Test Guidelines for
National Specialization Registration Examination for Nurses (NSREN) 2023

Effective from June 2023

Nepal Nursing Council
Kathmandu, Nepal

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Approved by:
Board Meeting of Nepal Nursing Council (NNC)
Revised on 2025

Published by:
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I. Background

Nepal Nursing Council (NNC) is an autonomous body formulated by the Government of Nepal for promoting quality nursing and midwifery service in the country. This test guideline has been developed by exercising the provisions made by clause 9.1.nga of NNC Act and paragraph 3.3 of the Nepal Nursing Council Rules, 2065 regarding the examination for registration of Nepalese Nurses who have graduated in various specialties of nursing in order to register them as specialist nurses in the Nepal Nursing Council.

Until Falgun 2079, Nepal Nursing Council registered the specialist nurses of Nepal based merely on the verification of the certificates and documents. This guideline has been developed for conducting specialist registration examination as decided by the Nepal Nursing Council board held on Manshir 18, 2079 to ensure the fulfillment of proficiency requirements of the nurses with specialization for registering them as specialist nurses.

II. Objectives

The objectives of the National Specialization Registration Examination for Nurses (NSREN) are as follows:

1. To safeguard the public by ensuring competent and professionally prudent service in the specialty nursing fields.
2. To maintain professional standard among the specialist nurses

III. Test guidelines for the National Specialization Registration Examination for Nurses (NSREN)

Eligibility

(A) **Nepalese citizen specialized from Nepal**

To meet the educational requirement for registration as a specialist professional nurse, the candidate must present satisfactory evidence of having completed post-graduate nursing programme and must submit the documents as mentioned in Table 1.

(B) **Nepalese citizen graduated from other countries**

Applicants, who have completed postgraduate nursing programme from other countries, are required to have their equivalence certificate from the concerned government authority.

Applicants who have completed their PG program other countries with enrollment after October 2020 are required to submit eligibility certificate of Medical Education Commission, Sanothimi.

Applicants need to be graduated from the institute recognized from the respective nursing council or authorized government body and must submit the documents as mentioned in Table 2.

Exception

(A) **Reporting prior convictions or disciplinary action against registration**

Applicants are required under 'Regulation of the **NSREN** to report all misdemeanors, and felony convictions and/or disciplinary actions. Failure to report prior disciplinary action is considered falsification of application and is a ground for denial of registration.

(B) **Applicants with disability**

Applicants, who are constitutionally provisioned for special consideration, will be provided opportunity to appear in the examination based on their limitations.

Documents required for Application

All documents are required to be scanned and uploaded so that the original copy can be clearly understood. The following documents are required for application.

Table 1: List of Documents Required for Nepalese Citizen Graduated from Nepal

Items
1. Submission of complete online personal information
2. Uploading scanned original copies of the following transcripts/mark sheets and certificates* (size not more than 2MB and must be in jpg format) • Nepali citizenship on both sides • Valid certificate of registered nurse (issued by NNC) on both sides • B. Sc. Nursing or PBBN or BNS academic transcript/mark sheet, character certificate and university certificate • Postgraduate Nursing academic transcript/mark sheet, character certificate and university certificate
3. Uploading recently taken white background passport size color photo (size not more than 2MB and must be in jpg format)
3. Online payment of Examination fee of NRs. 5,100/-
*** Candidates must bring** all original academic certificates, citizenship and related documents for verification while receiving registration certificate from NNC.

Table 2: List of Required Documents for Nepalese Citizen Graduated from Other Countries

Items
1. Submission of complete online personal information
2 Uploading scanned original copies of the following transcripts/mark sheets and certificates* (size not more than 2MB and must be in jpg format) • Nepali citizenship on both sides • Valid certificate of registered nurse (issued by NNC) on both sides • B Sc. Nursing or PBBN or BNS academic transcript/mark sheetand character certificate and university certificate • Postgraduate Nursing academic transcript and character certificate and university certificate
3. Uploading original scanned copies of documents related to recognition/accreditation of institute from the respective nursing council or individual registration in the respective nursing council or in the authorized government body (only in case of non-existence of nursing council) of the respective country

4. Uploading original scanned copy of Equivalency letter from Curriculum Development Center, Tribhuvan University, Kirtipur
5. Uploading recent white background passport size photo (size not more than 2MB and must be in jpg format)
6. Online payment of Examination fee of NRs. 5,100/-
* All original academic certificates, citizenship and related documents need to bring for verification during receiving registration certificate from NNC.

Application Process

1. The applicant must upload all the documents to online NSREN registration process within the time period mentioned in the notice.
2. The examination center, time and other important information will be notified on the online admit card. The admit card can be downloaded from online application site prior to date of examination.

ATTENTION!

- If any applicant changes her/his name and/or address after submitting an application for specialization registration, the applicant must notify the NNC prior to receiving specialization registration certificate. The applicant is required to submit official documents for any changes to the NNC immediately after the change occurs.

Examination Process and Rules

NSREN will be of computer-based and two and half hours (2:30 hours) duration with 150 multiple choice questions.

Test Items

All of the test items will be Multiple Choice Questions (MCQs) with four options. Test items will cover questions of mostly of problem solving type of understanding and application level. Applicants should select the most appropriate one option for each item. Distribution of test items according to subjects is given Table 3.

Table 3: Subject-wise Distribution of Test Items

SN	Subject	Possible No. of Items
Core Courses=60 questions (40.0%)		**60**
1	Nursing Theories and Models	5
2	Trends and Issues in Nursing	5
3	Nursing Research	15
4	Biostatistics	5
5	Epidemiology	5
6	Educational Science	10
7	Health Service Management	15
Specialty Courses=90 questions (60.0%)		**90**
8	Women Health and Development/ Maternity/ Maternal/Women's Health/Midwifery/Obstetric and Gynecological/Reproductive Health/Maternal and Child Health Nursing	

	Adult/Medical surgical Nursing	
	Child Health/Pediatric Nursing	
	Community /Public Health Nursing	
	Mental Health/Psychiatric/and Psychology Nursing	
	Emergency and/or critical care nursing	
	Others: General Nursing, Oncology Nursing, Nursing Management/Administration, Nursing Education, Master of Science in Advanced Nursing Studies, Master of Medicine in Nursing, Gerontology, etc.	
	Total	**150**

Frequency of the NSREN

NNC will conduct the NSREN **three times in a year**. If applicant fails an examination, s/he will be allowed to apply for the next examination.

Scoring System
Each correct answer receives 1 score. There is no negative scoring system. It means when applicant gives wrong answer, no minus marking will be done.

Passing Standard
The grading system on the NSREN is either pass or fail. No numerical score will be provided. In order to pass the NSREN, the applicant must score at least 60% marks in aggregate.

Result of NSREN
The result of NSREN will be published on the day of examination unless and until there is a technical difficulty. Results will be published on the NNC notice board and on the NNC's website. NNC will not inform the candidates individually.

Registration Process
Once the applicant has passed NSREN successfully s/he should apply to the NNC for Specialist Registration Certificate with the registration fee of NRs.2000/ and s/he should also bring the admit card along with two photographs same as used in admit card including all the original documents and citizenship certificate.

Syllabus for NSREN

Subjects

1. NURSING THEORIES AND MODELS

Unit	Contents
1	**Introduction** • Terminologies used in theories and models • Characteristics of a theory • Levels of theory
2	**Models/ Criteria for Critiquing of Theories and Models:** • Martha Alligood's Model

	• Jacqueline Fawcett's model • Afaf Meleis' Model • Julia George's Model
3	**Description, Analysis, Evaluation of Selected Nursing Theories and their Relevance in Nursing** • Florence Nightingale's environment theory • Hildegard E. Peplau's interpersonal relation theory • Virginia Henderson's theory of independence • Martha Roger's science of unitary human being
4	**Description, Analysis, Evaluation of Selected Nursing Theories and their Relevance in Nursing** • Faye Glenn Abdellah's problem solving theory • Sister Callista Roy's adaptation model • Betty Neuman's system model • Katharine Kolcaba's comfort theory
5.	**Description, Analysis, Evaluation of Selected Nursing Theories and their Relevance in Nursing** • Madeleine Leininger's culture care theory • Dorothea Orem's self-care theory • Jean Watson's science of caring • Nola J. Pender's health promotion model

2: TRENDS AND ISSUES IN NURSING

Unit	Contents
1	**Trends and Issues: Terminology and Image of Nursing** • Before nineteenth century • Nineteenth century • Twentieth century • Contemporary image • Contemporary and future nursing roles
2	**Nursing as a Profession** • Profession and professionalism • Process of professionalism • Professionalization of nursing: Progress and challenges • Strategies to enhance professionalism • **Regulatory Organization in Nursing:** ▪ Nepal Nursing Council (NNC) ❖ **Professional organization** ▪ Nursing Association of Nepal (NAN) ▪ International Council of Nurses (ICN) ▪ Midwifery Society of Nepal (MIDSON)

3	**Ethical and Legal Issues in Nursing** • Nursing ethics • Ethical theories • Ethical principles • Ethical decision–making model • Bioethical dilemmas and decision-making • Legal aspects in nursing: legal categories, nursing documentation, standard of care and malpractice
4	**Trends and Issues in Nursing** • Nursing education*:* Privatization, specialization and super-specialization, innovative programs (Problem-based learning, evidence based learning and distance education), accreditation at national, regional and international levels and trends and issues in nursing education. • Nursing practice*:* Nursing practice in different health care settings, changes in consumer's health needs and health care system, alternative/complementary health care, types and nurses' role, innovative nursing practice (tele nursing) and evidence based nursing practice, and trends and issues in nursing practice • Factors affecting quality nursing education, nursing practice
5	**Trends and Issues in Nursing** • Nursing management: Issues and challenges in health and nursing management • Nursing research: Nurses' participation in research and trends and issues in nursing research • Factors affecting nursing management and nursing research

3. NURSING RESEARCH

Unit	Contents
1	**Introduction** • Purpose and scope of research in nursing • Concept of evidence-based practice • Ethical considerations in nursing research
2	**Types of research** • Basic, Applied and Action • Historical, Descriptive and Experimental • Quantitative, Qualitative and Mixed Method
3	**Research Process for Quantitative and Qualitative Research**

	Conceptual Phase • Research problem: Sources, components and characteristics • Research objectives: Types and components • Theoretical and conceptual framework • Research questions and hypothesis: Sources, characteristics, significance and types • Variables types and operational definition
4	**Literature review:** • Purpose • Classification • Sources • Process and documentation • Referencing of reviewed literature
5	**Planning Phase: Research Design** • Quantitative research designs: Non-experimental (Descriptive and analytical) and experimental designs • Experimental validity and threats to validity
6	**Planning Phase: Research Design** **Qualitative research designs**: Phenomenology, ethnography, grounded theory, action research, life health care research
7	**Population and Sampling:** • Population and its types • Sampling and its purpose and types (Probability and non-probability), • Sampling bias and sampling error • Factors affecting sample size
8	**Research Instruments** • Questionnaire, Interview Schedule (structured and unstructured), observation checklist and rating scale • Quality of quantitative instrument: Validity and reliability of the instrument • Quality of qualitative instrument: Credibility, dependability, transferability • Pretesting and pilot study
9	**Empirical Phase** • Data collection methods • Data collection procedure and quality assurance in data collection • Data processing: Preparing data for analysis (steps)
10	**Analytic Phase** • Data analysis and presentation • Data analysis and presentation of qualitative and quantitative data • Data interpretation: Discussion, conclusion limitation, implication and recommendation
11	**Research Proposal** • **P**urpose and principles

	• Components of research
12	**Research Report** • Purpose and principles of report writing • Components • Principles of scholarly writing
13	**Dissemination Phase** • Dissemination of research findings • Strategies to promote research utilization
14	**Research Critique** • Meaning and purpose • Skills required in critique • Elements of research critique

4. BIOSTATISTICS

Unit	Contents
1	**Descriptive Statistics** • Types of data • Tabulation, classification and frequency distribution and graphic presentation of dat • Measures of central tendency • Measures of dispersion • Measures of correlation • Sample size calculation
2	**Probability and Non Probability Distribution** • Concept • Theories of probability • Probability distribution • Assessment of normality of data •
3	**Inferential Statistics** • Testing of hypothesis • Type I and type II error • Statistical assumptions of parametric and non-parametric tests
4	**Inferential Statistics** • Estimation theory for statistical inferences • Statistical estimation: Point and interval • Meaning and interpretation of confidence interval
5	**Inferential Statistics** • Parametric tests: Meaning and types • Non-parametric tests: Meaning and types • Regression • Analysis of variance • Logistic regression

5. EPIDEMIOLOGY

Unit	Contents
1	**Epidemiological Concept of Health and Disease** • Concept of health • Concept of disease and disease causation theories • Natural history of disease
2	**Epidemiological Disease Prevention and Control** • Epidemiological approach • Mode of disease transmission • Concept of control
3	**Epidemiological Disease Prevention and Control** • Levels of prevention • Screening for diseases • Measures of disease frequency • Surveillance of disease
4	**Communicable and Non-communicable Diseases in Epidemiology** • Investigation and control of communicable disease/epidemics • Investigation and control of Non-communicable disease
5	**Health Indicators** • Health and vital statistics • Characteristics, and usefulness of health indicators

6. EDUCATIONAL SCIENCE

Unit	Contents
1	**Education** • Scope, purpose and functions • Philosophies of education: Naturalism, idealism, behaviorism, realism and pragmatism • Factors influencing education
2	**Learning Theories:** • Behaviorism • Cognitivism • Social learning theory • Constructivism
3	**Need Analysis** • Significance in education • Methods of need analysis • Tools used in need analysis
4	**Instructional/Teaching Learning Methods (teacher centered)** • Types of instructional methods: Interactive lecture, Demonstration, Role play, Simulation based learning, Group discussion, Exhibition
5	**Instructional/Teaching Learning Methods (student centered)**

	• Seminar, Panel discussion, Symposium, Project work, self-directed learning, blended learning, Problem based learning, Micro teaching, Webinar, Distance learning
6	**Instructional/Teaching Learning Resources** • Types of resources: Introduction, Significance, criteria for selecting resources, benefits and limitations of Smart board, LCD projector, PPT slides, Posters, Meta cards, News prints, White board, Flip chart, Chart paper, Television
7	**Educational Objectives** • Types • Characteristics • Components • Classification of learning objectives (domains)
8	**Educational sessions/Lesson Plan** • Components • Steps **Continuing Professional Development** • Stages • Types
9	**Evaluation and Test Construction** • Tools and techniques of student evaluation • Types of test construction • Check list and rating scale • OSCE and OSPE
10	**Curriculum Development** • Importance of curriculum • Sources of curriculum • Determinants of curriculum • Types of curriculum • Process and steps of curriculum development

7. HEALTH SERVICE MANAGEMENT

Unit	Contents
1	**Introduction** • Leadership and management • Principles of management • Process /functions of management • Managerial roles
2	**Theories** • Scientific management theory • Behaviorism /human relation theory • Theories of motivation • Contingency/situational management • Role theory

3	**Planning** • Planning process/steps • SWOT analysis • Long term and short-term plans of MOHP
4	**Health Policy and Strategies** • Policy and strategies • Formulation of effective health policy • National health policy and programs on major health problems
5	**Health Policy and Strategies** • Health act of Nepal • Strategies related to nursing • Minimum service standard • Resource management
6	**Organizational Communication** • Role of communication in organization • Method of effective organizational communication
7	**Organizational conflict** • Sources, types. stages • Effects of conflict, Reaction of conflict • Conflict resolution
8	**Supervision** • Purpose and process of supervision • Methods and tools • Factors contributing to effective supervision • Principles of supervision • Characteristics of good supervisor
9	**Controlling** • Purpose, benefits of controlling • Areas of control • Controlling process and techniques
10	**Risk management, Utilization Management** • Infection control • Nursing standard • Methods for maximizing performance

11	**Quality Assurance in Health** • Quality care at point of delivery • Quality assurance process • Nursing audit
12	**Decision Making and Problem Solving** • Types • Models • Factors affecting in decision making • Tools • Process of solving managerial problems
13	**Resource Management** • Management of resources: Time, material, information, human and money • Budgeting process and auditing • Financing health care: Methods (Public, private and insurance) and impact on health • Methods of economic evaluation for planning health care programs
14	**Disaster Management (Mass Casualty Management)** • In community • Hospital
15	**Health Care Delivery System** • Federal level • Provincial level • Local level

8. **WOMEN HEALTH AND DEVELOPMENT**

Units	**Contents**
1	**Women's Status and Rights** • Status of women: Global, regional and national • National and International bills of rights: Human rights, women's rights and reproductive rights and constitutional rights of women
2	**International and National Initiatives on Women's Health and Development** • International Initiatives: Mexico, Vienna, Beijing+20, Copenhagen, Cairo, Islamabad, Washington along with agreements and conventions • National initiatives adopted by Nepal government in influence of global initiatives: National Women's Commission, Ministry of Women, Children and Social Welfare
3	**Factors affecting health and development of the women** • Geographical • Environmental • Education • Economic • Gender • Socio cultural

	• Health habits and lifestyle • Access to health services • Political • Legal
4	**Genetics in Reproduction** • Chromosome and cell division • Pattern of inheritance • Common chromosomial anormalités : Downs syndrome, Cri-du-chat syndrome, • Turner's syndrome, fragile syndrome, Klinefelter's syndrome • Polygenic and multi factorial disorder • Legal, ethical and psychological issues in genetics • Parental guidance and genetic counseling • Pre conceptional counseling and care
5	**Embryology** • Ovum, sperm, fertilization • Development of inner cells • Derivatives of germ layers • Human-embryo, age, measurement and stages of development • Development of different body systems and their anomalies • Risk factors of congenital anomalies • Management of common congenital anomalies
6	**Reproductive Health** • Concept of sexual, reproductive, maternal, newborn and adolescent sexual and reproductive health (ASRH) • Status of maternal mortality and morbidity: National and international • Components of reproductive health: Updates of family planning, emergency contraception, prevention and management of abortion, post abortion counselling, STIs and HIV/AIDS and management of infertility • Reproductive health program and interventions in different levels • Safe motherhood and RH Act and Regulation
7	**Safe Motherhood** • Health of women during reproductive age and beyond (elderly women) • Gender-based violence • Sustainable development goals on women's health • Philosophy and models of midwifery care • Scope of practice of midwife. • ICM code of ethics for midwifery practice • ICM Global core competences • National and international professional organizations • Obstetric care categories: BEmONC (Basic Emergency Obstetric and

	Neonatal Care) and CEmONC (Comprehensive Emergency Obstetrical and Neonatal Care) • National policies/guidelines/strategies/protocols on safe motherhood
8.	**Normal Pregnancy** • Human reproductive system: anatomy and physiology and fetal skull: landmark and diameters • Fetal development • Physiological changes during pregnancy • Antenatal assessment • Interpretation of diagnostic tests • Assessment of fetal wellbeing • Needs and care of the woman during pregnancy • Birth preparedness and complication readiness (BPP/CR)
9	**Normal Labor** • Physiological changes and management of labor according to stages • Needs and care of woman during labor according to stages • Mechanism of labor • Partograph/ Labor care guide • Pain management • Episiotomy and perineal repair • Immediate care of newborn • Evidence based practices (KMC, helping baby breathe- HBB) • Respectful Maternity Care • Various child birth practices/ birth positions
10	**Normal Puerperium** • Physiological changes during puerperium • Management of normal puerperium • Physiology of lactation and breastfeeding • Baby friendly hospital initiatives (BFHI) • Postnatal assessment and visit • Needs and care of woman during puerperium • Neonatal care: Essential newborn care, national neonatal health policy and strategy
11	**Maternal Nutrition** • Nutrition for pregnant woman • Nutrition for lactating woman
12	**Drugs in Obstetrics** • Teratogenic drugs • Tocolytics • Analgesics and sedatives • Anticonvulsants • Oxytocics • Anti-hypertensive • Respiratory stimulants • Anthelmintics

	• Haematemics • Others drugs: Vitamin K, vitamin A, chlorohexidine, mesoprostol, carbopost, epidosin tranexamicacid
13	**Management of High Risk Pregnancies** • Common medical diseases associated with pregnancy: Anemia diabetes, cardiac disorders, renal disorders and hepatic disorders • Hypertensive disorders: Pregnancy induced hypertension, pre-eclampia, eclampsia, HELLP Syndrome and DIC • Bleeding in early pregnancy: Molar pregnancy, ectopic pregnancy, abortion • Bleeding in late pregnancy: Placenta previa, abruption placenta • Rh iso-immunization and ABO incompatibility • Intra-uterine fetal death (IUFD) • Hyperemesis graviderum • Hydramnios: Polyhydramnios and oligohydramnios, amniotic fluid index (AFI) • Multiple pregnancies • Preterm and postterm pregnancy
14	**Management of Abnormal Labor** • Ineffective uterine contraction • Induction and augmentation of labor • Obstructed labor and its consequences • Prolonged labour • Cephalo-pelvic disproportion • Preterm premature rupture of membranes (PPROM) and premature rupture of membranes (PROM) • Common malposition and malpresentation: Breech, Occipito posterior, Face, Brow, Shoulder and compound presentation • Obstetric procedures: Vacuum extraction, forceps delivery, caesarean section, destructive operations
15	**Obstetric Emergencies and Life Saving Measures** • Ruptured ectopic pregnancy • Cord prolapse • Vasa previa • Shoulder dystocia • Obstructed labour • Uterine rupture • Use of magnesium sulphate in eclampsia • Postpartum hemorrhage and helping mother survive (HMS) • Amniotic fluid embolism • Shock • Retained placenta: Manual removal of placenta • Inversion of uterus

	• Vacuum extraction • Breech delivery • Manual vacuum aspiration
16	**Management of Postpartum Complications** • Postpartum eclampsia • Puerperal sepsis • Maternal mental disorder • Thrombosis and thrombophlebitis • Urinary complications • Breast problems-engorged breast, mastitis, breast abscess, sore/cracked nipple • Suppression of lactation
17	**Maternal and Perinatal Mortality** • Status of maternal and perinatal death in Nepal • Role of the health professionals to avert perinatal deaths • Bereavement of the loss and care of the couple and family members • Perinatal mortality audit • Maternal perinatal death review (MPDR) and maternal perinatal death surveillance and response (MPDSR)
18	**Newborn Problems** • Low birth weight babies • Neonatal infections: neonatal sepsis, opthalmia neonatorum, congenital syphilis, HIV/AIDS • Major causes of neonatal death • Respiratory conditions: Asphyxia neonatorum, meconium aspiration syndrome, pneumonia • Newborn resuscitation, HBB • Neonatal jaundice, icterus neonatorum • Hemolytic disease • Birth injuries • Common congenital anomalies • Neonatal heart disease • Neonatal seizure • Breastfeeding alternatives for mother with HIV • Newborn danger signs and referral • Policies and strategies related to newborn health
19	**RTI/STI/HIV** • Review of disease

	• TORCH Infection • National strategies and implementation of programme • Counseling: VCT, MTCT • Antiretroviral therapy
20	**Gynecological Morbidities** • Congenital malformations of female genital organs • Menstrual disorders • Premenstrual syndrome • Climacterium • Pelvic organ prolapse • Obstetric fistula • Pelvic inflammatory disease • Endometriosis, adenomyosis • Benign and malignant disorders of breast, uterus, ovary, vagina and cervix • Abortion: Status and legal provision of abortion in Nepal, safe abortion services, comprehensive abortion care (CAC), post abortion care (PAC) and manual vacuum aspiration
21	**Administration and management of obstetrical and gynaecological units** • Design and layout • Human resources • Equipment and supplies • Infection prevention and control • Standard safety measures Quality assurance
22	**Infertility/ Sub fertility** • Primary and secondary infertility • Diagnostic tests • Assisted reproductive technology
23	**Emergency and Critical Care on Obstetrics and Gynaecology** • Initial assessment and stabilization • Cardiovascular disorder of pregnancy • Respiratory disorder during pregnancy • Hemorrhage during pregnancy • Infection in pregnancy • Hepatic disorders in pregnancy

	• Intensive care in obstetrics and gynecology and its environment
24	**Ethical and Legal Issues in Maternal and Neonatal Health** • Informed and high-risk consent • Legal sue and filing the case • Documentation • Bill of rights • In-vitro fertilization

8. ADULT HEALTH NURSING

Units	Contents
1	**Neurological System** • Anatomy & Physiology, neurological assessment & diagnosis etio-pathophysiology, clinical features, complications, management, preventions and prognosis of : • Stroke/CVA • Head injury and unconscious patient • Neurological infections • Degenerative disorders • Peripheral neurological disorders • Auto immune disordres (GB Syndrome, mysthania gravis)
2	**Respiratory System** Anatomy & Physiology, assessment and diagnostic investigations Etio-pathophysiology, clinical features, complications, management, preventions and prognosis of: • Acute & chronic airway obstructive diseases. • Disorders of lower airways • Parenchymal and Pleural disorders • Interstitial & occupational diseases • Acute pulmonary disorders Care of patient with chest tube drainage and ventilator
3.	**Cardiovascular System** Anatomy & Physiology, assessment, diagnostic investigations & interventional cardiac procedures, etio-pathophysiology, clinical features, complications, management, preventions and prognosis of • Hypertensive Disorders • Structural and valvular heart diseases • Dysrhythmias & Heart block • Coronary Artery Diseases (MI, Angina) • Peripheral Vascular Diseases • Hematological disorders Cardiac Surgery and cardiac rehabilitation
4	**Gastro- intestinal system** Anatomy & physiology, assessment and diagnostic investigation etio-pathophysiology, clinical features, complications, management, preventions and prognosis of • Disorders of oral cavity, salivary gland & esophagus • Stomach and intestinal disorders

	• Peptic ulcer diseases/acid peptic diseases • Hepato- biliary disorders • Anorectal disorders Gastric intubation & parental nutrition
5	**Urinary System** Anatomy & physiology, assessment and diagnostic investigation, etio-pathophysiology, clinical features, complications, management, preventions and prognosis of: • Urinary tract infections • Urinary calculi • Voiding dysfunctions, care of patient with urinary catheters • Renal disorders • Chronic kidney diseases including Renal failure • Traumatic disorders of urinary system Renal replacement
6	**Musculoskeletal System** Anatomy & physiology, assessment and diagnostic investigation, etio-pathophysiology, clinical features, complications, management, preventions and prognosis of: • Metabolic bone disorders osteoporosis, osteomalacia and Paget's disease • Musculoskeletal infections • Musculoskeletal trauma Occupational related Musculo skeletal disorders & rehabilitation Orthopedic surgeries and Musculoskeletal care modalities /interventions
7	**Endocrine system** Anatomy & physiology, assessment and diagnostic investigation, etio-pathophysiology, clinical features, complications, management, preventions and prognosis of: • Pituitary gland disorder • Thyroid and parathyroid gland disorder • Pancreatic disorders including diabetes • Adrenal gland disorders
8	**Sensory disorders** Anatomy & physiology, assessment and diagnostic investigation, etio-pathophysiology, clinical features, complications, management, preventions and prognosis of: • Eye disorder • Nose disorder • Ear disorder • Throat disorder • Skin disorder: skin allergy, skin infection and burn
9	**Oncology** • Assessment and diagnostic investigation • Common cancers • Pain assessment and management • Treatment modalities • Therapeutic communication and breaking bad news • Grief and bereavement • End of life care, Hospice and palliative care
10	**Infectious disease**

	Assessment and diagnostic investigation, Etio-pathophysiology, clinical features, complications, management, preventions and prognosis of: • Malaria and Kalazar • Filariasis and leprosy • Dangue and typhoid • Tuberculosis • Scrub typhus & chikungunya • Corona virus infection, Zica, & Ebola
11	**Rehabilitation** • Principle of care in rehabilitation • Aims and stages of rehabilitation
12	**Developmental task** • Developmental task of young, middle and late adulthood
13	**Gerontological Nursing** • Aging theories • Common physical, cognitive and psychological problems of elderly • Health maintenance and health promotional activities • National policies, strategies plans and programs for geriatric problems
14	**Emergency Nursing** • Disaster and triage • Medico -legal issues • Common problems disorders attending emergency: • Common procedure used in emergency

8. CHILD HEALTH NURSING

Unit No.	Contents
1	**Introduction to Child Health and Child Health Nursing** • Child health and factors affecting child health • Child health nursing and trends and issues in child health nursing • Philosophy of child health care • Legal, Ethical and cultural issues in child • Child right and child labour act • National policies, strategies and plan on child health: IMNCI (CB and FB), national nutrition/immunization and other priority program • Child Health Programme: Under five clinics, baby friendly hospital initiative (BFHI), school health programme, child to child programme • Communication with children • Play therapy/ activities for children • Role of child health nurse
2.	**Genetics and Embryology** • Chromosome and cell division, Pattern of inheritance • Common congenital and chromosomal abnormalities • Parental guidance and genetic counseling
3	**Growth and Development of Children** • Principles of growth and development • Factors affecting growth and development • Tools of assessment of growth and development • Theories related to growth and developments: Freud, Erikson, Piaget, and Kohlberg

4	**Newborn/ Neonatal Period** • Assessment of newborn • Immediate extra-uterine adjustment • Characteristics and Physiological changes of newborn baby • Gestational assessment of newborn baby (physical and neuro-muscular maturity) • Immediate and Essential newborn care including neonatal resuscitation • Common health problems of the newborn and their management • Care of high-risk newborn • PMTCT
5	**Infancy Period** • Developmental tasks • Growth and development (physical, motor, cognitive, psycho-sexual and social) • Major developmental milestones • Health promotion of the infant • Health problems during infancy and their management limit setting and discipline
6	**Toddlerhood Period** • Growth and development (physical, motor, cognitive, psycho-sexual and social) • Major developmental milestones • Health promotion • Behavioral problems and their management
7	**Pre-school Period** • Growth and development (physical, motor, cognitive, psycho-sexual and social) • Major developmental milestones • Health promotion • Behavioral problems and their management
8	**School-age Period** • Growth and development (physical, motor, cognitive, psycho-sexual and social) • Major developmental milestones • Health promotion • Behavioral problems and their management
9	**Adolescence** • Growth and development (physical, motor, cognitive, psycho-sexual and social) • Major developmental milestones • Health promotion • Behavioral problems and their management • Adolescent sexual and reproductive health (ASRH) strategy
10	**Assessment and Care of Hospitalized Child** • Assessment of Child: History taking, physical and developmental and nutritional assessment • Pain assessment and management: Non-pharmacological and pharmacological • Care of hospitalized child: Stress of illness and hospitalization in children and its minimization
11	**Fluid and Electrolyte Disorders**

	• Body fluids and electrolyte balance, acid-base balance • Fluid and Electrolytes imbalance: Etio-pathology, clinical features, investigation, management and complication • Acid base imbalance: Etio-pathology, clinical features, investigation, management and complication
12	**Respiratory Disorders:** Etio-pathology, clinical features, investigation, management and complication of: • Upper and lower respiratory tract infection (pneumonia) • Pulmonary TB • Bronchial asthma • Bronchiectasis • Respiratory distress syndrome (Acute and Severe)
13	**Cardio Vascular and Hematological Disorders:** Etio-pathology, clinical features, investigation, management and complication of: • Congenital heart diseases: Cyanotic and acyanotic • Congestive cardiac failure • Collagen disorders: Rheumatic fever, rheumatic heart disease, endocarditis • Vascular dysfunction: Kawasaki disease, systemic hypertension, pulmonary artery hypertension and shock • Hematological disorder: Anemia, thrombocytopenia, haemophilia, thalassemia • Immuno- suppressive disorders: SLE, HIV
14	**Gastrointestinal disorders:** Etio-pathology, clinical features, investigation, management and complication of: • Structural defect: Cleft lip or cleft palate, esophageal atresia & tracheoesophageal fistula, ileal atresia, hernias • Obstructive disorder: Intestinal obstruction, hypertrophic pyloric stenosis, intussusceptions, mal-rotation and volvulus, ano-rectal malformation. • Disorder of motility: Diarrhea, constipation, Hirschsprung's disease, gastroesophageal reflux • Malnutrition • Malabsorption syndrome • Other GI disorders: Appendicitis, parasitic infestations, Viral hepatitis, oral thrust, gastroenteritis, diarrhea
15	**Endocrine disorders:** Etio-pathology, clinical features, investigation, management and complication of: • Disorders of pituitary gland: Hyper and hypopituitarism, precocious puberty, delayed puberty, diabetic insipidus • Disorders of thyroid gland: Goiter, hyper and hypothyroidism • Disorders of Parathyroid gland: Hyper and hypoparathyroidism • Disorders of adrenal gland: Acute adrenocortical Insufficiency, Chronic adrenocortical insufficiency, Cushing's syndrome, congenital adrenal hyperplasia. • Disorders of Pancreas: Diabetes mellitus
16	**Central Nervous and Neuromuscular Disorders:** Etio-pathology, clinical features, investigation, management and complication of: • Congenital disorders: Anencephaly, encephalo-meningocele,

	hydrocephalus, microcephaly • CNS infections: Meningitis, encephalitis, Japanese encephalitis, brain abscess • Seizure disorders: Epilepsy, febrile convulsion, • Head and spinal cord injuries • Neuromuscular disorders: Cerebral palsy, spina-ifida, muscle dystrophy, Guillain Barre syndrome, tetanus, acute flaccid paralysis
17	**Genitourinary Disorders:** Etio-pathology, clinical features, investigation, management and complication of: • Urinary tract disorders: urinary tract infection, glomerular nephritis, nephrotic syndrome, obstructive uropathy, renal failure (acute and chronic), polycystic disease. • Congenital disorders: Hypospadiasis, epispadiasis, bladder extrophy, inguinal hernia, phimosis, hydrocele, ambigious genitalia, undescended testes.
18	**Musculoskeletal Disorders:** Etio-pathology, clinical features, investigation, management and complication of: • Traumatic tissue injuries: Fracture, care of child in the cast and traction • Congenital disorder: developmental dysplasia of the hip, clubfootMusculoskeletal disorder: Kyphosis, lordosis, scoliosis, Osteomyelitis, juvenile arthritis
19	**Eye, Ear, Nose and Throat Disorder:** Etio-pathology, clinical features, investigation, management and complication of: • Disorders of eye: Vitamin A deficiency, conjunctivitis, cataract, stye, strabismus, corneal ulcer, refractive error, nystagmus, visual impairment and blindness • Disorders of ears: Otitis media, mastoiditis, hearing impairment and deafness. • Disorders of nose: Epistaxis, sinusitis, deviated nasal septum, nasal polyps. • Throat problems: Tonsillitis, pharyngitis, sinusitis, Croup's syndrome
20	**Integumentary Disorders and Burn:** Etio-pathology, clinical features, investigation, management and complication of: • Skin problems: Scabies, dermatitis, impetigo, folliculitis, cellulites, allergy, Stevenson Johnnson syndrome, herpes zoster and simplex • Burns and its management
21	**Malignant Disorders:** • Haemoto-oncology disorders: Etio-pathology, clinical features, investigation, management and complication of ALL, AML, Lymphomas • Other childhood cancers: Wilm's tumor, Neuroblastoma, Retinoblastoma, soft tissue sarcoma, Rhabdomyosarcoma. • Different modalities for management of malignant disorders: Chemotherapy (including intrathecal), Radiotherapy, Immunotherapy, surgery • Palliative and hospice care including pain management • Oncology emergencies: Tumor lysis syndrome, Neutropenia, etc.

22	**Chronic and Life-threatening Illness and End of Life Care** Common chronic and life threatening illnesses • Reaction of child and family with chronic and life-threatening condition, disabilities • Breaking bad news • Coping process • Care of child at the end of life • Counseling and grief process
23	**Infectious Diseases and Global Emerging Health Issues** • Infectious Diseases: Typhoid, dengue, Kalazar, malaria, flue and influenza • Emerging health issues: SARS, COVID, H1N1. Ebola virus disease, Chikungunya
24	**Pediatric Emergencies and Intensive care** • Pediatric Emergencies: Respiratory and cardiac arrest, shock, drowning, poisoning, accidents/injuries, chocking, suffocation, foreign body aspiration and insect, dog and snake bite • Intensive care nursing Principle of intensive care, planning and organization of intensive care unit (NICU, PICU, SICU), Management of children with critical conditions
25	**Pediatric Procedures** • Suction, • ANPLS (basic and advanced) • Intubations, • Phototherapy, • Radiant warmer, • Oxygen and aerosol therapy, • Ventilator (management of patient in ventilator including different modes), • Incubator care • CVP measurement, • Exchange transfusion and umbilical vessel catheterization, • Gastrostomy feeding • Gastrojejunal feeding, • Blood specimen collection (arterial puncture, hell prick, scalp vein) • Chest tube insertion and care, • Restraints • Care of special gadgets

8. COMMUNITY/PUBLIC HEALTH NURSING

Unit No.	Contents
1.	**Introduction to Community Health Nursing** • Determinants and dimensions of health • Trends and development of community health nursing: National and International • Current status, socio-cultural issues and challenges related to community health nursing • Principles and scope of community health nursing practices

2	**Theories and Models in Community Health Nursing and their Application in Service Delivery at Community Settings** • Precede-proceed model, • health belief model, • epidemiological model, • iceberg theory • Levaell and Clark's theory, • Milio's framework of prevention, • Salmon White's construct for public health nursing, and • Theory of reasoned action (Fishbein)
3	**Community Diagnosis & intervention** • Community assessment: Dimension of community assessment • Community survey tool • Social mapping • Methods of community assessment: Participatory Rural Appraisal (PRA), Rapid Rural Appraisal (RRA), Participatory Learning and Action (PLA), Focus Group Discussion (FGD) • Component of community diagnosis • Process of community diagnosis • Reporting tool: ISBAR (identify, situation, background, assessment, recommendation) • Implementation of health action (micro and Macro)
4	**Family Health Nursing** • Introduction of family health • Family as a care unit • Principles of Family Health Nursing. • Theories for working with families in the community: Family system theory, family development and life cycle theory and bio-ecological system theory • Application of nursing process in family health nursing • Family coping index • Typology of family health problems (health deficit, health threat and foreseeable crisis) • Role and responsibilities of community health nurse in family health nursing
5	**Ethical and Legal Issues in Community Health Nursing** • Client's right • Ethical and legal principles in community health nursing • Ethical issues in community health nursing practice • Legal issues in community health nursing practice
6	**Population and Demography** • Relationship between growth rate and population • Demographic cycle

	• Trends of population: Global, Regional and National • National population policy • Factors affecting population growth • Population theory: Demographic transition theory, optimum theory of population and Malthusian theory • Concept of well-being: Standard of living, level of living and quality of life • Human Developmental Index (HDI) • Population pyramid of Nepal and its implication on health, health planning and health service utilization • Vital and health statistics: Introduction, importance and uses • Health indicators: Introduction, types and uses
7	**Environmental Health and Safety** • Change in ecosystem and its impact on health • Current major environment problems in Nepal • Factors affecting ecosystem in climate and health: Urbanization, industrialization, and its impact on air, water, and soil • Climate change, global warming, greenhouse effect, acid rain and ozone layer depletion and pollution and its effect on health • Sustainable cities and communities
8	**Nutrition and Health** • Classification & types of nutrients • Food additives: Food fortification, and food adulteration • Food preservation and storage • National nutrition policies and strategies of governmental and non-governmental organizations related to nutrition promotion. • Multi-sectorial nutrition plan • Socio-cultural aspects of nutrition and its relation to health • Common nutritional problems in Nepal (Micro and Macro nutrient) • Nutritional assessment methods (Direct and indirect methods) • Food act/legislation, issues, and quality control: Food safety national standards
9	Ma**ternal and Child Health (MCH)/Reproductive Health (RH)** • Concept of MCH and MCH services • Evolution of RH • Components of Reproductive health package • National Reproductive Health Guidelines and strategies • Reproductive health programs launched by the government of Nepal • Major problems related to reproductive health • Community based integrated management of neonatal and childhood illnesses (CB-IMNCI) • Facility based integrated management of neonatal and childhood illnesses (FB-IMNCI)
10	**Family Welfare Program**

	• Introduction • Causes of population explosion • Development of family planning program in Nepal • Methods of contraception • Family planning counseling, education, communication and services • Gender biasness and its impact on population and future Role of community health nurse in family welfare program
11	**Genetics and its Relation to Community Health Nursing** • Chromosome and cell division • Pattern of inheritance • Polygenic or multifactorial disorders • Common chromosomial anormalités : Down's syndrome, Cri-du-chat syndrome, Turner's syndrome, fragile syndrome, Klinefelter's syndrome. • Genetic disorders including mental retardation • Genetic counseling and role of community health nurse.
12	**Information, Education and Communication (IEC)** • Concept of health information, education and communication • Concept of behavior change communication (BCC) • Principles, methods and medias of health education • Role of community health nurse in health education process
13	**National Health Policies, Strategies and Programs** • Current national health policies, strategies and guidelines • National social security scheme and health insurance • Nepal Health Sector Program • Long term health plan • Five-year plan • National health programs: National Immunization program, national HIV/AIDS program, national malaria/Kala-azar, control program, national tuberculosis and leprosy control program and national nutritional program and national family planning program • Community outreach/mobile clinic • Supervision, monitoring and performance appraisal of community health workers • Health record and reporting system • Role and responsibilities of community health nurse in health care delivery
14	**School Health** • Concept of school health • Objectives and aspects of school health • Common health problems in school children • School mental health program • Governmental strategies of school health program • School health activities in Nepal including teacher's training • School health nurse working guideline, 2076 • School coordination committee

	• School health profile • Inter-sectorial coordination for school health • Role and responsibilities of school health nurse • Role of school management committee in School Health Program.
15	**Occupational Health** • Principles of occupational health • Occupational health and safety environment • Protective measures for rescuers and health care providers • Common occupational hazards, diseases and preventive measure • Current labor act (focus on employment, occupational safety and health) • Role of ILO and WHO in occupational health • Personal protective equipment (PPE) • Role and responsibilities of community nurse in occupational health
16	**Disaster Management in Community** • Impact of disaster and rapid response • Disaster preparedness and mitigation • Disaster act in Nepal • Disaster management • First aids emergency in disaster • Post traumatic counselling • Rapid response team and their role in disaster management in community level
17	**Community Mental Health** • Promotion of mental health and prevention of mental illness • Community based mental health rehabilitation • Mental health welfare programs • Role of community health nurse in the community mental health
18	**Care of Elderly in Community** • Demographic situation of elderly • Aging process and changes • Theories of aging • Physiological, psychological, and cognitive changes of elderly • Common health problem of elderly in Nepal • Health promotional activities • Home based care for elderly • Geriatric rehabilitation and counseling • Constitution, act, plan and programs related to senior citizen of Nepal • Role and responsibilities of community health nurse in the promotion and maintenance of the health of elderly people
19	**Nursing Care of Special Group** • Street children, Child abuse

	• Human trafficking • Disabled people: Physically and mentally • Introduction of Hospice care • Hospice care in community
20	**Community Participation and Development** • Concept of community participation • Levels of community participation • Obstacles in community participation • Basics of holistic and dignity enhancing community development • Essential element of community development • Need of community development • Ways to mobilize the community • Process of community development • Features of community development programs and their application in health programs
21	**Program Planning and Management** • Planning process • Cost studies applied to program management • Advanced planning methods and evaluation models • Program evaluation • Importance
22	**Public Private Partnership (PPP)** • Polices and strategies • Technique and benefit of PPP • Activities PPP, public relationship
23	**Global Health** • Global health care issues • Relationship between globalization and health • Global health issues/burden of disease and priorities • Concept of global quarantine • Health tourism • Migration and its impact on health care of refugee • International health agencies affecting global health: Bilateral agencies and INGOs

8. MENTAL HEALTH /PSYCHIATRIC/AND PSYCHOLOGY NURSING

units	Contents
1	**Introduction to mental health and mental illness** • Terminologies used in mental health and mental illness • Characteristics of mentally Healthy Individual • Myths / Misconception of Mental Illness • Principles of Psychiatric Nursing • Causes/ predisposing factors of mental illness

	• Signs/symptoms of mental illness • Roles of psychiatric / mental health nurse • Stress, crisis, and coping- Grief, • Psychological First Aid • Classification of mental illness- ICD 11, DSM
2	**Therapeutic Relationship** • Therapeutic relationship- Definition, Phases, Barriers • Therapeutic impasses – its prevention, management • Therapeutic communication techniques- Different therapeutic communication techniques • Process recording
3	**Legal Aspects of Psychiatric Nursing** • Ethical and legal aspects in psychiatric nursing, Clients rights • Scope of psychiatric nursing • Issues/ Challenges of Psychiatric Nursing • Admission Procedure – Types, Nurses' responsibilities during admission of mentally unhealthy clients • Discharge Procedure – Types, Nurses' responsibilities during discharge of mentally unhealthy clients • Standards of Psychiatric Nursing, Trends and Issues in mental health nursing • National Mental Health Strategy, National initiatives on mental health • Mental Health Act – its components
4	**Personality Development** • Personality – Characteristics, Determinants of Personality development • Theories of personality development- Sigmund Freud and its application • Erik Erikson – Stages, application • Harry Stack Sullivan, Kohlberg theory • Jean Piaget -- Stages, application
5	**Personality disorders** – Definition, Predisposing factors • Cluster A - Types, clinical features, treatment and management • Cluster B - Types, clinical features, treatment and management • Cluster C - Types, clinical features, treatment and management
6	**Mental Health Assessment** • Psychiatric history taking- Components of history taking Principle of interview • Mental Status Examination • Components of Mental Status Examination • Mini Mental health assessment • Psychological Tools used in mental health assessment
7	**Mood Disorders** • Major depressive disorders - predisposing factors, features, treatment and management • Bipolar disorders, mania-- predisposing factors, features, treatment and

	management
8	**Thought disorders** • Schizophrenia -- predisposing factors, features, treatment and management • ATPD, persistent delusional disorders - predisposing factors, features, treatment and management • Schizoaffective disorders – predisposing factors, features, treatment and management
9	**Neurotic and Stress related Disorders** • Generalized anxiety disorders - predisposing factors, features, treatment and management • Phobic anxiety disorders – Definition, causes, symptoms, treatment and nursing management • Panic disorders -- Definition, causes, symptoms, treatment and nursing management • Obsessive compulsive disorder (OCD)- Definition, causes, symptoms, treatment and nursing management • Conversion disorders- Definition, causes, symptoms, treatment and nursing management • Dissociative disorders - Definition, causes, symptoms, treatment and nursing management • Post-traumatic stress disorders -- Definition, causes, symptoms, treatment and nursing management
10	**Psychosomatic Disorders** • Bronchial asthma., migraine headache, • Irritable bowel syndrome, Ulcerative colitis – Clinical features, Management
11	**Somatoform disorders** • Hypochondriasis, Persistent pain disorder- Clinical features, treatment and management
12	**Childhood Behavioral and Adolescent Mental Disorders** • Autism - Introduction, etiology, clinical features, Treatment and management • Intellectual disability (Mental retardation) - Introduction, etiology, clinical features, Treatment and management • Suicide – Define, predisposing factors, clues of Suicidal ideation, management, prevention of suicide • Separation anxiety disorders – features, and management • Bedwetting – Clinical features, treatment and management • Attention deficit hyperactivity disorder (ADHD)- Clinical features, treatment and management • Conduct disorders—predisposing factors, clinical features, treatment and management • Anorexia Nervosa and Bulimia Nervosa – Predisposing factors, clinical features , management
13	**Sleep disorders** • Night mare, night terror • Sleep walking • Narcolepsy

14	**Maternal Mental Health Disorders** • Premenstrual syndrome • Postnatal psychosis • Postnatal blues, Postnatal depression • Post-menopausal syndrome
15	**Mental health problems in old age** • Dementia • Elderly suicide, Sun down syndrome, Empty nest syndrome • Depression in old age—Predisposing factors, features • Treatment and nursing management
16	**Human Sexuality and Psychosexual Disorders** • Sexual orientation disorders- Lesbian, Gay, bisexual, transsexual, Queer, and many more (LGBTQ+) • Treatment and nursing management
17	**Human Sexuality and Psychosexual Disorders** • Sexual dysfunction – Premature ejaculation, impotence, dyspareunia • Paraphilia – Definition, types and management
18	**Substance Use Disorders** • Opioid Use disorders – Predisposing factors, features, complications, treatment and nursing management • Alcohol Use disorders - Predisposing factors, features, complications, treatment and nursing management • Sedatives, stimulants – Predisposing factors, features, complications, treatment and nursing management • Cannabis Use disorder, hallucinogens use disorder • Prevention of substance use disorders, Methadone Maintenance Therapy
19	**Psychiatric Emergencies** • Care of violent and aggressive behavior • Panic attack • Delirium tremens • Convulsion/Hysterical fits • Neuroleptic malignant syndrome • Drug and alcohol Withdrawal • Lithium toxicity • Catatonic Stupor
20	**Treatment Modalities in Psychiatry** • Psychotropic drugs- antidepressant, • Antipsychotic, • Anxiolytic, • Mood stabilizers- antimanic drugs • Anticonvulsants, anti-parkinsonism • Electroconvulsive therapy (ECT) • Psychotherapy- group therapy, family therapy • Psychodrama, psychosurgery and its uses • Counseling • Restraining, seclusion • Milieu therapy

	• Motivational Enhancement Therapy • Motivational interview
21	**Alternative therapies** • Guided imagery therapy, biofeedback • Meditation, therapeutic touch and massage • Progressive relaxation therapy
22	**Psychosocial Rehabilitation** • Psychiatric rehabilitation – goals, principles, steps, approaches, components • Occupational rehabilitation therapy • Halfway home, sheltered workshop, correctional home • Family mental health – foster family care, family focused care
23	**Care of Special and Vulnerable Group** • Abuse and neglect- Consequences /Problems, Management • Care of the survivors of trauma and violence • Counseling to HIV/AIDS, terminally ill patients, and caretakers • Gender based violence • Breaking bad news

24	**Community Psychiatry**
	• Community mental health - Deinstitutionalization -- Trends of care
	• Community mental health program – Definition, importance of community mental health program in Nepal
	• Components of community mental health program- School mental health Components of community mental health – School mental health – Definition, goals, activities.
	• Importance of school mental health program, Teachers' role in school mental health
	• Community participation in mental health
	  ○ Level and approaches of community participation
	  ○ Application of Community participation
	  ○ Approaches of community participation

25	**Administration and management of Psychiatric Units** • Staffing pattern / lay out Staffing pattern / lay out • Staff requirement • Quality assurance in Psychiatric Nursing

8. CRITICAL CARE NURSING

Units	Contents
1.	**Concept of critical care nursing** • Terminologies used in critical care • History of critical care and critical care nursing • Purposes of critical care unit • Models of critical care • Criteria for admission and discharge of patients in critical care units • Principles of critical care setting • Roles and responsibilities of critical care nurse • Patient and family response to critical care setting • Ethical and legal issues in critical care setting

	○ Ethical principle, ethical dilemma, end of life care, breaking bad news, palliative care ● DNR/DNI/DNV
2	**Hemodynamic monitoring of patient in critical care setting** ● Monitoring system ○ Non-invasive, minimal invasive and invasive: purpose, indications, complications, nursing consideration ○ Different types of alarm (visual, acoustic, text alarm) ○ troubleshooting of the alarms ○ Alarm fatigue
3	**. Assessment of the patient in critical care setting** ● Initial assessment - ABCDEF approach (A-Airway, B-breathing, C-circulation, D-disability, E-Exposure (Head to toe assessment), F-family engagement) ● Illness severity assessment (MEWS (modified early warning score) and qSOFA (quick sequential organ failure assessment), SOFA, APACHE Scoring
4	**Delirium, sedation and pain management** ● Delirium ○ Introduction, types, risk factor, clinical features ○ Assessment of ICU delirium ○ Management (Delirium ABCDEF bundle) and prevention of ICU delirium ● Sedation: Introduction, goal, level of sedation ● Pain assessment and management of critically ill patient
5	**Respiratory system** ● Review of Anatomy and physiology of respiratory system ● Etiology, pathophysiology, clinical manifestation, diagnostic evaluation, management and complications of various respiratory disorders ● Chronic obstructive pulmonary disease (COPD), bronchial asthma, interstitial lung disease (ILD), pneumonia ● Etiology, pathophysiology, clinical manifestation, diagnostic evaluation, management and complications of various respiratory disorders ○ acute respiratory distress syndrome (ARDS), pulmonary hypertension, pulmonary embolism, pulmonary edema, pneumothorax, respiratory failure ● Nursing management of patient underlying thoracic surgery (pneumonectomy, thoracic decortication etc.)
	Nursing management of patient undergoing various procedures such as; ○ Nebulization ○ Chest physiotherapy ○ Suctioning of airway ○ Arterial blood gas (ABG) analysis and its interpretation ○ Fiber-optic bronchoscopy, broncho-alveolar lavage ○ Chest tube drainage
	Tracheostomy care and decannulation Principles and methods of Oxygen Therapy ● Methods of Oxygen Delivery: NIV, CPAP/ BIPAP and High flow oxygen therapy ● End-tidal, Capnography, oximetry in respiratory system monitoring and patient transportation

6	**Mechanical ventilation** ● Mechanical ventilation; indication, basic parameters and initial settings, waveforms, methods and modes, alarm setting and troubleshooting ● Complications of mechanical ventilation ● Nursing care and management of patient in mechanical ventilation ● Weaning and liberation from mechanical ventilation
7	**Urinary system** ● Review anatomy and physiology of urinary system ● Etiology, pathophysiology, clinical manifestation, diagnostic evaluation, management and complications of various urinary disorders ○ Glomerulonephritis, Acute kidney injury (AKI), Chronic kidney disease (CKD), Lupus nephritis ● Indications, techniques, complications and management of vascular access for dialysis: ○ Internal Jugular or Access (a type of CVC) ○ Femoral Access (a type of CVC) ○ Permanent Cathter (a type of CVC) ○ Arteriovenous (AV) fistula or graf • Indications, contraindications, principles and management of Renal Replacement Therapy: ○ Intermittent Hemodialysis, CRRT, SLED ○ Peritoneal Dialysis • Indications, methods, physiological implications & complications of plasmapheresis Perioperative management of renal surgery and renal transplant **Fluid and electrolyte management** • Acid base balance and disorder • Fluid response assessment and management in ICU • Dyselectrolytemia • Crystalloids, colloids and blood products
8	**Neurological system** ● Review the anatomy and physiology of neurological system ● Neurological assessment: ○ GCS, RASS Score, CAM – ICU, ○ Delirium Screening Checklist (ICDSC)
	● Sensory System & Motor System: Power, Tone, Bulk, Reflexes ● Physiology of intracranial pressure, pathophysiology, monitoring, investigation and management of increased Intracranial pressure (ICP)
	● Etiology, pathophysiology, clinical manifestation, diagnostic evaluation, management and complications of various neurological disorders ○ Infectious brain disorders; meningitis, encephalitis, ○ Stroke Brain injuries; traumatic brain injury (TBI), subarachnoid hemorrhage (SAH) ● Etiology, pathophysiology, clinical manifestation, diagnostic evaluation,

	management and complications of various neurological disorders ○ spinal cord injury ○ Autoimmune/genetic brain disorders; Guillain-Barre (GB) Syndrome, myasthenia gravis, multiple sclerosis ○ Seizure disorders; status epilepticus ● Nursing management of patient undergoing neurosurgery and spine surgery ● Nursing management of unconscious patient,Brain death and preparation for organ donation
9	**Gastrointestinal system** ● Anatomy, physiology (Review) ● Etiology pathophysiology, diagnosis, complication and management of various GI problems including ○ GI bleeding, Intra-abdominal hypertension and abdominal compartment syndrome, Acute abdomen (obstruction, perforation, ischemia), Pancreatitis, Abdominal injury ● Etiology pathophysiology, diagnosis, complication and management of various GI problems including ● Hepatic-biliary: Acute chronic fulminant and chronic hepatic dysfunction, cirrhosis, hepatic encephalopathy, Liver transplant ○ Intra-abdominal pressure monitoring ○ Management of Intra-abdominal tubes and drains ○ Management of patient undergoing abdominal paracentesis, gastrostomy, jejunostomy ○ Management and care of ileostomy and colostomy ● Management of patient undergoing major GI surgeries
10	**Nutritional support in critical care** ● Assessing nutritional status of patient in critical care ● Nutrition score ● Nutritional requirement of patient in critical care including essential elements supplement ● Feeding techniques (bolus feed, intermittent feed, continuous feed, cyclic feed) ● Enteral nutrition ○ Feeding tubes ○ Nursing Consideration ● Parenteral nutrition ○ Total parental nutrition (TPN) ○ Nursing Consideration ○ Feeding intolerance (refeeding syndrome) ○
11	**Cardiovascular system** ● Review the Anatomy and Physiology of Cardiovascular System (BP, HR, SV, EF, SVR, CO, CPP, Cardiac cycle) ● Pathophysiology of hemodynamic failure, diagnosis of various types of shock, prevention, investigations, resuscitation strategies ● Etiology, pathophysiology, clinical manifestations, diagnostic evaluation, management, complications and prevention of**:** ○ Hypertensive crisis ○ Aortic Dissection

	○ Aneurysm ○ ACS (UA, STEMI and NSTEMI), Arrhythmias, inflammatory heart diseases, Cardiomyopathies, Heart Failure, Valvular Heart Disease, Pericardial Effusion and Cardiac Tamponade, congenital heart disease in adult, Eisenmenger Syndrome. ● Non invasive and Invasive Cardiac Investigations including ECG, ECHO, TMT, DST, CAG, Holter, ABP , CTA, Cardiac MRI, PCI ○ Mechanical support of the cardiovascular system including Intra Aortic Balloon Pumps (IABP), ventricular assist devices (VAD) and ECLS (Extra corporeal life support, e.g. ECMO), Pacemakers, AICD/ CRTD ● Nursing management of patient undergoing minimum invasive procedure: PTCA (Percutaneous trans-luminal mitral commissurotomy), PTMC, electrophysiology study and radio frequency ablation), pacemaker, balloon valvuloplasty, Pericardiocentensis, device closure. ● Management of patient undergoing major cardiac surgeries: Open hear surgery and Closed Heart Surgery. ○ ECG interpretation ● BLS, ACLS ○ Cardioversion and defibrillation
12	**Hematological disorders** Etiology, pathophysiology, clinical manifestations, diagnostic procedures, complication management of ● Anemia, Leukopenia, Thrombocytopenia, Leukemia, Multiple Myeloma. ● Management of patients with Neutropenic fever and sepsis in these patients. ● Hemato-oncological emergencies. ● Blood transfusion: including the complications of transfusions, adverse transfusion reactions and critical care management of massive transfusion. ● Indications, technique of Peripherally Inserted Central Catheter (PICC) Line Insertion and its management.
13	**Metabolic - endocrine disorders** ● Review the synthesis, secretion, functions of: Insulin, thyroid hormones, glucocorticoids. ● Glucose metabolism in critically ill patient ○ Etiology, clinical features, diagnosis, monitoring, and management of Endocrine emergencies including Diabetes mellitus, Diabetic Keto-acidotic (DKA) ○ Hyperosmolar Non-Ketotic Coma ○ Hyper- and hypo-thyroidism, Thyroid Storm, myxedema coma ○ Etiology, pathophysiology, clinical manifestations, diagnostic procedures, complication management of: Cushing syndrome and Addison disease ○ Glucose monitoring and Insulin therapy (review)
14	**Trauma** ● Triage, primary and secondary survey. ● Etiology, pathophysiology, clinical manifestations, diagnostic procedures, complication ,prevention and management of**:** ● Polytrauma, Fat embolism, Compartment syndrome

	● Chest Trauma including Pneumothorax, Cardiac Tamponade, Rib fracture and Flail Chest ● Abdominal trauma ● Head and spinal cord injuries ● Burn: types, pathophysiology, clinical features, complications, diagnosis and management ● Stabilization and management of severe penetrating and blunt trauma victims, and polytrauma ● Management of Epidural Analgesia for Thoracic injuries and flail chest ● Rapid imaging techniques and use of ultrasound and echocardiography in trauma patients including FAST (Focused Assessment of Sonogram for Trauma) protocol ● Stabilization needs and evaluation of patient safety prior to, during and after transport of critically ill patient
15	**Infectious diseases** ● Basic microbiology of infectious agents. ● Pathophysiology of immune system response to severe infections, the systemic inflammatory syndrome, and to repeated infections and/or chronic critical illnesses ● Sepsis and septic shock (including all type of shock) ● Etiology, pathophysiology, clinical features and management of following infectious disease/conditions: ● Tetanus, Rabies, Malaria, Dengue, Tuberculosis, Etiology, pathophysiology, clinical features and management of following infectious disease/conditions: ● SARS ,Covid-19, Influenza, Scrub typhus, Leptospirosis, Brucella
16	**Toxicology** ● Etiology, pathophysiology, clinical manifestations, diagnostic procedures, complication ,prevention and management of ○ Common toxic ingestions including Organophosphate, Paracetamol, ● Triage of multi-toxic patients, prevention of healthcare worker exposure and team safety ● Etiology, pathophysiology, clinical manifestations, diagnostic procedures, complication ,prevention and management of ● Salicylate, Calcium Channel Blockers, Beta Blockers, Tricyclic antidepressants, Aluminum Phosphide, Cyanide.
17	**Obstetric critical care** ● Physiological changes (respiratory, cardiovascular, renal) in pregnancy and implications for management of critical illnesses ● Etiology, pathophysiology, clinical manifestations, diagnostic procedures, complication and management of hemorrhage (in early pregnancy, ectopic pregnancy, Antepartum hemorrhage, Postpartum hemorrhage) ● Etiology, pathophysiology, clinical manifestations, diagnostic procedures, complication and management of preeclampsia, eclampsia, amniotic fluid embolism, cardiomyopathy, HELLP syndrome, liver failure, renal failure Causes, clinical manifestations, diagnosis and management of cardiovascular arrest • Cardiovascular resuscitation • Physiological endpoints Pharmacological therapies Etiology, pathophysiology, clinical manifestations, diagnosis and management of common

	pediatric infections leading to critical illness: Pneumonia**,** meningitis, encephalitis, sepsis

18	**Drugs used in critical care**
	• Describe pharmacokinetics and pharmacodynamics, indications, mechanism of action, doses, adverse reactions, drug interaction and nursing implications of different drugs used in patient in critical care
	  • Antimicrobials: antibiotics, antifungal, antiviral agents
	  • Sedatives and analgesics
	  • Muscle relaxants
	  • Anti-hypertensive agents
	  • Antiarrhythmic agents Medications for ICU delirium
	  • Anticonvulsants
	  • Anticoagulants
	  • Fibrinolytic agents
	  • Insulin therapy
	  • Vasopressors, inotropes

19	**Bio-medical gadgets and supplies used in critical care unit**
	● List the bio-medical gadgets used in critical care; uses, care and handling
	  ○ Patient monitors
	  ○ Syringe pumps
	  ○ Infusion pumps
	  ○ Pressure monitoring kit (A-line, CVP)
	  ○ Fluid warmer
	  ○ Sequential compression devices (SCD)
	  ○ Patient warming system (Bair huggers)
	  ○ Renal replacement therapy (Hemodialysis machine, continue renal replacement therapy machine (CRRT))
	  ○ Extra-corporeal membrane oxygenation (ECMO)

20	**Purposes, principles and practices of Infection Prevention and Control:**
	• Hand Hygiene, Isolation Practices
	• Healthcare associated infections (HAI), Standard precaution and isolation based precaution
	• Infection Control Measures in ICU:
	  • ICU Disinfection
	  • Sterilization/Disinfection of ICU equipment
	  • Sampling protocols: Blood, Tissue sampling
	  • Screening for Infections in ICU environment: Swabs from equipment, humans, machines, cultures from air exposure, etc.
	  • Immunization prophylaxis in patient and healthcare worker
	• **Wound and drain care**
	• **Patient blood management (PBM)**

21	**Restraints in critical care – pharmacological and non-pharmacological** **Transportation of the critically ill patients**

8. GENERAL NURSING

Units	Contents
1	**Developmental Tasks of:** • Newborn/ Neonatal Period • Infancy Period • Toddlerhood Period • Pre-school Period • School-age period • Adolescence • Young adult • Middle adult • Elderly adult
2	**Common pediatric emergency condition and their management** Downing, chocking foreign body aspiration, poisoning
3	**Assessment and Care of Hospitalized Patient** • Assessment of patient: History taking, physical and developmental and nutritional assessment • Pain assessment and management: Non-pharmacological and pharmacological • Care of hospitalized patient: Stress of illness and hospitalization and its minimization
4	**Disorders of Respiratory System:** Etio-pathology, clinical features, investigation, management and complication of: • Airway disorders and parenchymal and pleural disorders • Common diagnostic investigation of respiratory system disorders • Specific procedures related to respiratory system
5	**Disorders of Cardio-Vascular System:** Etio-pathology, clinical features, investigation, management and complication of: • Arrhythmias • Conduction abnormalities • Coronary artery diseases • Structural, infectious and inflammatory cardiac disorders • Congenital heart diseases • Peripheral vascular diseases • Lymphatic disorders • Hypertensive disorders • Hematological disorders
6	**Disorders of Gastro-Intestinal System:** Etio-pathology, clinical features, investigation, management and complication of: • Structural defect: Cleft lip or cleft palate, esophageal atresia & tracheoesophageal fistula, ileal atresia, hernias • Obstructive disorder: Intestinal obstruction, hypertrophic pyloric stenosis, intussusceptions, mal-rotation and volvulus, ano-rectal malformation. • Disorder of motility: Diarrhea, constipation, Hirschsprung's disease, gastroesophageal reflux

	• Malnutrition • Malabsorption syndrome • Oesophegeal disorders • Gastric and duodenal disorders • Gastric intubation and parental nutrition • Hepato-biliary disorders • Pancreatitis
7	**Central Nervous and Neuromuscular Disorders:** Etio-pathology, clinical features, investigation, management and complications of: • Congenital disorders • CNS infections • Seizure disorders: Epilepsy, febrile convulsion • Head and spinal cord injuries
8	**Disorders of Musculoskeletal System:** Etio-pathology, clinical features, investigation, management and complication of: • Traumatic tissue injuries: Fracture, care of patient in the cast and traction • Infections and inflammatory of musculoskeletal system • Metabolic disorders of bone • Muscular dystrophy
9	**Disorders of Reproductive System:** Etio-pathology, clinical features, investigation, management and complications of: • Prolapse of pelvic organs • Vesico-vaginal fistula • Endometriosis • Abnormal uterine bleeding • Breast disorders
10	**Disorders of Urinary System:** Etio-pathology, clinical features, investigation, management and complication of: • Primary glomerular diseases • Acute kidney injury and chronic kidney disease • Polycystic kidney disease • Prostatic enlargement • Urolithiasis
11	**Disorders of Endocrine System:** Etio-pathology, clinical features, investigation, management and complications of: • Pituitary gland disorders • Thyroid and parathyroid glands disorders • Diabetic Mellitus • Adrenal gland disorders • Disorders of ovaries and testes
12	**Disorders of Sensory Organs and Integumentary Disorders:** Etio-pathology, clinical features, investigation, management and complications of: • Eye disorders • Ear, nose and throat disorders • Skin problems: Scabies, dermatitis, impetigo, folliculitis, cellulites, allergy,

	zoster and simplex • Burns
13	**Infectious Diseases:** Etio-pathology, clinical features, investigation, management and complications of: • Parasitic infections: Malaria, kalazaar, filariasis • Bacterial: Typhoid, tuberculosis, trachoma, leprosy • Viral infections: Dengue, HIV, rabies • Emerging Diseases: Corona virus infection, chikungunya, ebolavirus infection
14	**Oncology Nursing** • Common Cancers • Treatment Modalities and Nursing Intervention • Communication and Breaking Bad News • End of Life Care • Bereavement • Hospice and Palliative Care • Bereavement • Hospice and Palliative Care
15	**Gerontology Nursing** • Aging Theories • Normal age related changes and health maintenance in different body systems • Geriatric assessment • Common physical, cognitive, problems • Common psychosocial problems • Quality of Life of older Adults
16	**Emergency Nursing** • Disaster and Triage • Epidemic Disaster • Common health problem attending emergency • Poisoning • Medico legal issues • Common procedure used in emergency • Emergency Crash Cart Management
17	**Safe Motherhood** • Health of women during reproductive age • Sustainable development goals on women's health • National policies/guidelines/strategies/protocols on safe motherhood • Obstetric care categories: BEmONC (Basic Emergency Obstetric and Neonatal Care) and CEmONC (Comprehensive Emergency Obstetric and Neonatal Care)
18	**Normal Pregnancy** • Anatomy and physiology female pelvis and fetal skull: landmark and diameters • Fetal development • Physiological changes during pregnancy • Antenatal assessment • Diagnostic tests and interpretation

	• Needs and care of the woman during pregnancy • Assessment of fetal wellbeing • Birth preparedness and complication readiness (BPP/CR)
19	**Normal Labor** • Physiological changes and management of labor according to stages • Needs and care of woman during labor according to stages • Respectful Maternity Care • Various child birth practices/ birth positions • Mechanism of labor • Partograph • Pain management • Episiotomy and perineal repair • Immediate care of newborn • Evidence based practices (KMC, Helping baby breathe- HBB
20	**Normal Puerperium** • Physiological changes during puerperium • Management of normal puerperium • Physiology of lactation and breastfeeding • Nutrition for post-natal mother • Baby friendly hospital initiatives (BFHI) • Postnatal assessment and visit • Needs and care of woman and infant during puerperium • Neonatal care: Essential newborn care, national neonatal health policy and strategy
21	**Psychiatric Nursing** • History taking**,** mental status examination, care of the patient after ECT • Schizophrenia • Mood disorders • Mania • Generalized anxiety disorders • Post traumatic disorders • Anxiety disorders • Conversion disorders • Suicide • Community mental health • Personality disorders • Drug/alcohol abuse • Borderline PD • Antisocial PD