, Hiatus hernia, Diverticulum • Disorders of the stomach and duodenum: Gastritis, Peptic ulcer, Dumping of the stomach, Food poisoning, idiopathic gastroparesis, Aerophagia and belching syndrome, Ideopathic cyclic nausea and vomiting, Rumination syndrome, Functional dyspepsia, Chronic Non specific (functional) abdominal pain • Disorders of the small intestine – Malabsorption syndrome – tropical sprue – Gluten – sensitive enteropathy (Coeliac disease) – Inflammatory diseases of intestines and abdomen,: appendicitis, Peritonities, Intestinal obstruction, Abdominal TB, Gastrointestinal polyposis syndrome – Chronic inflammatory bowel disease, Ulcerative colites, crohn's disease – Infestations and infections – Worm infestations, Typhoid, Leptospirosis – Solitary rectal ulcer syndrome – Alteration in bowel elimination (diarrhoea, constipation, fecal impaction, fecal incontinence, Irritable bowel syndrome, Chronic idiopathic constipation, Functional diarrhoea **Anorectal Conditions:** Hemorrhoide, Anal fissure, Anal fistula, Abscess, Strictures, Rectal prolapse, Pruritis ani, Pelonidal disease, Anal condylomas, Warts

Unit	Hours	Content
VI	15	**Disorder of liver, pancreas gall bladder and nursing management** ❑ Disorders of liver biliary tract : ❑ Viral Hepatitis – A, B, C, D & E ❑ Toxic hepatitis • Cirrhosis of liver, liver failure, Liver transplantation • Non cirrhotic portal fibrosis • Liver abscess,; • Parasitic and other cysts of the liver • Disorders of the Gall Bladder and Bile Duct: ❑ Cholecystitis ❑ Cholelitheasis ❑ Choledocholilethiasis ❑ Disorders of the pancreas: Pancreatitis, ❑ Benign tumors of islet cells ❑ Disorders of the Peritoneum • Infections of the peritoneum ❑ Surgical peritonitis ❑ Spontaneous bacterial peritonitis ❑ Tuberculosis peritonitis ❑ Disorders of the Diaphragm • Diaphragmatic hernia • Congenital hernias • Paralysis of diaphragm • Tumors of the diaphragm ❑ Hiccups
VII	15	**Gastro intestinal emergencies and nursing interventions** ❑ Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical , surgical and nursing management of: • Esophageal varices, • Ulcer perforation, • Acute cholecystitis • Diverticulitis • Fulminant hepatic failure • Biliary obstruction • Bowel obstruction • Gastroenteritis • Intussusception • Acute intestinal obstruction, perforation • Acute pancreatitis • Cirrhosis of liver complications • Liver , spleen, stomach pancreatic, mesenteric, bowel andgreater vessel injuries • Acute appendicitis /peritonitis • Acute abdomen • Food poisoning
VIII	15	❑ **Congenital Anomalies of Esophagus** • Esophageal atresia • Tracheo esophageal fistula

Unit	Hours	Content
		• Esophageal stenosis • Esophageal duplications • Dysphagia – Lusoria – aberrent right subclavian artery compressing esophagus • Esophageal rings – schalzkiring • Esophageal webs ❑ **Congenital Anomalies of Stomach** • Gastric atresia • Micro gastria • Gastric diverticulum • Gastric duplication • Gastric teratoma • Gastric volvulus • Infantile hypertrophic pyloric stenosis • Adult hypertrophic pyloric stenosis ❑ **Congenital Anomalies of Duodenal** • Duodenal Atresia or stenosis • Annular pancreas • Duodenal duplication cysts • Malrotation and mid gut volvolus ❑ **Developmental anomalies of the intestine:** • Abdominal wall defects (omphalocele and Gastroschisis) • Meckel's diverticulum • Intestinal atresia ❑ **Hirschsprung's disease**

IX	**15**	**Pharmo Kinetics** ❑ Drugs used in GIT ❑ Principles of administration ❑ Roles responsibilities of nurses ❑ Drugs in Peptic ulcer disease ❑ Proton Pump inhibitors ❑ H_2 Receptor Antagonists ❑ Cytoprotective Agents: ❑ Drugs used in Diarrhea ❑ Drugs used in constipation ❑ Drugs used in Inflammatory Bowel Disease ❑ Aminosalicylates ❑ Corticosteroids ❑ Immunomodulators ❑ chemotherapy ❑ Antibiotics ❑ Antiemetics: ❑ Anticholinergics ❑ Antihistaminics ❑ Antihelminthics ❑ Vitamin Supplements

Unit	Hours	Content
X	10	**Nutrition and nutritional problems related to GI system** ❑ Nutritional assessment and nursing interventions ❑ Therapeutic diets ❑ Adverse reactions between drugs and various foods ❑ Malnutrition- etiology , clinical manifestations and management ❑ Tube feeding, parenteral nutrition, total parenteral nutrition ❑ Obesity- etiology, clinical manifestations and management ❑ Eating disorders- anorexia nervosa, bulimia nervosa ❑ Recent advances in nutrition
XI	15	**Malignant disorders of gastro intestinal system** ❑ Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical , surgical, other modalities and nursingmanagement of: • Malignancy of oral cavity ,Lip,Tongue,buccal mucosa,oropharynx, Salivary gland • Esophageal , Gastric , Carcinoma of bowel -Small bowel, Colorectal and Anal carcinoma, • Liver, biliary tract and Pancreatic carcinoma
XII	5	**Administration and management of GE unit** ❑ Design & layout ❑ Staffing, ❑ Equipment, supplies, ❑ Infection control; Standard safety measures ❑ Quality Assurance:-Nursing audit –records /reports, Norms,policies and protocols ❑ Practice standards
XIII	5	**Education and training in GE care** ❑ Staff orientation, training and development, ❑ In-service education program, • Clinical teaching programs

Practicals **Total = 960 Hours**

1 Week = 30 Hours

S.No.	Deptt./Unit	No. of Week	Total Hours
1	Diagnostic labs	2	60 Hours
2	Emergency and casualty	3	90 Hours
3	Liver transplant unit	1	30 Hours
4	GE Medical Ward	6	180 Hours
5	GE Surgical Ward	8	240 Hours
6	OT	2	60 Hours
7	ICU	4	120 Hours
8	Pediatric gastroenterology	2	60 Hours
9	Oncology	2	60 Hours
10	GE OPD	2	60 Hours
	Total	**32 Weeks**	**960 Hours**

Procedures Assisted

1. Endoscopy room – Upper G.I. Endoscopy (Diagnotic and therapeutic).
2. Sigmoidoscopy
3. Colonoscopy
4. Polypectomy
5. Endoscopic retrograde cholangio pancreatiography (ERCP)
6. Liver biopsy
7. Percutaneous catheter drainage (PCD) of Pseudocyst pancreas
8. Abdominal paracentesis
9. Percutaneous aspiration of liver abscess
10. GE Lab : PT, HbsAg, Markers – A, B, C virus, CBP, ESR, Stool Test

Procedures Performed

1. History and Physical assessment
2. RT intubation / extubation / aspiration/suction
3. Gastric lavage and gavage
4. Bowel wash
5. Therapeutic Diets
6. Ostomy feeding
7. Stoma care
8. Monitoring vital parameters
9. Plan of inservice education programme for nursing staff and Class-IV employees
10. Counseling

Course outcomes (Cos)

CO1	Remember the basic concepts of medical surgical nursing
CO2	Understand the pathophysiology and management of cardiothoracic,ortho,oncology,critical care,neuro,nephrourology,emergency and disaster, ,gastro enterology.disorders
CO3	Analyze deviations from normal, able to provide appropriate Interventions.
CO4	Apply revised protocols to manage medical surgical emergencies.
CO5	Evaluate the outcomes of Nursing interventions and revisions made according to recent advancements.
CO6	Create new interventions/protocols to improve quality of nursing care.

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	2	1		2			2	2	2		2	1	2
CO2		2	2			1					2	1	2		2
CO3		3		1			2			1	2		2		2
CO4	2					1			1		1		2	2	2
CO5	1	2	2	2	2		2	2		2		2			
CO6		2	2	2	2		2	2		2		2	2	2	2

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

ELECTIVE COURSE

(19ECIECHOR06)- Interpretation of ECHO Reading

Introduction of the Course

Introduction: Ultrasound modality using high frequency sound wave to create images of heart.This course is well planned to create a knowledge among the students regarding the ECHO interpretation of normal and abnormal reading.

Course Objective and Summary

1. Review the anatomy and physiology of cardiac system.
2. List out the advantages and disadvantages of ECHO.
3. Describe the indications of ECHO

4. Explain the interpretation of ECHO.

Summary: Learning about ECHO and its interpretation will help the student to learn about cardiac functions in a distinct manner.

Course Outcomes (Cos)

CO1	Remember the systematic review of cardiology
CO2	Understand the importance of preparation of Patient for ECHO
CO3	Apply or implement the techniques of taking ECHO
CO4	Analyze and critique the ECHO readings.
CO5	Develop a healthy life style(based on Bloom's Taxonomy)
CO6	Create and conduct group/individual training programmes.

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	1	1	2	2	2	1	3	2	2	3	1	2	1
CO2	1	1	1	1	3	1	1	1	3	1	1	2	1	1	1
CO3	1	2	2	1	1	1	1	1	3	1	2	1	2	1	1
CO4	3	1	1	1	2	1	1	1	3	2	2	1	1	1	1
CO5	1	1	2	2	1	1	1	1	3	3	1	1	1	2	2
CO6	1	1	1	1	1	1	1	1	3	2	2	1	1	1	1

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low

Content of the Course

Course Content

Alignment of topics of the courses with COs

Unit	Learning Objective	Content	Hrs	Alignment to COs
I	Introduction to anatomy and physiology of cardiacsystem.	**Introduction to anatomy andphysiology of cardiac system** • Review of anatomy and physiologyof heart • Systemic circulation • Normal and abnormal cardiacfunctions	T (10) P (3)	CO1 & CO2
II	Explain the importantof ECHO	**ECHO- Basic components** • components, indications, procedures of ECHO • Types ✓ Transthoracic echocardiogram ✓ Transesophageal echocardiogram ✓ Intracardiac	T (10) P (5)	CO3 & CO6
III	Explain the interpretation ofECHO	**ECHO Interpretation** • Parasternal long axis view • Parasternal short axis view • Apical 4 chamber view • Apical 2 chamber views • Suprasternal view	T (10) P (2)	CO4 & CO5

Teaching- Learning Strategies

(i) Lecture cum Discussion
(ii) Seminar
(iii) Lab – Demonstration
(iv) Re- Demonstration
(v) Assignments

Assessment Techniques of each topic of the course

S.No	Topic	Assessment Techniques
1.	Introduction to anatomy and physiology of cardiac system.	Short answer
2.	ECHO- Basic components	Short answers, Objective type, Returndemonstration
3.	ECHO Interpretation	Short answers, Objective type, samplecalculation

(19ECACM07)- Assessment of Cardiac Monitoring

Introduction of the Course

Introduction: This course is designed to provide nursing students with the skills required to care competently and safely for critically ill patient. It focuses on having the students expand their knowledge base and master critical care nursing psychomotor skills associated with assessment and provision of comprehensive nursing care for patient with acute life threatening conditions and attitudes through reflection in and on action in clinical settings. It also focuses on the application of immediate rapid and accurate nursing assessment and provision of quality nursing care according to priorities. It enable the students to provide comprehensive quality nursing care for critically ill patient with different body system alterations, with different types of invasive devices and with different types of machines encountered in critical care settings and to understand the critical care .environment in which practice occurs in order to provide care for the critically ill patients in the different critical care settings. Nursing process is used as an approach of providing holistic patient care. Critical thinking, clinical judgment, decision making and team work are emphasized in this course.

Course Objective and Summary

1. Demonstrate the ability to assess critically ill patients with the different invasive devices &machines and their families
2. Provide comprehensive nursing care for the critically ill patients with the different acute andlife threatening conditions and their families.
3. Demonstrate the most commonly used Cardiac monitoring nursing procedures
4. Demonstrate the routine care for the most commonly inserted invasive devices
5. State the common needs /problems and nursing diagnosis for critically ill patient & theirfamilies.
6. Describe the general care of critically ill patient & their families.
7. Learn the most commonly used nursing diagnosis for critically ill patients
8. Know the most commonly used drugs & infusion - The most commonly used invasive devices
9. Demonstrate critical care nursing procedures
10. Practice nursing case study on the most commonly acute and life threatening conditionsencountered in critical care units

Summary: Learning about cardiac monitoring will help the students to operate cardiac monitors and its interpretation will help the student to learn about cardiac functions in a distinct manner.

Course Outcomes (Cos)

CO1	Remember the systematic review of cardiology
CO2	Understand the importance of cardiac monitors
CO3	Apply or implement the knowledge in operation of cardiac monitors
CO4	Analyze and critique the cardiac monitor results
CO5	Develop a healthy life style(based on Bloom's Taxonomy)
CO6	Create and conduct group/individual training programmes.

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	1	1		2	2				2			2	1
CO2	1		1	1		1	1	1	3	1	1			1	1
CO3	1		2	1		1		1	3	1	2	1		1	1
CO4	3		1	1	2	1		1	3	2	2	1	1	1	
CO5	1	1				1		1				1	1	2	
CO6	1	1	1	1	1	1	1	1	3	2	2	1	1	1	

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low

Content of the Course

Course Content

Alignment of topics of the courses with COs

Unit	Learning Objective	Content	Hrs	Alignment to COs
I	Introduction to cardiac monitoring	Assessment of critically ill patient & itsterminology Nursing care plan • Critical care nursing record &Reportsfor other units • Evaluation criteria • Respiratory assessment • Artificial airways • Suctioning (Use of ambu bag ,Percussion &viberation ,oxygentherapy & Inhalation therapy • Mechanical ventilation • Pulse oximeter & Capnogram • Arterial puncture & Arterial line • ABG interpretation • Chest tube	T (10) P (3)	CO1 & CO2
II	Explain the Clinical application of cardiac monitoring	• Clinical application of respiratoryassessment, • Assessment of noninvasive &invasive respiratory • devices and mechanical ventilator, • Exercises on patient's ABGinterpretation. • Cardiovascular assessment (clinicalrevision) • ECG & Cardiac monitor, • ECG tracing analysis, • Central venous catheter & CVPmeasurement.	T (10) P (5)	CO3 & CO6
III	Practice in clinical care units	• Cardioversion & defibrillation • Pacemaker • Emergency cart & Emergencydrugs • Drug dosage calculation • Advanced life support algorithms	T (10) P (2)	CO4 & CO5

		• Assessment of nervous system and		

		other body systems • Nasogastric tube • Total parenteral nutrition • Gluco check • Urinary catheter • Recording and reporting • Clinical practice on IV infusionpump, syringe • pump & enteral nutrition feedingpump		

Teaching- Learning Strategies

(i) Lecture cum Discussion
(ii) Seminar
(iii) Lab – Demonstration
(iv) Re- Demonstration
(v) Assignments

Assessment Techniques of each topic of the course

S.No	Topic	Assessment Techniques
1.	Introduction to cardiac monitoring	Short answer
2.	Clinical application of cardiac monitoring	Short answers, Objective type, Return demonstration
3.	Practice in clinical care units	Short answers, Objective type, sample calculation

(19ECID08)- IMMUNODIAGNOSTICS

Introduction of the Course

Introduction: This course give information about immuno system.immuno diagnostics is a diagnostic methodology that uses an antigen-antibody reaction as their primary means of detection. The concept of using immunology as a diagnostic tool was introduced in 1960 as a test for serum insulin.

Course Objective and Summary

1. Define unique characteristics of Immune system related to anatomy and physiology of the Lymphocytes
2. Demonstrate understanding of normal Immune system
3. Recognize normal Defence Mechanism of Human Body
4.Identify common Changes of Antigen Antibody Reaction of Human body
5. Distinguish the values of Immunoglobulins

Summary: learning about of antigen antibody reaction of human body is essential.

Course Outcomes (Cos)

CO1	Remember the systematic review of normal Lymphocytes
CO2	Understand the normal Immune system
CO3	Recognize normal Defence Mechanism of Human Body
CO4	Distinguish Immunoglobulin values of the human body
CO5	Develop a Natural immunity by adopting healthy life style(based on Bloom's Taxonomy)
CO6	Create and conduct group/individual training programmes.

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	1	1	1	2	2		1		2				2	1
CO2	2		1		3	1		1		1	1	2	1		1
CO3	**2**				1	1		1		1	2	1	2		1
CO4	**1**				2	1	1	1	2	2	2	1	1		1
CO5	**1**		2				1	1	2				1	2	
CO6	1	1	1	1	1	1	1	1	2	2	2	1	1	1	

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

Part B- Content of the Course

Course Content

Alignment of topics of the courses with COs

Unit	Learning Objective	Content	Hrs	Alignment to COs
I	Introduction about Immunology	**An overview of the course** • Immune system • Types of immunity • Structure and function if Lymphocytes • Antigen Antibody Reaction	T (10) P (3)	CO1 & CO2&**CO5**
II	Explain about Immunodiagnostics G	• The concept of using immunology as a diagnostic tool was introduced in 1960 as a test for serum insulin. υ A second test was developed in 1970 as a test for thyroxine in the 1970s. It is well-suited for the detection of even the smallest of amounts of chemical substances. Antibodies specific for a desired antigen can be conjugated with a radiolabel, fluorescent label, or color-forming enzyme and are used as a "probe" to detect it. υ Well known applications include pregnancy tests, immunoblotting, ELISA and immunohistochemical staining of microscope slides. υ The speed, accuracy and simplicity of such tests has led to the development of rapid techniques for the diagnosis of disease, microbes and even illegal drugs in vivo. υ Such testing is also used to distinguish compatible blood types	T (10) P (5)	CO3 & CO4
III	Explain about the Immuno globulins	Immuno globulins A,G,M,E	T (10) P (2)	CO4 & CO5

Teaching- Learning Strategies

1. Lecture cum Discussion
2. Seminar
3. Lab – Demonstration
4. Re- Demonstration
5. Assignments

Assessment Techniques of each topic of the course

S.No	Topic	Assessment Techniques
1.	**Immune system overview of the course**	**Short answer**
2.	**Immunodiagnostics**	Short answers, Objective type, Return demonstration
3.	**Antigen Antibody Reaction**	Short answers, Objective type, sample calculation

(19ECQA09)-QUALITY ASSURANCE

Introduction of the Course

INTRODUCTION: This course is designed to enable students to acquire in-depth understanding of management of hospital services, management of nursing services and nursing educational programmes. This is also designed to enable students to acquire understanding of the professional responsibilities, prospects and contribution to the growth of the Nursing profession. A nursing audit is a process of determining the quality of nursing care by reviewing clinical records made by healthcare professionals. It helps ensure consistent quality patient care and uncovers areas for improvement. Use this nursing audit checklist to confirm compliance with proper nursing documentation and check patient care provided to patients.

Course objective and summary:

1. Understand the principles and purpose of nursing audit

2. Understand the elements and process of nursing audit

3. Appreciate the management of nursing services in the hospital and community.

4. Apply the concepts, theories and techniques of organizational behaviour and human relations.

5. Develop skills in planning and organizing in service education

6. Understanding the management of nursing educational institutions

Summary: Learning about Nursing audit,, its scientific principles, and techniques will help the student to quality of nursing care..

Course Outcomes (Cos)

CO1	Remember the systematic review of Nursing audit
CO2	Understand the importance of quality of nursing care
CO3	Apply or implement the techniques of Quality assurance
CO4	Analyse the Merits, Demerits of Nursing Audit
CO5	Develop a Protocol for Nursing Procedure
CO6	Create Auditing Team to assess the Nursing Interventions of Patient Care, programmes.

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	1	1	1	2	2		1	3				1	2	1
CO2	3	1	1		3	1		1	3	1	1	2		1	1
CO3	3	2	2		1	1		1	3	1	2	1		1	1
CO4	3		1		2	1	1	1	3	2		1		1	1
CO5	3		2	2	1	1	1	1	3	3		1	1	2	2
CO6	3		1	1	1	1	1	1	3	2		1	1	1	1

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

Content of the Course

Course Content

Alignment of topics of the courses with COs

Unit	Learning Objective	Content	Hrs	Alignment to COs
I	Describe the management of nursing services in the hospital and community	Introduction • Purpose of nursing audit • Management of nursing • services in the hospital • Planning Hospital & patient care units including ward	T (10) P (3)	CO1 & CO2

		• management Emergency and disaster management • Human resource management Recruiting, selecting, • deployment, retaining, promoting, superannuation Categories of nursing personnel including, job description of all levels Patients/ population classification system Patients/ population assignment •		
II	Explain the nursing audit	• Methods to develop audit tool • Audit as a t ool for quality control • Advantages of nursing audit • Disadvantages of nursing audit • Difference between between audit and research •	T (10) P (5)	CO3 & CO6
III	Explain about Nursing administration	• Nursing audit methods • Steps for conducting nursing audit • Digital nursing audit tools • Medical record audit check list • Formula calculations • Bolus infusion • Digital infusion • Formula feeding • Recording and reporting	T (10) P (2)	CO4 & CO5

Teaching- Learning Strategies

1. Lecture cum Discussion
2. Seminar
3. Lab – Demonstration
4. Re- Demonstration
5. Assignments

Assessment Techniques of each topic of the course

S.No	Topic	Assessment Techniques
1.	Introduction	Short answer
2.	Nursing procedures Asepsis and aseptic practice	Short answers, Objective type, Return demonstration
3.	quality assurance	Short answers, Objective type, sample calculation

(19ECOT10)- ORGAN TRANSPLANTATION

Introduction of the Course

Introduction: This programme aims at providing the knowledge and competences needed for the successful clinical evaluation of the potential recipients of solid organs, as well as the waiting list criteria, and pre and post transplant treatment.

Course Objective and Summary

*To improve participants knowledge on acute and chronic kidney, liver, pancreas, heart, lung failure and adequately assess referred patients for transplantation
*To provide participants with the knowledge of the principles of pre op preparation preparation of implant site as well as common intra operative challenges
*To identify and treat post op complications
*To provide knowledge on the surgical procedures and post operative care of living donors
*To improve short and long term follow up of the living donor

Summary: There is a need for formal training of organ transplant trainers to the level of conscious competence, which in turn will enable improved organ donation education of trainees.

Course Outcomes (Cos)

CO1	Remember the systematic review of tissues, organ
CO2	Understand the importance of organ transplant
CO3	Apply or implement the principles of pre op preparation , preparation of implant site
CO4	Analyse the complications, Post transplant infectious diseases
CO5	Develop a healthy life style(based on Bloom's Taxonomy)
CO6	Create and conduct group/individual training programmes.

Mapping / Alignment of Cos with PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1	1	1	2		2	1				3	1	2	1
CO2	1				3		1	1	3	1	1	2	1	1	1
CO3	1	2	2	1	2		1	1	3				2		1
CO4	1	1		1	2	1				2	2	1	1		1
CO5	1	1		2	1	1	1	1	3	3	1	1	1		2
CO6	1	1		1	1	1	1	1	3	2	2	1	1	1	1

(Tick mark or level of correlation: 3-High, 2-Medium, 1-Low)

Content of the Course

Course Content

Alignment of topics of the courses with COs

Unit	Learning Objective	Content	Hrs	Alignment to COs
I	Introduction to organ transplant	• Introduction • Types of transplant • Organs and tissues transplanted • Advantages • Skin graft • Blood vessel graft • Bone graft • Bone marrow graft	T (10) P (3)	CO1 & CO2
II	Explain the types of organ transplantation	• Criteria for organ donation • Types of donor- living ,cadaver • Reasons for donation • Proliferation • Allo transplantation • Auto transplantation • histocompatibility	T (10) P (5)	CO3 & CO6
III	Enumerate the various aspect of organ transplant	• Organ transplantation act • Who guiding principles on human cell, organ transplantation tissue and organs • Organ transplantation drugs	T (10) P (2)	CO4 & CO5

		• Preparation and risks of transplantation • Ethical issues • Waitlist management • Post transplant infectious disaeses		

Teaching- Learning Strategies

1. Lecture cum Discussion
2. Seminar
3. Lab – Demonstration (endoscopic assessment, gastro intestinal assessment)
4. Re- Demonstration
5. Assignments

Assessment Techniques of each topic of the course

S.No	**Topic**	**Assessment Techniques**
1.	Introduction	Short answer, Objective type
2.	The types of transplantatiom	Short answers, Objective type, Return demonstration, case scenario
3.	The various aspect of organ transplant	Short answers, Objective type, demonstration