Faculty of Health & Biological Sciences
Syllabus for Entrance Test

NURSING MANAGEMENT, EDUCATION, AND RESEARCH

The unit I: BIOPSYCHOSOCIAL PATHOLOGY AND APPROACH IN NURSING CARE ASPECT

- Pathophysiology and Psychodynamics of disease causation
- Life processes, homeostatic mechanism, biological and psycho-social dynamics in the causation of disease.
- Common problems: Oxygen insufficiency, fluid and electrolyte imbalance, nutritional problems, haemorrhage and shock, altered body temperature, unconsciousness, sleep pattern, and its disturbances, pain, sensory deprivation
- Treatment aspects: pharmacological and pre-post-operative care aspects
- Cardio Pulmonary Resuscitation
- End of Life Care
- Crisis management
- Infection prevention (including HIV) and standard safety measures, bio-medical waste management
- Evidence-based nursing practice; Best practices, Innovations in nursing
- Health Assessment- illness status of patients/clients (individuals, family, community), Identification of health-illness problems, health behaviors, signs and symptoms of diseases in clients.
- Methods of collection, analysis, and utilization of data relevant to the nursing process
- Formulation of nursing care plans, health goals, Implementation, modification and evaluation of care

Unit II: NURSING PROCESS APPROACH IN ADMINISTRATION

- The concept of management, types, and principles
- Vision and mission statements
- Philosophy, aims, and objectives
- Functions of administration
• Planning and control
• Co-ordination and delegation
• Decision making – decentralization, basic goals of decentralization
• Current trends and issues in Nursing administration
• Theories and models of management and leadership
• Application to nursing service and education in manpower planning

Unit III: PLANNING PROCESS, APPROACH IN NURSING CARE ASPECTS AND NURSING SERVICE ADMINISTRATION IN INDIA

• Planning process: concept, principles
• Mission, philosophy, objectives
• Strategic planning
• Operational plans
• Management plans
• Programme Evaluation and Review Technique (PERT), Gantt chart, Management By Objectives (MBO)
• The process of change and change theory, application to nursing service and education
• Alternative modalities of care, alternative systems of health and complimentary therapies.
• The extended and expanded role of the nurse, in promotive, preventive, curative and restorative.
• SDG and MDG impacts on nursing practice and research
• Independent practice issues- Independent nurse-midwifery practitioner
• Collaboration issues and models-within and outside of nursing.
• Models of Prevention
• Family nursing, Home nursing
• Gender sensitivity and women empowerment
• Disaster nursing
• Geriatric considerations in nursing
• Evidence-based nursing practice- Best practices
• Trans-cultural nursing
• Futuristic nursing
• Indian Administrative system Vis a Vis health care delivery system: National, State and Local, Indian Constitution with levels of prevention
• Planning Processes: Five-year plans, health committees on nursing care management
• National Health Policies- trends and their impacts

Unit IV: NURSING INFORMATICS AND REGULATORY MECHANISMS

• Nursing informatics- Trends in hospital and community
• Management Information and Evaluation System (MIES)
• E-nursing, Telemedicine, Telediagnosis
• Electronic Medical Records- Nursing records and reports
• Code of ethics and professional conduct
• Legal system: Types of law, tort law, and liabilities
• Medico-legal concepts and nursing practice
• Nursing regulatory mechanisms: licensure, renewal, accreditation
• Infection control
• Standard safety measures

Unit V: TEACHING-LEARNING PROCESS

• Concepts and definitions of teaching and learning, theories of teaching and learning, the relationship between teaching and learning
• Educational aims and objectives; types, domains, levels, elements and writing of educational objectives Competency-Based Education(CBE) and Outcome-Based Education(OBE)
• Instructional design: Planning and designing the 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 (sociodrama), clinical teaching methods, Programmed Instruction, Self-Directed Learning(SDL), micro teaching, Computer Assisted Instruction(CAI), Computer Assisted Learning (CAL)

Unit VI: MEASUREMENT AND EVALUATION

• Instructional aids – types, uses, selection, preparation, utilization
• Teacher’s role in procuring and managing instructional aids – Project and non-projected aids, multimedia, video-tele conferencing
- Concept and nature of measurement and evaluation, meaning, process, purposes, problems in evaluation and measurement
- Principles of assessment, formative and summative assessment- internal assessment external examination, advantages, and disadvantages
- Criterion and norm-referenced evaluation
- Meaning, characteristics, objectivity, validity, reliability, usability, norms, construction of tests
  a) Subjective and Objective evaluation - Essay, short answer questions, and multiple choice questions
  b) Rating scales, checklist, OSCE/OSPE(Objective Structured Clinical/Practical examination)
  c) Differential scales, and summated scales, socio-metri, anecdotal record, attitude scale, critical incident technique
  d) Question bank-preparation, validation, moderation by panel, utilization
- Developing a system for maintaining confidentiality
- Tests of intelligence, aptitude, interest, personality, achievement, socio-economic status scale, tests for special mental, physical abilities and differently abled

Unit VII: ADMINISTRATION OF NURSING CURRICULUM

- Role of curriculum coordinator – planning, implementation, and evaluation
- Evaluation of educational programs in nursing course and program
- Factors influencing faculty/ staff relationship and techniques of team work.
- The concept of faculty supervisor (dual) position-integration of theory and practical
- Curriculum research-impacts curriculum revision and development in nursing
- Different models of collaboration between education and service
- IEC
- Quality assurance in nursing

Unit VIII: NURSING RESEARCH PROCESS

- Classification of Nursing theories and development
- Research process
- Review of literature- Importance, purposes, sources, criteria for selection of resources and steps in reviewing the literature
- Research Approaches and designs- Type: Quantitative and Qualitative
- Historical, survey and experimental –Characteristics, types, advantages, and disadvantages
- Qualitative: Phenomenology, grounded theory, Ethnography
- Research problem: Identification of research problem, Formulation of problem statement and research objectives, variables, Hypothesis
- Sampling: Population and sample, Sampling techniques, Sample size, Probability and sampling error, Problems of sampling
- Tools and methods of Data collection; quantitative and qualitative
- Validity and reliability of tools
- Pilot Study
- Data analysis: quantitative and qualitative
- Reporting and utilizing research findings

**Unit IX: LAWS AND ETHICS IN NURSING RESEARCH**

- The law, morals and Ethical Principles
- Negligence and malpractice
- Hospital policies and procedure
- Clinical protocols and practice standards
- Legal issues in nursing: negligence, malpractice, invasion of privacy, defamation
- Patients’ rights and rights of special groups: children, women, HIV infected patients, differently abled and migrant population
- Code of Ethics for Nurses in India
- International Code of Nursing Ethics
- Ethical dilemma and decision making

**Unit X: VITAL HEALTH STATISTICS AND USE OF HEALTH-RELATED NURSING RESEARCH**

- Application of statistics in health
- Health indicators
- Use of vital health statistics in epidemiological nursing research
- Ratios, Rates, Trends
- Census, family size, life expectancy, the density of population
- Vital health statistics
- Concepts of causation of diseases and their screening
- Application of epidemiology in health care delivery, Health surveillance and health informatics
- Measures related to fertility, morbidity, and mortality