



Competency-Based Curriculum Pre-service Training for Registered Nurses (RNs)

Republic of Liberia

**Revised by:
The Liberian Board for Nursing &
Midwifery**

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Cecelia Morris
Chair-person
Liberian Board of Nursing & Midwifery

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Introduction

Nursing education in Liberia dates back to 1921. The Phebe Hospital and School of Nursing graduated its first class of three in 1926; it was a major event. In honor of the occasion, the Senate closed its doors and all of its members attended the function.

Since then, many more schools have been opened. In 1945, the Tubman National Institute of Medical Arts (TNIMA) graduated its first class, and in 1947, the Ganta program was approved by the Liberian Board for Nursing. In 1965, Cuttington University College established the first baccalaureate program for nurses. In 1988, the Mother Pattern College of Health Sciences was accredited by the Board.

The right to practice nursing in Liberia was initially enacted to law in the year 1949, with the organization of the Liberian Board of Nursing and Midwifery. The Board has the responsibility to assess the strengths and weaknesses of the programs, and accredit them. Recognizing the need to review the curricula to meet the changing health care needs of the country, the Board requested the South East Region Primary Health Care Project (SERPHC) to undertake this task.

The request was timely as it coincided with the SERPHC project's curriculum efforts to standardize and strengthen mid-level health workers' curricula, particularly in primary health care. A group of faculty members from the diploma and collegiate R.N. program, along with the members of the Board and the SER-PHC training team undertook the major task of reviewing and revising existing curricular in February, 1987.

Since then, the curriculum had not been revised. The Board, realizing the need to revise the curriculum, organized a two-day workshop in September, 2000 to review and revise the Nursing and Midwifery curricula. Due to financial problems faced by the Board, this exercise was not completed. The Board requested assistance from the Ministry of Health for the curriculum revision. In 2001, the Ministry provided financial assistance to the Board to revise the curriculum for nursing and midwifery schools in Liberia.

The methodology used was to look at the health needs of the community, the job descriptions of nurses and midwives, the national health plan, and epidemiological reports from the various hospitals and clinics. These documents were the basis for the revision of the curriculum. The principles for accreditation were discussed and reinforced and those relevant to the curriculum process are:

- The educational philosophy and purposes of the school should be formulated and accepted by the faculty; the philosophy should be clearly stated and well defined as to the experiences offered to the students
- Each member of the faculty should be well prepared in his or her special area
- There should be provision for the continuous development, implementation and evaluation of curriculum by the faculty group

- The institution should have adequate clinical resources in terms of availability, scope, variety and physical facilities, so as to provide efficient quality nursing care
- The institution should make provisions for a conducive environment and atmosphere for good instruction learning
- The library should be adequate and should provide students and faculty with up-to-date materials to provide valuable means of extending knowledge and understanding, as well as developing themselves professionally at their leisure time

In 2007, the United Nations Funds for Population Activities through the Family Health Division, Ministry of Health and Social Welfare provided some funds to the Liberian Board for Nursing and Midwifery to review the curriculum and revise it with issues affecting the health care delivery system, especially issues connected to the high maternal and child mortality rates in Liberia.

The Participants at the curriculum revision conference were members of the Liberian Board for Nursing and Midwifery, instructors from the various nursing institutions, WFP Nutrition Unit, Malaria Control, TB and Leprosy Control, EPI Division and NACP. The tedious but interesting challenge was accomplished at the end of the month's intensive sessions. The competency based approach to curriculum development was adopted using the five step curriculum development process.

The effort was very worthwhile and the architects of the curriculum were pleased with the results. The revised curriculum has a very strong component in nutrition, immunization, EMOC, reproductive health and primary health care, a minimum of redundancy, and interesting and relevant teaching methodologies with more emphasis on participatory learning. It was an opportunity to share ideas and to standardize the curriculum.

In 2009 with the RBHS Project, the curriculum was reviewed and updated, in a very participatory and inclusive process, looking at the updated job description and core competencies. Moreover, the choice of subject matter was also informed by the results of the task analysis. The 2010 final draft version was completed, approved by the LBNM and given to existing schools so they could use it and submit comments before final printing.

2009-2013 Curriculum Strengthening Process- Registered Nurse (RN)

Background

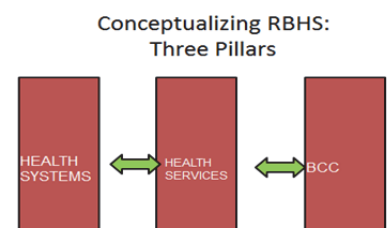
Five years after emerging from prolonged and devastating civil wars, Liberia is beginning to make some degree of measurable progress on a range of economic and social outcomes. The impact of the conflicts on the health sector were as severe as on any other and included loss of staff, destruction of infrastructure, disruption of health programs, lack of resources and resultant increased dependence on international donors.

The Ministry of Health and Social Welfare (MOHSW) has emerged as one of the strongest and most effective government entities, demonstrating strong leadership and vision, developed a sound National Health Policy and Plan, collaborated effectively with its partners and is taking the lead on setting national policies, strategies, and plans. The cornerstone of the Liberian National Health Plan is the MOHSW's Essential Package of Health Services (EPHS), which outlines the essential services to be provided at each level of the health system.

Early indications suggest that there have already been improvements in some important health outcomes. Infant and child mortality have reduced considerably since earlier in the decade and now compare favorably with regional rates. However, the maternal mortality ratio, which remains elevated at a troubling level and is still one of the highest in the world.

The Rebuilding Basic Health Services (RBHS) project, A Joint collaboration between USAID and the Ministry of Health and Social Welfare, is the United States government's major initiative in support of the MOHSW. Funded by USAID, RBHS is a partnership among JSI Research and Training, Jhpiego, the Johns Hopkins University Center for Communication Programs (JHU CCP), Management Sciences for Health (MSH), and Six NGOs partner: Africare, EQUIP, IRC, MERCI, MTI, PSI. Implementation of RBHS is over a 5-year (2008-2013) period and is guided by a three-pronged strategic approach:

- Strengthening and extending **service delivery** through performance-based grants to non-governmental organization (NGO) partners (IRs 1 and 3);
- Strengthening Liberia's **health system** in the areas of human resource management, infrastructure, policy development, and monitoring and evaluation (IR 2); and
- Preventing disease and promoting more healthful behaviors through **behavior change communication** and community mobilization (IRs 1, 2 and 3).



In addition, the RBHS project has specific responsibilities in the areas of maternal and child health, family planning/reproductive health, malaria, HIV, TB, community level activities and water and sanitation.

Pre-service Strengthening Initiative/RBHS

Jhpiego was brought on as a key implementing partner to lead the Pre-service Strengthening Initiative by JSI, the prime contractor, in sharing technical expertise in reducing maternal and neonatal morbidity and mortality through evidence-based best practices and to do so primarily by strengthening 2 educational institutions, TNIMA and EBSNM, focusing on Registered Nurses (RNs), Certified Midwives (CMs), Physicians Assistants (PAs) and Environmental Health Technicians (EHTs), so that the long term capacity of Liberia to deliver qualified professionals will affect the exceedingly high rates of maternal and neonatal morbidity and mortality. These two institutions provide educational programs for Certified Midwives and in addition TNIMA provides educational programs for other cadres including, PAs, RNs, MLTs and EHTs. After the first year of implementation, the MOHSW through Dr. Bernice Dahn, Deputy Minister/CMO requested RBHS to add revision of the curriculum for training Medical Laboratory Technicians (MLTs) developed by TNIMA through an independent consultation.

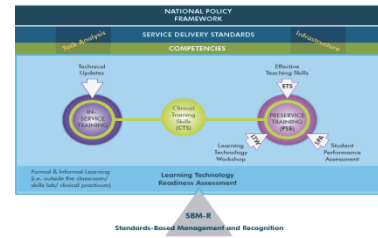
The Pre-service Strengthening Initiative aims to improve, the pre-service training of direct entry mid-level health care Providers; the teaching skills of instructors and clinical preceptors, the educational environment at learning institutions & Clinical sites (health facilities) and the overall management of these institutions. Standards-Based Management and Recognition (SBM-R), a quality performance improvement process developed and being use by Jhpiego was initiated. Major activities included Effective Teaching Skills training, technical updates, follow-up, mentoring and monitoring for faculty and clinical preceptors; developing and equipping the computer and science labs; simulation center/skills lab and library; revising and harmonizing the various curricula, updating and making them appropriate for present realities in Liberia.

Curriculum Revision/Update/Harmonization

In developing the curriculum for training students to become RNs, all stakeholders including those in the Education and Training National Working Group and others, including TNIMA, the Liberian Board for Nursing and Midwifery (LBNM), Liberian Midwifery Council, Liberian Nursing Association, Division of Nursing and Midwifery/MOHSW, University of Liberia, USAID, WHO, UNICEF, etc., participated in a five step participatory and inclusive process to develop the competency-based curriculum for training RNs as follows:

- **Updated Job Description and Development of Core Competencies:** The initiation of this process coincided with the process by the LBNM to revise the job description for Registered Nurses (RNs) and the development of the regulatory framework and core competencies. The Education and Training Advisor, RBHS led the process supported by the LBNM and the first draft of the job description and core competencies were adapted using resources from the Liberian and international community, especially the core competencies of the International Confederation of Nurses and the West African College of Nursing (WACN).

- Developing Pre-service and Clinical Quality Improvement Standards:** Utilizing the Pre-service Implementation Guide, the pre-service education initiative, RBHS adapted the Standards-Based Management and Recognition (SBM-R) process which was developed in 2005 by Jhpiego and it is being used to improve the performance of two educational institutions, the Tubman National Institute of Medical ARTs (TNIMA) and the Esther Bacon School of Nursing and Midwifery (EBSNM) and the six health facilities serving as clinical sites for training students from both institutions.



SBM-R is a four step process of **Setting standards** of performance in an operational way, **Implementing the standards** through a streamlined and systematic methodology, **Measuring progress** to guide the improvement process toward these standards and **Recognizing the achievement** of the standards. It focuses on desired level of performance and quality to be attained. As one of its first activities in the initiative, RBHS led an exercise in April 2009 involving diverse stakeholders in training health workers to develop a set of **pre-service educational performance standards** based on international standards, including, the world Federation of Medical Education and WHO pre-service education standards in four areas, **classroom and performance assessment, clinical practice and assessment, infrastructure, and institution management**. The pre-service education standards have been adopted by the Liberian Board of Nursing and Midwifery as national pre-service education standards for nursing and midwifery education in Liberia.



In the process of strengthening health care service delivery at health facilities serving as clinical sites for the two schools, RBHS again led the process of developing **clinical performance standards** involving all key stakeholders, particularly those involved in delivery of health services. The clinical standards were adapted from internationally recognized clinical standards, including those from Afghanistan, Tanzania and Ghana, for the Liberian context. Based on the BPHS, standards were developed for infection prevention, management of health facilities and 17 clinical content areas that were sub-components of the six BPHS components (maternal and newborn health; child health; adolescent sexual and reproductive health; communicable diseases; mental health; and emergency care). RBHS and the MOHSW have adapted these standards and are using minimum required standards in ten areas for quality improvement in a four step quality improvement process of the MOHSW: identifying the standards, measuring the standards, implementing the standards and recognizing the standards.

- **STTA – Validation & Harmonization Workshop:** Dr. Peter Johnson, Director, Global Learning, Jhpiego, as STTA led in the harmonization of the curriculum with 32 clinical leaders, educators, and administrators representing education institutions, Health facilities, MOHSW, regulatory bodies and associations focusing on harmonization of the Nursing Curriculum with others in West Africa as mandated by the WACN for all members countries across the region, in a three step process:
 - Validation of the draft Liberian Nursing core competencies
 - Reviewing of each course syllabus- 33 course syllabi were matched to one or more core competencies, broad objectives, suggested teaching methods and resources needed discussed in brainstorming and small group working sessions.
 - Assembling a logical program of study for RNs that would prepared them with appropriate international standards to meet the needs in Liberia.
 - The updated job description, core competences and RN three years Curriculum Outline was presented and approved by the LBNM and endorsed by the MOHSW.
- **Conducting a Task Analysis:** Using the updated job description and core competencies, and in consultation with relevant Jhpiego staff and stakeholders, the Pre-service Strengthening Initiative developed the tool for conducting the task analysis. This task analysis was conducted primarily to inform updates to the core competencies, curricula and job descriptions of the RNs for improvements in pre-service education (PSE) that ensures a streamlined, competency-based education process that is linked to job readiness for an entry-level position and job descriptions that are in line with national needs, as well as, to provide some evidence for the services that are included in the BPHS and/ or adjustments that may be appropriate. The Task analysis tool for the RNs contained 264 tasks spanning infection prevention, health facility management and the 17 priority health areas specified in the six components of the BPHS: maternal and newborn health, child health, reproductive and adolescent health, communicable disease control, mental health and emergency care services. These 19 areas had been outlined as critical to promoting public health in Liberia. The task items, which represents the tasks that RNs are expected to perform, were selected after consulting the BPHS and the clinical standards developed by the Education and Training National Working Group (ETN WG) and other key stakeholders. The ETN WG reviewed the selected tasks used to develop the survey. The tool followed the same format. For each task, the respondent was asked three major questions:
 - How often the task was performed: **Frequency** (Never/Rarely/Daily/Weekly/ Monthly)
 - Were you trained to performed the task: **Training Status** (Yes/No)

- Where were you trained to performed the task: **Training Location** (School/Job/Both)

The findings indicated that RNs were performing malaria related task most frequently (83%) and mental health task least frequently (5%). RNs in the clinic were also performing management related task in clinics and health centers when only 33 % reported pre-service training in management related tasks. RNs also reported that were expected to perform diagnosis and prescription functions that they were not trained for.

The analyzed data was utilized as key evidence for revising the job description, core competencies, and curriculum in ensuring that there are relevant to meeting national needs. With the approval of all stakeholders including the MOHSW and The LBNM it was agreed that the revised updated competency-based curriculum for training RNs is to include all frequently performed task as well as task that enhance quality of life.

- **Development of Syllabi for Courses and Validation of the Curriculum:** Individual course syllabus was developed for all courses in the curriculum by international and national content/subject matter expert, including experts at Jhpiego, the Johns Hopkins University, the ETNWG, including faculty of the eight nursing and midwifery schools, A.M. Dogliotti College of Medicine/UL and others.
 - **Validation Workshop:** A validation workshop was done and the sequencing, title, as well as, each course syllabus in the curriculum was reviewed. The objectives of the workshop were: 1) to review and endorse the revised updated job description and draft core competencies for RNs and 2) to confirm the adequacy of the draft curriculum for meeting training needs of RNs. Comments/changes, including additions, primarily due to the findings of the task analysis were agreed upon and noted.
- 6. Finalization of the curriculum:** All the comments were incorporated into the courses and the finalization process included sharing the course syllabus with experts and incorporating comments. The curriculum was again circulated to all stakeholders and Dr. Mertens, based on a request from TNIMA, led TNIMA faculty in a process of final review. These and comments received from others have been incorporated into the 2011 final draft curriculum and circulated for use by the schools to report comments back before final printing.
- In 2013, the LBNM conducted a meeting of all existing schools to share experience and learning from utilizing the curriculum. By that time, all existing schools given the 2011 draft had graduated at least a class using the entire new curriculum. At this meeting, all realized the need to update some content, like the new information on Malaria in Pregnancy (MIP) and reproductive health. Comments, changes and additions were made considering observed gaps in course content, sequencing, and formatting. At the end of the meeting, it was resolved that the next revision will take place in 2016.

As a result of this inclusive and dynamic process, included in this updated competency-based curriculum for training RNs are updates from the National Health Policy and components from the Essential Package of Health Services (EPHS), 2011-2021, which is the present *framework developed by the MOHSW to continue improving basic health services provision in a post-conflict setting. The EPHS focuses on strengthening certain key areas that continue to perform weakly in the current system and the scaled-up of and additional services for all levels of the health care delivery system in order to provide more comprehensive services to the Liberian people.*

This curriculum emphasizes updated material on high impact evidence-based interventions and appropriate technology for improve maternal neonatal and child health, EmONC, essential care of the newborn, prematurity care , prevention of Postpartum hemorrhage, Adolescent Sexual and Reproductive Health, HIV/AIDS and TB, including PMTCT and DOTS, Malaria case management and prevention, emphasizing ACT, IPT, use of RDT and early treatment, especially for under-fives, Nutrition, especially the ENAs, IMNCI, non-communicable disease and neglected tropical diseases management, Mental health, including Management and Prevention of Sexual and Gender based Violence, as well as Family Planning counseling and service, including healthy timing and spacing of pregnancy. Regarding community health the curriculum stresses the importance of community participation and working **with** in community directed programs and not working for the community in the transformative approach using adult/dialogue education principles.

Emphasis is also placed on multi mix teaching and learning methods for interactive presentations that promote learning and the importance of student performance assessment is highlighted in best practices assessments recommendations in this curriculum for both theory and practical.

Background

Demographics: High proportion of young people at 54% (National Health Policy & Plan, 2007 – 2011), low nurse-patient ratio 1327 RN to 3.4million (Country Situational Analysis Report, 2011) high under five mortality rate 110 per 1, 000 live births, high maternal mortality rate 994 per 100, 000 live births, low life expectancy at birth 45.3 years, high teenage pregnancy rate 31% of 15 – 19 years, Population living below the national poverty line (2,400 Kcal/per day per adult) 63.8% (UNICEF Liberia Basic Indicators http://www.unicef.org/wcaro/wcaro_liberia_fact_CP_indicators.pdf. Accessed on July 30, 2012)

Priority Health Problems: Communicable diseases (HIV/AIDS, Malaria, Tuberculosis etc.), non-communicable diseases (Obesity, Diabetes, Hypertension, etc.), neglected tropical diseases (Buruli ulcer, Leprosy, Chagas disease etc.), and mental health.

Target Learners: High school diploma and WAEC certificate holders who meet the admission criteria

Nursing and Midwifery Workforce Management: Nurses are **frontline** service providers in the community and hospital levels. They provide preventive, health promotion and curative care to all population groups. They also provide care at all levels of health and participate in the management of health systems. Rehabilitative care is also their prerogative.

Rationale: To bridge the gaps among the various curricula that exists in the Liberia. It will also guide the development and revision of curricula in nursing pre-service institutions in Liberia.

Vision Statement: To produce competent nurses who will improve and promote the health status of the Liberian population

Mission Statement: The mission of the curriculum is to train and produce competent nurses who will provide quality nursing care to clients with different needs (physical, emotional, spiritual, and social) in health facility and community.

Introduction: The main ideas of nursing paradigm are client, health, nursing, environment, and education.

Health: Health is a state of physical, mental, social, and spiritual well-being and not merely the absence of disease or infirmity. The health of individuals is affected by their genetic makeup, personal behaviors, and their internal and external environments. The health status of individuals, families, populations, and communities is a result of dynamic interaction between humans and their external environments.

Nursing: Nursing is a discipline and profession which purpose is to assist the client to attain, regain, and retain optimal health through evidence-based education and practice. It applies scientific knowledge and use of judgment and critical thinking in the facilitation

of health, promoting social justice, influencing public policies, and helping to meet the need of society to improve the health care delivery system of Liberia. The roles of the nurse include providing care, teaching, advocating, managing, and researching.

Client: Diverse individuals, families, groups, communities, and/or population across the lifespan, that partner in therapeutic relationship with the nurse. Within the context of one's social-cultural backgrounds, individuals perceive and respond to stimuli as integrated wholes. Clients maintain basic human integrity through the process of dynamic continuous interaction with their internal and external environment.

Environment: The environment in which individuals exist is crucial to their learning, health, and well-being. It includes the cultural, social, political, spiritual and economic influences on the individual. A conducive environment considers both internal and external factors, such as effective customer service, adequate infrastructures, appropriate student-faculty ratio, appropriate learning and teaching methodologies, and professional student-faculty relationships that influence learning and the provision of quality health care. Monitoring and modifying the interactions of the individual within the environment is a required and continuous process.

Nursing Education: Nursing education is centered on humanistic and scientific principles. The educational nursing environment supports and promotes the growth and self-sufficiency of individual learners as beginning professionals and life-long learners.

We as nurse educators believe that learning is a multifaceted process through the acquisition and integration of knowledge, development of skills, the clarification and formation of values and attitudes that results in behavioral change. The process is focused on independent critical thinking, group interaction, leading students to reach correct conclusion and stressing the use of learned ideas in new situations.

Conceptual Framework: The aim of nursing education is to provide a curriculum in a climate that fosters life-long learning, and resources where students can acquire values, knowledge, and skills used in practicing theory-based nursing. We are challenged to create and implement a curriculum that will facilitate the development of our future nurse leaders in theory, research development and practice.

The discipline model was adopted from several theorists; however, King's Interaction theory was used as the basis for the development of the discipline for the Liberian Board for Nursing and Midwifery curriculum. The nursing faculty to convey the image of nursing to the students uses these theories. Courses are selected based on the strands derived from the philosophy, objectives and conceptual framework.

Imogene King's theory of goal attainment shows the relationship of operational systems (individual, interpersonal systems, group such as nurse – patient) and social systems (such as educational systems, health care systems).

King identifies the following concepts as essential knowledge for nurses to utilize in nursing situations. These concepts include interaction, perception, communication, transaction, role, stress, growth and development time and personal space.

Interaction: a process of perception and communication between person and environment and between person and person, represented by verbal and nonverbal behaviors that are goal- directed. Each individual in an interaction brings different knowledge, needs, goals, past experiences and perceptions that influence the interaction.

Perception is defined as the “each person’s representation of reality”. According to King, this concept includes the import and the transformation of energy, and processing, storing and exporting of information. Perceptions are related to past experiences, concepts of self, socioeconomic groups, biological inheritance and educational background.

Communication is a process where information is given from one person to another either directly or indirectly. Communication is the information component of the interactions. The exchange of verbal and nonverbal symbols between nurse and client and environment is communication.

Transaction is purposeful interactions that lead to goal attainment. It is observable behavior of human beings interacting with their environment. It is the valuation component of human interaction.

Role is a set of behaviors expected of persons occupying a position in a social system; rules that define rights and obligation in a position. If the expectations of a role differ, then conflict and confusion exists. This may lead to decrease effectiveness of the nursing care provided.

Stress is a dynamic state whereby human beings interact with the environment. Stress involves an exchange of energy and information between the person and the environment for regulation and control of stressors. It is an energy response of an individual to persons, objects and events. An increase in stress of individual interacting can narrow the perceptual field decrease rationality. And increase in stress may also affect nursing care.

Growth and Development: King defines growth and development as continuous changes in individuals at the cellular, molecular, and behavioral level of activities, conducive to helping individuals more towards maturity.

Time is defined as a sequence of events moving onward to the future, time is duration between one event and another as uniquely experience by each human being.

Space is defined as existing in all directions and is the same everywhere. Space is the immediate environment in which the nurse and client interact.

The overall assumptions of king’s theory are that the focus of Nursing is human being interacting with their environment leading to a state of health for individuals, which is and ability to function in social roles. (Marriner,1989; King, 1981). The King’s model asserts that nurses interact and mutually set, explore and agree to achieve goals. Goal attainment represents outcomes. King’s theory offers insight into the nurse’s interaction

with individuals, groups and the environment. It highlights the importance of clients' participation in decision-making that influences care and focuses on both the process of nurse-client interaction and the outcome. (Berman, Snyder, Kozier & Erb, 2008).

The goal of nursing is to use communication to help client re-establish a positive adaptation to his/her environment; and the framework for nursing practice is the utilization of a nursing process that involves an interpersonal and interactive process between the nurse and client, (individual, family, group, community).

Characteristics of the Graduate:

Be kind and compassionate, must be assertive, skillful and knowledgeable, independent, respectful, committed worker, lifelong learner, must possess interpersonal skills, must be accountable and responsible, cultural sensitive, must be critical thinkers/enquiry mind, problem solvers.

Admission Criteria for Entry into the Professional Nursing Program in Liberia:

Candidates for the Registered Nursing Program must:

- Be a high school graduate with a West African Examination Council (WAEC) certificate
- Pass Biology and Chemistry on the West African Examination Council (WAEC) exam
- Pass the entrance examination of the institution
- Pass the interview at the institution

Be able to present:

- Health certificate from a licensed doctor
- Letter of application
- Three years of a high school transcript
- WAEC examination certificate
- Two letters of recommendation
- Two passport size photos
- School fees according to the institution's requirement

Nature of the Program:

A generic program for professional nurses (a minimum of three years). Graduate must pass the Liberian Board for Nursing and Midwifery Exam to obtain a license.

Curriculum Model:

A competency-based curriculum, delivered through a straight full time institutionalized three-year period.

Program Goal:

To educate professional nurses who will function independently and collaboratively within their scope of practice and deliver evidence-based nursing care to individuals, families, and community.

Program Objectives:

Upon the completion of the professional nursing program, the graduate will be able to:

1. Demonstrate skills in integrating nursing theory, social sciences, and evidence-based practice in planning, providing, and evaluating care for clients throughout their professional practice
2. Provide competent and holistic care to clients in and outside of the hospital setting
3. Sensitize and mobilize the community to take responsibility at the primary, secondary and tertiary levels
4. Effectively use available technology to recall, access, manage, and research
5. Work in a culturally diversified setting using ethical and moral standards
6. Manage health facilities with high proficiency.
7. Teach in clinical areas, communities and nursing institutions
8. Exhibit leadership skills, political awareness and collaborative strategies in interacting with the individuals, families, groups and community.
9. Seek opportunities to continue and advance education in nursing
10. Demonstrate responsibility and accountability for practice
11. Apply critical thinking in the provision of nursing care

Job Description

Registered Nurse – General

Scope of Work:

A registered nurse (RN) is an individual who has successfully completed a standardized, general, basic nursing education program from an accredited nursing institution with sound foundation in both theory and clinical, and sits and passes the State Board Exams. An RN provides holistic health care to individuals, families, groups and communities.

Education/Professional Qualifications:

A graduate from an accredited school of professional nursing, who has passed the National State Board Exam of the country with a current license to practice in Liberia,

Title:

Registered Nurse (RN)

Line of Authority:

- Responsible for designated supervision at the hospital and community health department of the health center
- Supervise some members of the health team at the hospital and county health center/post level

Duties:

- Function as a partner in the health team by assessing, diagnosing, planning, implementing and evaluating care of the patient/client
- Act as a change agent in establishing appropriate and effective strategies in implementing nursing interventions in a variety of settings
- Plan, monitor and evaluate preventive, promotive, curative, palliative and rehabilitative, health care activities. By doing this the nurse shall:

1. PROMOTE HEALTH:

- Implement PHC activities in his or her area of assignment
- Share health messages with the individual family and community
- Share relevant research findings with individuals, family and community
- Participate fully as a member of the health care team

- Provide preventive services to individuals, families, groups, and communities, especially in any or all of the following areas malaria, family planning/ reproductive health, ANC, PNC, newborn, prematurity, adolescent reproductive health, mental health, EPI, IMNCI, KMC, nutrition, STI, HIV, and TB, non-communicable disease, emergency care, maternity care, medical and surgical care

2. PREVENT ILLNESS, ACCIDENTS AND COMPLICATIONS:

- Assess all health needs of the individual, family and the community throughout their life cycle
- Follow CDC Standard Precautions to maintain infection prevention and control
- Notify communicable diseases
- Ensure safety at work place
- Provide secondary prevention measures and treatment to patients, families, groups and communities with malaria, med/surgical concerns, malnutrition, STI, HIV or AIDS, MNH, Obstetrical emergencies, including, PPH and pre-eclampsia, infections, wounds, adverse reactions to immunizations, asthma, burns, TB and other opportunistic and emerging diseases in accordance with protocols and standards at each level of health care(Community, clinic, health center and hospital)

3. HAVE MANAGEMENT AND LEADERSHIP ROLES:

- Take charge of hospital, unit, clinic, health center and community programs
- Apply the principles of management and leadership skills in her or his day-to-day activities
- Monitor for any unethical standards of nursing care and report them through the established protocol and chain of command
- Participate in decision-making at policy-level
- Ensure accountability in care of self and others
- Collaborate with multidisciplinary and inter-sectorial team members in providing care
- Advocate for policies that are in the best interest of patients and staff
- Follow performance standards to promote quality in nursing practice in order to provide safe, effective and ethical care

4. PROVIDE MATERNAL AND NEONATAL HEALTH CARE SERVICES:

- Assess the health needs of the pregnant client and family
- Prescribe drugs used in maternal and newborn care,(prenatal, labor and puerperium)

- Diagnose and manage maternal and newborn conditions
- Plan and implement maternal and newborn care
- Monitor and evaluate maternal and newborn health services
- Prevent, detect early and manage maternal and newborn complications, including timely referral
- Manage normal pregnancy, labor and puerperium

5. TEACHING AND TRAINING:

- Participate in teaching and training of nurses and other health personnel in the clinical area or community
- Participate in clinical instruction of students in the hospital and rural health facilities
- Participate in training and supervision of community health workers from the clinic level
- Participate in the health education of community members as individuals and in groups
- Assess continuous professional needs
- Develop and implement education/training programs in the clinical areas
- Identify and develop educational resources for clinical instruction: i.e., equipment and material

6. PALLIATIVE CARE:

- Participate in the management and improvement of quality life of patients suffering from terminal illness/condition
- Counsel client/patients and family

7. REHABILITATIVE CARE:

- Identify needs for rehabilitation of staff in relation to substance abuse and other addictive substances
- Identify needs for rehabilitation of patients in relation to substance abuse, mental health, gender-based violence, or disabilities
- Participate in the rehabilitation programs for patients/clients with substance abuse issues, mental health issues, medical and emotional repercussions of GBV, and adjustment to congenital or acquired disabilities

8. RESEARCH AND INFORMED CONSENT:

- Participate in research
- Ensure ethical guidelines are followed
- Implement recommendations from research findings for improvement of care (evidenced-based care)
- Share research findings with relevant authorities
- Implement research findings for improvement
- Obtain informed consent from patients for invasive procedures (e.g., surgical and IUD insertion)

Core Competencies:

Registered Nurses

Summary:

The following essential competencies for Registered Nurses (RN) were adapted/developed using the following documents: ICN Regulation series; Nursing care continuum Framework and competencies; Australian Nursing and Midwifery council: National Competency Standards for the Registered Nurses and Core competencies for the Nurse; and Practical Nurse and Nursing Assistive Personal, developed by the Oregon Nurse Leadership Council Education Committee.

The Liberian Board of Nursing and Midwifery (LBNM), The Liberian Nurses Association(LNA) and the Nursing and Midwifery Division/MOHSW acknowledges that this is the beginning and that the content, methods and process of further identification and developing/adapting of core competencies for RNs will be reviewed within a maximum of two years.

The core competencies are based on the following critical factors: nursing care, like all health care, should be dynamic and responsive to societal needs and changes; nursing continually evolves with advances in nursing knowledge and technology; and RNs must fulfill multiple roles. These core competencies describe the values, vision, strategies and actions used by those who provide nursing education and services to the population of Liberia. These competencies are integrated into four primary domains to reflect the ICN 17 core competencies areas. They are the following:

- Professional, legal and ethical practice competencies, which relates to accountability and functioning morally in accordance with legislation affecting nursing and health care
- Provision and coordination of care competencies involves the provision of nursing care, including planning assessment, evaluation and health promotion, as well as the establishment, maintenance and termination of therapeutic communication and communication

- Critical thinking and analysis competencies, including leadership and management skills of delegation and supervision, ensuring a safe environment and inter professional health care
- Professional, personal and quality development competencies for the enhancement of nursing through continuing education with values on evidence and research for quality improvement

Core Competencies:

1. PROFESSIONAL, LEGAL AND ETHICAL PRACTICE:

- Accepts accountability for own professional judgment, actions, outcomes of care and continued competence in accordance with scope of practice, increased responsibility, legislative acts and regulations
- Recognizes the limits of scope of practice and own competence and performs nursing interventions in accordance with recognized standards of practice
- Seeks guidance from appropriate persons when encountering situations beyond own knowledge, competence or scope of practice
- Recognizes and respects the different levels of accountability for the range of available personnel and participates in activities related to improving access to the range of services required for effective health services
- Practices in accordance with the nursing profession's codes of ethics and employer's code of conduct with acceptance and respect of individuals/groups regardless of race, culture, religion, age, gender, sexual preference, physical or mental state, and ensures that personal values and attitudes are not imposed on others
- Engages in effective ethical decision-making with respect to own professional responsibilities or where ethical issues affect the broader health care team
- Maintains confidentiality and security of written, verbal and electronic information acquired in a professional capacity, and respects the client's right to privacy, dignity, right to information, choice and self-determination in nursing and health care while continuously identifying and challenging behavior and health care practices that could compromise the client's safety, privacy or dignity
- Practices in accordance with professional, relevant civil legislation and regulations, jurisdictional and local policies, and procedural guidelines
- Practices within a professional and ethical nursing framework in accordance with legislation affecting nursing practice and health care by complying with relevant legislation and common law governing nursing practice

- Formulates documentation according to legal and professional guidelines according to legal requirements that is contemporaneous, comprehensive, logical, legible, clear, concise and accurate, and that identifies the midwife and title designation

2. PROVISION AND COORDINATION OF CARE:

- Conducts a comprehensive and systematic nursing assessment using a range of nursing and other data gathering techniques and knowledge from nursing, health and other disciplines combined with best available evidence to analyze and interpret assessment accurately
- Applies contemporary knowledge from different sources and the best available evidence to plan nursing care in consultation with individuals/groups, significant others and the health care team in determining priorities, expected achievements within a time frame, interventions to achieve expected outcomes and continuity of care
- Delivers comprehensive, safe and effective evidence-based nursing care consistent with professional and organizational standards, policies, protocols and procedures in a recognizable and culturally sensitive approach with effectiveness and efficiency in a manner consistent with nursing principles; confidently and safely, according to the documented care of treatment and management
- Applies advocacy skills to assist clients who are unable to represent or speak for themselves
- Acts as an information and education resource and for clients seeking to improve life styles, adopt illness/injury prevention activities, and cope with changes in health, disability and death
- Provides guidance/instruction in the development and/or maintenance of independent living skills and promotes patient control over their lives
- Recognizes opportunities and provides guidance/education to individuals, families and communities to encourage adoption of illness prevention activities and maintenance health lifestyles
- Selects teaching/learning strategies appropriate to the needs and characteristics of the individual or group and evaluates learning outcomes, modifying teaching/learning approaches and content accordingly
- Evaluates progress towards expected individual outcomes and responds effectively to rapid changing or unexpected situations with self-control, applying appropriate emergency evidence-based interventions as needed, revising plans and determining further outcomes in accordance with evaluation and intervene appropriately
- Documents interventions and client responses accurately and in a timely manner and uses data to plan continuing care

- Ensures the safe and proper storage, administration and recording of therapeutic substances, and administers and records medication, assesses side-effects and titrates dosages in accordance with authorized prescriptions
- Complies with infection prevention procedures and challenges breaches in other practitioners' practice
- Establishes, maintains and appropriately concludes therapeutic relationships that are goal directed and recognizes professional boundaries while demonstrating empathy, trust and respect for the dignity and potential of the individual/group
- Uses a range of effective communication techniques and language appropriate to the context, both written and verbal; communicates effectively with individuals/groups to facilitate provision of care, using an interpreter where appropriate

3. CRITICAL THINKING AND ANALYSIS:

- Advocates for and acts within span of control to create a positive working environment, especially on delegating aspects of care to others, activities according to ability, level of preparation, proficiency and legal scope of practice, while making sure to supervise staff and monitor tasks delegated and keeping in mind personal responsibility and accountability
- Adapts leadership style and approaches to different situations; prioritizes workload and manages time effectively and uses health care resources effectively and efficiently to promote quality health and nursing care
- Confronts conflicts in a non-judgmental manner, making effective use of communication skills and existing mechanisms to achieve resolution
- Contributes to team leadership by reinforcing goals to promote respect and confidence amongst the team and be able to articulate own leadership contributions, support and expectations of team members
- Contributes to the review and modification of current organizational and practice policies and provides feedback; offers suggestions for changes and deals effectively with the impact of change in own practice or in the organization
- Uses appropriate assessment tools to identify actual and potential risks to safety, and reports concerns to the relevant authority
- Takes timely action through the use of quality improvement risk management strategies to create and maintain safe care environment; meets national legislations and workplace health and safety requirements, policies and procedures
- Accepts delegated activities in line with personal level of proficiency and legal scope of practice and contributes to policy and protocol development that relates to delegation of clinical responsibilities

- Utilizes knowledge of effective inter-and intra-professional working practices for working collaboratively with other professionals in health care while understanding and valuing, roles, knowledge and skills of members of the health team in relation to own responsibilities in enhancing nursing and other health services being accessed by clients
- Presents and supports the views of clients, families and/or care-givers during decision-making by the inter-professional team and refers clients to ensure patients/clients have access to best available interventions

4. PROFESSIONAL, PERSONAL AND QUALITY DEVELOPMENT:

- Promotes and maintains a positive image of nursing while practicing within an evidence-based framework and identifying the relevance of research to improving individual/group health outcomes
- Uses best available relevant literature, research findings evidence, nursing expertise and respect for the values and beliefs of individuals/groups in the provision of nursing care to improve current practice
- Participates in ongoing professional development of self and others using best available evidence, standards and guidelines to evaluate nursing performance; and maintains records of involvement in professional development, which includes both formal and informal activities
- Contributes to education and professional development of students and colleagues in the work place, as well as monitors and uses a range of supportive strategies including precepting and being an effective role model for students and a resource for students within the care team
- Values research in contributing to developments in nursing, participates in quality improvement and quality assurance procedures, and uses findings as a means to improving standards of care while promoting, disseminating, using, monitoring and reviewing professional standards and best practice guidelines
- Follows evidence-based and best practices guidelines in the delivery of nursing practice, and engages in advocacy activities through the professional organization to influence health and social care service policies and access to services
- Takes opportunities to learn with others contributing to health care by undertaking regular review of own practice by engaging in reflection, critical examination and evaluation, and seeking peer review, assumes responsibility for lifelong learning, own professional development and maintenance of competence

Program Content

Prerequisite courses:

- Basic program – depends on courses offered
- Universities – general educational courses (college required). Subsequent courses depend on courses offered and policies of nursing institutions

Teaching-Learning Strategies:

- Interactive lecture/discussion
- Role play
- Concept mapping
- Demonstrations and return demonstrations
- Interactive group presentations
- Reading assignments
- Formal lecture
- Field trip
- Use of visual/audio materials
- Problem-based learning
- Peer learning
- Research
- Brainstorming
- Panel discussion
- Case studies
- Simulations
- Group discussion
- Games

Program Expectations:

- Regularly attend classroom and/or laboratory sessions
- Complete all clinical hours

- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and/or laboratory and clinical practicum
- Complete all assignments and examinations on due dates

Examination/Assessment Strategy:

- Continuous assessment (assignments, tests, quizzes, clinical practice, checklist, observation, log books)
- Clinical skills
- Clinical scenario
- Case presentations
- Peer reviews
- Summative (final examination – written and OSCE)

Program Evaluation:

- Annual assessment by LBNM
- Accreditation assessment done after three years by the LBNM
- Mid and semester evaluation by students
- Semester evaluation by peers and administration

Program Structure:

Six semesters which include one semester of internship

Program Timescale:

Three years which include 16 weeks of internship

Program Content

Sequencing

Semester I					Semester II				
Courses	Credit	Theory	Lab	Clinical	Courses	Credit	Theory	Lab	Clinical
Basic English	2	28	0	0	Primary Health Care I	2	28	0	0
Basic Math	2	28	0	0	Nutrition	2	28	0	
Fundamentals of Nursing I	4	56	168	0	Ethical & Prof. Adjustment	2	28	0	0
Anatomy & Physiology I	3	42	42	0	Fundamentals of Nursing II	5	70	0	210
Integrated Basic Science	3	42	0	0	Anatomy & Physiology II	3	42	42	0
ICT	2	28	84	0	Tropical & Communicable Disease	3	42	0	126
(Psychosocial) Psych. & Soc.	2	28	0	0		0	0	0	0
Total	18	252	294	0	Total	17	238	42	336

Semester III					Semester IV				
Courses	Credit	Theory	Lab	Clinical	Courses	Credit	Theory	Lab	Clinical
Health Assessment	3	42	42	0	Teaching in Nursing	3	42	0	126
PHC II	3	42	0	0	Psychiatric Mental Health Nursing I	3	42	0	42
Pharmacology & Drug Calculations	4	56	0	0	Medical Surgical Nursing II	5	70	0	210
Medical-Surgical Nursing I	4	56	0	168	Obstetric Maternity Nursing II	4	56	0	168
Obstetric Maternity Nursing I	4	56	0	168	Pediatric Nursing I	3	42	0	126
Total	18	252	42	336	Total	18	252	0	672

Semester V					Semester VI				
Courses	Credit	Theory	Lab	Clinical	Courses	Credit	Theory	Lab	Clinical
Nursing Administration (Leadership & Management)	3	42	0	126	Professional development Workshop (BLSS)	2	28	0	84
					Affiliation	4	0	0	400
Psychiatric Mental Health Nursing II	3	42	0	126					
Pediatric Nursing II	4	56	0	168					
Introduction to Research	2	28	0						
Simplified Diagnosis & Treatment	4	56	0	168					
Total	16	224	0	588		6	28	0	400

Semester VI

Lifesaving skills workshop (BLSS): 2 credits all (2 weeks) practicum before affiliation
 Affiliation follows the BLSS for ten weeks

LBNM Recommended Credit and Instructional Hours:

Credits hours:
 93

LBNM Recommended Instructional hours:

Theoretical hours:
 1246

Lab hours:
 378

Clinical hours:
 2,432

Total instructional hours:
 4,049

Semester I | Course Outline

English Communication Skills

Basic Math

Anatomy and Physiology I

Science: A or B & C

A. Integrated Basic Science or

B. Microbiology and

C. Chemistry

Psychosocial (Psychology/Sociology)

ITC

Fundamentals of Nursing I

Course Title: English Communication Skills

Course Credits:

2

Placement:

First year, Semester I

Duration:

28 hours classroom

Course Description:

This course is for students to improve their verbal and written English skills for interviewing and interacting with patients/clients, their family members and other relevant persons. At the completion of the course, students will apply appropriate professional and scientific terminology for their communication, including medical documentation. Students will also gain and apply effective non-verbal communication techniques.

Broad Objective:

By the end of this course, the students will be able to establish good interpersonal relationships with a patient/client, family members and other relevant persons using verbal and non-verbal techniques to gather information.

Specific Objectives:

By the end of the course, the student will:

- Use improved basic formal English grammar, sentence structure and paragraph writing skills
- Apply basic research skills to produce correctly referenced reports
- Utilized improve reading and medical documentation skills to obtain and to record the patient's medical history
- Apply professional verbal and non-verbal communication techniques to establish good interpersonal relationships with a patient/client or his/her family members to gather information

Course Content:

Unit 1 | Language and Communication Skills

1. PRETEST

2. EFFECTS OF LANGUAGE ON COMMUNICATION:

- Effective communication skills
- Barriers to effective communication
- Two-way communication
- Keys to understanding and being understood

3. VERBAL TECHNIQUES:

- Oral communication
- Written communication

4. NON-VERBAL TECHNIQUES:

- Setting a tone conducive to optimal communication
- Listening
- Observation of patient's non-verbal communication
- Attention to one's own non-verbal communication
- Inter-cultural/inter-tribal sensitivity to unique non-verbal communication
- Construction
- Behavior
- Body language:
 - Posture/gait
 - Facial expressions
 - Gestures
- Touch (tactile defensiveness)
- Physical appearance

5. TELEPHONE ETHICS/COMMUNICATION:

- Voice tone
- Respecting privacy

- Rephrasing
- Paragraph construction

6. TECHNIQUES FOR CONDUCTING AN INTERVIEW TO OBTAIN MEDICAL HISTORY:

- Open-ended
- Closed-ended
- Validating questions
- Reflective questions
- Use of silence

Unit 2 | Focused Reading Skills and Comprehension

- Words and their meaning; vocabulary development
- Roots, prefixes, suffixes
- Antonyms, synonyms
- Context clues
- Inferences
- Facts vs. opinions
- Patterns of academic paragraph organization:
 - Topic
 - Main idea
 - Supporting details
- Paraphrasing
- Speed:
 - Scanning
 - Skimming
- Analysis of simple and complex sentences
- Paragraph contraction

Semester I

Unit 3 | Overview of Grammar and Mechanics

1. FOUNDATIONS OF GRAMMAR:

- Parts of speech
- Sentence construction and types
- Agreements: subject-verb, pronouns, numbers
- Verb tenses
- Major errors:
 - Fragments, run-on sentences

2. BASIC MECHANICS:

- Capitalization
- Punctuation
- Spelling
- Antonyms
- Synonyms

Unit 4 | Writing Skills

- Documentation
- Reports
- Correct citations of research material
- Presentation

Unit 5 | Overview of Library Research

- Library system
- Types of resource material
- Reference material
- Computer search
- Bibliography

Unit 6 | Simple Clinical Filing System

- Action file
- Follow-up file
- Correspondence file
- Clinical skills in filing

Competencies

Knowledge	Attitudes/Behaviors	Skills
Understands principles of effective communication through various means.	Accepts responsibility for communicating effectively	Uses clear, concise and effective written electronic and verbal communication
Understands different means of communication	Values different means of communication	Chooses the appropriate means of communication for a specific situation.
Understands the physiological, psychosocial, developmental, spiritual, and cultural influences on effective communication	Values mutually respectful communication Values individual cultural and personal diversity	Assesses barriers to effective communication (language, developmental level, medical condition/disabilities, anxiety, learning styles, etc.) Makes appropriate adaptations in own communication based on patient and family assessment
Understands the nurse's role and responsibility in applying the principles of verbal and nonverbal communication	Values the therapeutic use of self in patient care Appreciates the influences of physiological, psychosocial, developmental, spiritual, and cultural influences on one's own ability to communicate	Establishes rapport with clients Actively listens to comments, concerns, and questions Demonstrates effective interviewing technique
Interprets differences in communication styles among patients and families, nurses, and other members of the health team	Values the role of each member of the health care team	Communicates effectively with colleagues
Discusses effective strategies for communicating and resolving conflict	Recognizes that each individual involved in a conflict has accountability for it and should work to resolve it	Contributes to resolution of conflict
Understands the principles of group process and negotiation	Appreciates the contributions of others in helping patient and families achieve health goals	Uses standardized communication approach to transfer care responsibilities to other professionals whenever patients experience transitions in care and across settings

Semester I

Knowledge	Attitudes/Behaviors	Skills
Understands the influences of different learning styles on the education of patients and families	Values different means of communication used by patients and families	Assesses factors that influence the patient's and family's ability to learn, including readiness to learn, preferences for learning style, and levels of health literacy
Identifies differences in auditory, visual, and tactile learning styles	Accepts the role and responsibility for providing health education to patients and families	Incorporates facts, values, and skills into teaching plan

Teaching/Learning Strategies:

- Classroom lectures
- Group exercises
- Educational games
- Demonstration
- Coaching
- Interpersonal presentation
- Homework and laboratory assignments
- Dictionary usage
- Online materials

Course Expectations:

The student is expected to:

- Regularly attend class and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and take examinations on due dates

Required Textbooks:

The Mayfield Handbook of Technical and Scientific Writing.

Building Vocabulary Skills, Carole Mohr.

Martin Hewings, 2008. *Advanced Grammar in Use*; Cambridge University

Rodney Huddleston and Geoffrey K. Pullum. 2002. *The Cambridge Grammar of the English Language*.

Assessment Criteria – Standard Grading System (modified for English):

Quizzes	15%
Assignments	15% (written and oral)
Attendance	5%
Mid-term exam	25%
Final exam	40%

Semester I

Course Title: Basic Math

Course Credits:

2

Placement:

First year, Semester I

Duration:

28 hours classroom

Introduction/Course Description:

This course teaches basic mathematical skills which are tailored to the needs of the health professions. This module may be a review for most, but will assist in applying previous competencies to conversions and problem solving. This module will prepare the student for integrating these concepts into Medication Administration covered in fundamental courses.

Broad Course Objectives:

Upon completion of this course, the student will be able to correctly use basic mathematical skills.

Specific Course Objectives:

By the end of this course, the student will be able to:

- Solve different problems of fraction, decimal and percentage by using the four fundamental operations (addition, subtraction, multiplication, division)
- Apply the ratio and proportion methods to solve problems
- Solve problems based on conversions from one system to another
- Solve problems for safe medication administration

Course Content:

Unit 1 | Arithmetic Operations

1. INTRODUCTION TO NUMBERING SYSTEMS

2. BASIC ROMAN NUMERALS:

- Rules for addition and subtraction of Roman numerals

3. USE OF ARABIC NUMERALS

4. SIMPLE CALCULATIONS:

- Fractions
- Percentages:
 - Ratios
 - Proportions

5. DECIMALS:

- Changing fractions to decimals and vice versa
- Adding, subtracting, multiplying and dividing decimals

6. METRIC SYSTEM – WEIGHT AND VOLUME/METRIC EQUIVALENTS:

- Apothecary system
- Household system
- Metric system: units of length

7. LINEAR UNITS OF MEASUREMENT CONVERSION OF TEMPERATURE FROM CELSIUS (CENTIGRADE) TO FAHRENHEIT AND VICE VERSA

8. PLOTTING AND CONSTRUCTING GRAPHS WITH POSITIVE AND NEGATIVE NUMBERS:

- Conversion graphs
- Covert graphs
- Reading and interpretation of graphs

Unit 2 | Measurements and Calculations

1. COMPUTATION OF MEDIAN, MEAN AND MODE FOR AGES, SEX, HEIGHT, WEIGHT AND DISTANCE

2. RADIUS, CIRCUMFERENCE, AREA AND VOLUME: PROBLEMS, MEASUREMENTS AND CALCULATIONS:

- Calculating perimeter
- Measuring radius:
 - Calculating area of squares, circles, rectangles and triangles
 - Calculating volume of cubes, cylinders, cones, globes and pyramids

3. CALCULATIONS OF SIMPLE INTEREST AND COMPOUND INTEREST:

- Definition of terms:
 - Principal
 - Rate
 - Profit
 - Percentage
 - Time

Unit 3 | Calculating Dosages

1. COMPUTATION OF DOSAGE:

- When the dose prescribed is in milligrams and dose available is in grams or vice versa
- When the dose ordered by the physician is larger or smaller than the dose on hand
- When the physician orders a dose in one system and the dose on hand is in another
- When a specific dose is to be given and the label on the bottle reads that a certain amount of the drug is dissolved in a certain amount of solution

2. COMPUTING ADULT DOSAGE BY WEIGHT

3. COMPUTING A CHILD'S DOSE FROM A KNOWN ADULT DOSE OF DRUG:

- Clark's formula
- Formula based on body surface area

- Young's formula

4. COMPUTATION PROBLEMS RELATED TO INTRAVENOUS SOLUTIONS:

- Calculating the rate of flow
- Increasing the rate of flow by a specified percent

Competencies

Knowledge	Attitudes/Behavior	Skills
Physical, biological, quantitative and computer sciences	Values liberal learning as a solid foundation for the development of the clinical judgment skills required for the practice of professional nursing and critical thinking	Develops and uses problem-solving and critical thinking skills Integrates concepts from behavioral, biological, and natural sciences in order to understand self and others Interprets and uses quantitative data Uses the scientific process and scientific data as a basis for developing, implementing, and evaluating nursing interventions Applies knowledge regarding social, political, economic and historical issues to the analysis of societal and professional problems

Teaching/Learning Strategies:

- Classroom presentations
- Group exercises
- Educational games
- Demonstration
- Coaching
- Homework and laboratory assignments

Semester I

Course Expectations:

The student is expected to:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

References:

William Clarke, 2008. Applied Basic Mathematics; 08ed, Addison Wesley Longman

Elias Zakon, 2001-2012. Basic concept of Mathematics, University of Windsor, Trilla Group.

Dosage Calculations Made Incredibly Easy, Lippincott.

Assessment Criteria – Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Integrated Basic Sciences

Credits:

3

Placement:

First year, semester 1

Duration:

16 weeks

42 hours classroom

42 hours laboratory

Pre-requisites:

None

Introduction/Course Description:

This course focuses on the scientific principles and concepts from Physics, Chemistry, Biology and Microbiology and their applications to nursing practice. It also includes a lab component.

Broad Course Objectives:

- Describe the basic and applied concepts of Physics, Chemistry, Biology and Microbiology
- Relate the relevant principles of Physics, Chemistry, Biology and Microbiology while providing nursing care to patients
- Discuss the relevant principles of Physics, Chemistry, Biology, and Microbiology as applied in the hospital and community environment
- Demonstrate the application of the concepts of applied science through laboratory experiments
- Interpret lab values
- Classify microorganisms as they relate to infection control

Course Content:

Semester I

Unit I

1. INTRODUCTION TO APPLIED SCIENCE:

- Application of physics, chemistry, biology and microbiology
- Importance of science to practice

2. REVIEW OF BASIC SCIENCE:

- Matter and elements, mixtures and compounds
- Language of chemistry (chemical reactions and formulas; periodic table)
- Laws of motion
- Work, power and energy (simple machines)

3. BIOLOGY:

- Basic design of a cell:
 - Nucleus
 - Cytoplasm
 - Organelles – mitochondria, etc.

4. DEFINITION AND DESCRIPTION OF THE FOLLOWING:

- Mitosis
- Meiosis
- Cell membrane
- Cellular respiration
- Metabolism

5. MICROBIOLOGY

6. DESCRIPTION AND USES OF MICROSCOPIC:

- Parts of a microscope
- Uses of a microscope (lab)

7. PROPER HANDLING OF MICROSCOPE FOR PROCEDURES (LAB):

- Care and storage of a microscope

8. CHARACTERISTICS OF MICROORGANISMS:

- Structure
- Growth requirements
- Pathogenicity

9. CLASSIFY MICROORGANISMS (LAB):

- Protozoa
- Algae
- Fungi
- Bacteria
- Viruses

10. MICROBIOLOGY IN EVERYDAY LIFE:

- Malaria parasites
- AFB (TB-leprosy)
- Gram negative-gram positive (lab)

11. SPECIMEN COLLECTION OF:

- Blood
- Sputum
- Stools
- Urine
- Skin scrapings
- Slide preparation (lab)

12. INFECTION AND DISEASE TRANSMISSION:

- Pathogens and infectious disease
- Spread of infectious diseases
- Primary and secondary infections
- Disease Transmission:
 - Direct

Semester I

- Indirect

13. BODY RESPONSES TO MICROORGANISMS:

- Immunity:
 - Active
 - Passive
- Infections

14. CONTROL OF MICROORGANISMS:

- Sterilization
- Physical and chemical methods
- Vaccines

15. CHEMISTRY

16. MOLECULAR PHENOMENA RELATED TO BIOLOGICAL PROCESSES:

- Composition of body fluids:
 - Water and electrolytes
 - Fluid compartments
 - Intra-cellular
- Extra-cellular:
 - Interstitial fluid
 - Intravascular fluid

17. MOVEMENT OF FLUIDS AND PARTICLES:

- Diffusion
- Osmosis
- Osmotic pressure
- Result of fluid introduction:
 - Isotonic fluid
 - Hypotonic fluid
 - Hypertonic fluid

- Fluid-electrolyte balance
- Plasma proteins and their functions

18. FACTORS FOR MAINTENANCE OF ACID-BASE BALANCE:

- PH (lab)
- Buffer systems
- Role of respiratory system in maintaining pH homeostasis:
 - Potential problems – Respiratory acidosis and alkalosis
- Role of kidneys in maintaining pH homeostasis:
 - Potential problems – Metabolic acidosis and alkalosis
- Cause of fluid imbalance:
 - Burns
 - Vomiting
 - Diarrhea
 - Edema

Unit II | Physics

1. FRICTION AND HEAT:

- Specific and latent
- Temperature versus heat
- Converting Celsius to Fahrenheit and back
- Conduction
- Convection
- Radiation

2. ELECTRICITY:

- Terms and descriptions
- Conductors and insulators
- Static electricity

Semester I

- Safe electrical environments
- Safety factors for electrical equipment

3. ELASTICITY:

- Tension
- Compression
- Bending

4. SOUND:

- Half length
- Pitch
- Loudness
- Quality
- Beats
- Resonance
- Ultrasound

5. LIGHT:

- Luminosity and illumination
- Reflection and refraction
- Vision and color

Integrated Basic Sciences Clinical Description

This clinical component of this course provides the learner an opportunity to carry out direct observation and hands-on activities in biology, physics, microbiology and chemistry in a basic science laboratory classroom. The learner is also expected to develop relevant knowledge and skills in knowing how a microscope is used in finding evidence-based information in the diagnosis and treatment of patients. The practicum allows for collaboration and consultations with the instructor and members of the class.

Clinical Objectives:

At the end of this course, the learner will be able to:

- Demonstrate basic procedures of the integrated basic sciences in client care
- Interpret lab values
- Classify microorganisms as they relate to infection control

Clinical Placement:

- Biology skills laboratory

Clinical Skills:

- Identifying microorganisms and parasites
- Documentation of findings

Resources/Materials:

- Tourniquets
- Lab Coats
- Gloves
- Microscopes and slides
- Petri dish
- Reagents

Semester I

Competencies

Knowledge	Attitudes/Behaviors	Skills
Physical, biological, quantitative and computer sciences	Values liberal learning as a solid foundation for the development of the clinical judgment skills required for the clinical practice and critical thinking	Integrates concepts from behavioral, biological, and natural sciences in order to understand self and others

Teaching/Learning Strategies:

- Classroom presentations
- Lectures/discussion
- Group exercises
- Educational games
- Demonstration
- Coaching
- Homework and laboratory assignments

Practical/Clinical Assessment:

- Clinical logs
- Clinical practicum
- OSCE
- Case presentations

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Required Resources:

- Microscope
- Prepared slides

References:

Integrated Science, 3rd Ed., McGraw-Hill Higher Education, 2007.
Sylvia Mader, 2011. *Human Biology: 12th edition*, McGraw-Hill Companies, Inc.
John A. Olmsted, 2008. *Chemistry 4th edition*.
David Halliday, 2004. *Fundamentals of Physics, 7th edition*.

Assessment Criteria – Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Anatomy and Physiology I

Credits:

3

Placement:

First year, Semester I

Duration:

42 classroom hours

42 lab hours

Course Description:

This course equips the learner with normal anatomy and physiology of all systems of the human body. The knowledge gained in this course will be used in Anatomy and Physiology II and all subsequent nursing courses.

Broad Objectives:

By the end of this course, the student will be able to:

- Know the names, functions and locations of basic organs and systems of the body
- Identify and describe the locations and functions of organs within the body
- Be able to describe appropriate anatomical and clinical findings on the medical records

Specific Objectives:

By the end of this course, the student will be able to:

- Define related anatomical terms, including: anatomy, physiology, gross anatomy and microscopic anatomy
- Name the anatomical parts of the human body
- Explain the physiology connected with these organs (how each organ functions)
- Explain the basic concept of life in relation to the cell, tissue, organ, system and organism
- Draw a human cell and label all the parts with their physiological descriptions
- Chronologically describe cell development from the time of fertilization to how cells divide and multiply to form tissues, organs and finally systems
- Identify and classify all of the body systems in relation to the organization of the human body
- Explain the purpose of each system

- Describe the functions of each system
- List the main components of each system
- Explain the essential functions of each organ of each system
- State the important composition of each organ of each system

Course Content:

Semester I

1. INTRODUCTION/OVERVIEW:

- Anatomical terms
- Primary divisions of the body

2. CELLS – THE BASIC UNIT OF ALL LIVING ORGANISMS:

- Life, cells and body systems
- Cell functions
- Cell components
- Cell division:
 - Mitosis
 - Meiosis

3. CIRCULATORY SYSTEM – ORGANS AND FUNCTIONS:

- Heart:
 - Walls, chambers and valves
 - Blood vessels
 - Blood components
- Normal circulatory flow
- Systemic and pulmonary circuits and function of each:
 - Systemic (body) circulation: LA, LV, aorta, arteries, arterioles, capillaries, veins, vena cava, right atrium
 - Pulmonary circulation: RA, RV, pulmonary artery, lung capillaries, pulmonary veins, LA
- Body fluids and electrolytes:
 - The three compartments
- Fluid composition of each:
 - Fluid buffering systems, fluid pH
 - Homeostasis
- Blood pressure

4. SKELETAL SYSTEM:

- Names of bones and joints
- Types of bones and composition of each
- Functions and purposes
- Types of movements of joints

5. MUSCULAR SYSTEM:

- Types and names of muscles
- Components of muscle cells
- Muscular functions
- Purpose, movement

6. RESPIRATORY SYSTEM:

- Organs, Structures and Functions:
 - Nose
 - Pharynx
 - Larynx
 - Trachea
 - Lungs with bronchial tubes, bronchioles and alveoli
- Importance
- Functions of each component
- Air composition
- Mechanics of respiration
- Gaseous exchange of oxygen and carbon dioxide:
 - Alveolar level in lungs
 - Cellular level

7. LYMPHATIC SYSTEM AND BODY FLUIDS:

- Lymph nodes:
 - Definition and locations

Semester I

- Structure
- Functions of nodes
- Lymphatic fluid:
 - Composition, etc.
- Fluids and electrolytes, and fluid compartments of the body:
 - The three compartments
 - Fluid composition of each (different electrolytes and their concentrations)
 - Fluid buffering systems, fluid pH
 - Homeostasis
 - When homeostasis fails:
 - Respiratory acidosis and alkalosis
 - Metabolic acidosis and alkalosis
 - Osmotic pressure
 - Distribution of fluids
 - Importance and functions

8. URINARY SYSTEM – ORGANS AND FUNCTIONS OF EACH:

- Kidneys
- Ureters
- Bladder
- Urethra
- Composition of urine
- Excretion of wastes: urea is main waste
- Homeostasis (pH): metabolic acidosis and alkalosis
- Homeostatic water balance under control of ADH from posterior pituitary

9. NERVOUS SYSTEM – ORGANS AND FUNCTION:

- Neurons: 100 billion in brain. Each neuron has a body, axon and dendrites, and neurons communicate with each other. (If a person were to lose one brain cell each second it would take 3170 years to lose all 100 billion.)

- Neurotransmitters – excitatory and inhibitory-perhaps 50+ transmitters:
 - Made at the end of each axon
 - Released into synaptic space
 - Neurotransmitter attaches to receptor in end of dendrite and causes impulse, then taken back in (reuptake) to end of axon
 - Main examples (many others):
 - Acetylcholine, especially in cholinergic division of autonomic nervous system
 - Serotonin:
 - Regulates mood (depression), appetite, sleep, memory, learning, temp, behavior, muscle contraction and functions of cardiovascular and endocrine systems
 - Selective serotonin reuptake inhibitors (SSRI's) given for depression
 - Norepinephrine also regulates mood
- Brain (brain and spinal cord make up the central nervous system):
 - Brainstem:
 - Medulla oblongata – vital functions: breathing, blood pressure, heart rate, digestion. Pathway of all nerve impulses (both sensory and motor) between the brain and spinal cord.
 - Pons – relay center: connects the medulla oblongata to the diencephalon, cerebrum and cerebellum. Contains motor and sensory pathways. Helps regulate breathing.
 - **Cerebellum:** controls balance, movement, coordination and proprioception
 - **Diencephalon:** Thalamus and Hypothalamus:
 - Processes and relays sensory information to cortex
 - Motor control functions
 - Autonomic functions
 - **Cerebrum:** Cortex (grey matter – thinner surface layer) and white matter (deeper). Cell bodies are in the grey matter:
 - 2 hemispheres: each controls opposite side of body. Left usually dominant (especially if right-handed).
 - Hemispheres connected by the **Corpus Callosum:** permits right and left hemisphere to communicate with each other
 - **Four lobes** of cerebrum – location and functions of each:
 - Anterior lobe: in front

Semester I

- Planning, problem-solving, conscience, impulse-control, memory, decision-making, organizing
- Posterior part of anterior lobe contains the neurons which cause muscles to move (motor strip)
- Left frontal lobe also plays a part in speech and language
- **Parietal lobe:** behind anterior lobe, but in front of posterior:
 - Integrates sensory information
 - Part just posterior to anterior lobe is the sensory strip, which detects sensations (touch, pain, heat, coldness) and tells us which part of the body sensations are coming from
 - Tells us which way is up
- **Occipital or Posterior lobe (visual cortex)** (in very back of cerebrum): we see with the back of our brain
- **Temporal lobe** – lower lateral cerebrum-left usually dominant. Center for:
 - Hearing
 - Recognizing speech
 - Speaking
 - Has some part in memory
- **Ventricles:** choroid plexuses in ventricles 1 and 2 produce spinal fluid
- **Meninges:** lining around the brain and spinal cord-protect and cushion the brain and cord
- **Blood-brain barrier:** prevents many toxins and medicines in blood from reaching the brain
- Cranial nerves: I–XII
- Spinal cord:
 - Carries messages between brain and arms, legs and body:
 - Efferent fibers – front of cord – motor fibers: carry messages from brain downward to arms, legs and body
 - Afferent fibers – back of cord – sensory fibers: carry sensations up to brain
 - Cord protected by vertebra
 - Spinal fluid
- Peripheral nerves
- Autonomic nervous system – nerves and function

10. ENDOCRINE SYSTEM – ANATOMY OF GLANDS AND FUNCTIONS OF EACH HORMONE(S) PRODUCED BY EACH GLAND AND FUNCTION OF HORMONE(S):

- Pituitary – The Master Gland:
 - Anterior: ACTH, GH, FSH, LTH (prolactin), LH, TSH (and endorphins)
 - Posterior: ADH, Pitocin
- Pineal: Melatonin
- Thyroid: thyroxine, tri-iodothyronine
- Parathyroid (four glands): parathormone
- Pancreas – discuss its endocrine functions (point out also has exocrine functions):
 - Isles of Langerhans
 - Alpha, beta and delta cells: glucagon, insulin, and somatostatin respectively
- Adrenal:
 - Medullary hormones: epinephrine and norepinephrine
 - Cortical hormones: cortisol, aldosterone, androgens
- Gastric and intestinal hormones: incretin
- Gonads:
 - Ovaries: estrogen, progesterone
 - Testicles: testosterone

11. REPRODUCTIVE SYSTEM – ORGANS AND FUNCTION OF:

- Female:
 - Ovaries and menstrual cycle
 - Fallopian tubes
 - Uterus
 - Vagina
- Male:
 - Testes and spermatogenesis
 - Vas deferens
 - Prostate

Semester I

- Penis

12. INTEGUMENTARY SYSTEM:

- Function of skin
- Layers of skin:
 - Epidermis
 - Dermis
 - Connective tissue
 - Function of sweat
 - Function of skin oils
- Appendages:
 - Purpose of hair
 - Purpose of nails

13. GASTROINTESTINAL SYSTEM:

- Organs, Structures and Functions:
 - Mouth
 - Pharynx
 - Esophagus
 - Stomach
 - Duodenum
 - Small and large intestines
 - Liver
- Glands/organs supplying the system:
 - Salivary
 - Pancreas
 - Intestinal wall glands
- Physiological function of each organ of the system
- Digestive juices and enzymes
- Absorption

- Elimination of wastes

Organ	Digestive Juice	Enzyme or Substance	Action
Mouth	Saliva	Amylase	Starch to sugar
Stomach	Gastric juice	Hydrochloric acid Rennin Pepsin (protease) Lipase	Softens and breaks up food Digests milk protein Proteins to peptides Digests fats
Liver	Bile		Emulsifies fats (small particles of fat more easily absorbed)
Pancreas	Pancreatic juice	Trypsin (protease) Lipase Amylase	Proteins to peptides Digests fats Starches to sugars
Small intestine	Intestinal juice	Saccharidases Lipase Peptidase	Complex sugars to monosaccharides Digests fats Peptides to amino acids

14. RADIOLOGIC HEALTH – EFFECTS OF RADIATION ON HUMAN PHYSIOLOGY:

- Nature of radiation
- Types of radiation
- Natural and artificial detection and measurements of radiation
- Radiation protection
- Biological effects
- Medical uses of radiation
- Disciplines within radiology

Anatomy and Physiology I Clinical Description

Clinical Description:

The clinical component of the course provides the learner with an opportunity to enhance basic assessment skills of the structure and function of the organs of the human body. The learner has the opportunity to carry out direct observation on simulators and models in the midwifery arts laboratory to develop relevant knowledge and skills about how the human body works. The practicum allows for collaboration and consultations with the instructor and members of the class.

Clinical Objectives:

At the end of this course, the learner will be able to:

- Identify various body systems and organs using anatomic models
- Participate in the process of assessing factors which directly and indirectly affect an individual's health
- Assesses own strengths and weakness in the implementation of the nursing profession
- Collaborate with instructors and members of the class.

Clinical Placement:

- Clinical skills laboratory

Clinical Skills:

- Identifying body parts
- Listing functions
- Documentation of findings

Resources/Materials:

- Anatomical models
- Lab coats
- Gloves
- Microscopes

Competencies

Knowledge	Attitudes/Behaviors	Skills
Understands the Anatomy and physiology of the human body for own nursing practice	Appreciates the importance of anatomy and physiology to own nursing practice	Applies knowledge of anatomy and physiology in physical assessment of clients for nursing care
Describes the structure of the human body	Recognizes that the human body originates from a cell	Demonstrates ability to assess and examine the client correctly
Describes the functions, regulatory mechanisms and interaction of body systems.	Values the body structures and their functions	Demonstrates ability to draw body parts including systems.

Teaching and Learning Strategies:

- Lectures/discussions
- Group work
- Demonstrations
- Case study
- Self-directed learning
- Reflective diaries
- Simulations

Practical/Clinical Assessment:

- Clinical logs
- Clinical practicum
- OSCE
- Case presentations

Instructional Materials:

Textbooks:

Vogl and Adam W.M. Mitchell, 2009. *Gray's anatomy for students*.

Gerard J. Tortora & Bryan H. Derrickson. 2011. *Principles of Anatomy and Physiology*.

Frank H. Netter, MD., 2010. *Atlas of Human Anatomy, Professional Edition, 5th ed.*

Frederic H. Martini, Ph.D., *Fundamentals of Anatomy and Physiology Van De Graff/Fox. Concept of Human Anatomy and Physiology, 3rd Ed.*, Marieb and Kollett.

Human Anatomy and Physiology Laboratory Manual, Instructors Guide.

Semester I

- Anatomic charts
- Anatomic models
- Skeleton

Course Expectations:

The student is expected to:

- Regularly attend class and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and take examinations on due dates

Assessment Criteria–Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Microbiology

Credits:

3

Placement:

First year, Semester I

Duration:

60 classroom hours

Course Description:

This course is designed to assist the learner in acquiring knowledge of the names, structure, mode of living, effects and control of various microorganisms that affect the health of individuals within their internal and external environment. Emphasis will be placed on common pathogenic microorganisms in West Africa with particular reference to Liberia. Laboratory experiments will enable the learner to apply the principles of microbiology.

Broad Course Objectives:

By the end of the course, the student will be able to:

- Understand the evolution of microbiology
- Use a simple light microscope for examination of microorganisms
- Understand bacterial morphology and physiology
- Understand the system of classifying microorganisms of medical importance, with the diseases which they cause and their general classification
- Utilize the knowledge of characteristics of microorganisms including parasites to prevent infections, and promote and maintain the health of self and others

Specific Objectives:

By the end of the course, the student will be able to:

- Correctly identify parasites under the light microscope
- Correctly discuss the role of the immune system in the pathogenesis of diseases
- Describe general diagnostic methods as applied in microbiology
- Describe various recent advances in diagnostic medical microbiology in the modern health care system
- Make gram-stained slides to identify the type of bacteria present

Course Content:

Unit 1 | Evolution of Microbiology

1. DESCRIBE BRANCHES OF MICROBIOLOGY, GIVE EXAMPLES:

- Bacteriology
- Virology
- Mycology
- Parasitology

2. WITCHCRAFT, RELIGION, BREAKING TABOOS AND BAD SPELLS

3. HISTORIC MICROBIOLOGY:

- List of names and contributions

Unit 2 | Microscopy

1. TYPES OF MICROSCOPES (BRIEF DESCRIPTION AND PRINCIPLES):

- Simple light microscope
- Phase contrast microscope
- Fluorescent microscope
- Dark field (dark ground) microscope
- Electron microscope

2. SIMPLE LIGHT MICROSCOPE:

- Parts and their use

Unit 3 | Morphology and Physiology of Prokaryotes and Eukaryotes

1. PROKARYOTES AND EUKARYOTIC CELLS (GIVE EXAMPLES)

2. HUMAN CELL ANATOMY, STRUCTURE AND FUNCTION:

- Cell membrane
- Nucleus
- Centriole

- Golgi complex
- Endoplasmic reticulum (smooth and rough)
- Mitochondria
- Ribosomes
- Lysosomes

3. BACTERIAL ANATOMY – STRUCTURE AND FUNCTIONS:

- Cell wall
- Cytoplasmic membrane
- Cytoplasm
- Ribosome
- Mesosome
- Intracytoplasmic inclusion
- Nucleus
- Slime layer and capsule
- Flagella
- Fimbriae
- Spore

4. BACTERIAL GROWTH:

- Factors necessary for bacterial growth:
- Source of energy
- Moisture
- pH
- Nutrients
- Bacterial growth curve:
- Log phase
- Log (exponential)

Semester I

- Stationary
- Decline (death)

Unit 4 | Classification of Microorganisms

1. ATMOSPHERIC REQUIREMENT CLASSIFICATION (EXPLAIN AND GIVE EXAMPLES):

- Aerobic
- Anaerobic
- Facultative
- Microaerophilic

2. MORPHOLOGICAL CLASSIFICATION AND ARRANGEMENT (GIVE EXAMPLES):

- Cocci
- Bacilli
- Curved bacilli
- Cocco-bacilli
- Spirochetes

3. SYSTEM NOMENCLATURE:

- Family
- Genus
- Species

4. STAINING REACTION CLASSIFICATION:

- Gram stain principle
- Gram stain procedure
- Gram stain classification:
 - Gram positive
 - Gram negative

- Examples of gram positive cocci:
 - Staphylococcus
 - Streptococcus (pyogenes and pneumococcus)
- Examples of gram positive bacilli:
 - Corynebacteria
 - Bacillus
 - Clostridia
 - Mycobacteria (also acid-fast)
- Examples of gram negative cocci:
 - Neisseria
- Examples of gram negative bacilli:
 - Enterobacteria
 - Vibrionaceae
 - Pseudomonas
 - Parvobacteria
- Ziehl Neelsen staining:
 - Principles
 - Procedure
- Acid-fast staining

Unit 5 | Microbial and Parasitic Infections

1. INFECTIONS:

- Sources, modes and portals of entry
- Predisposing factors
- Attributes of pathogens
- List and describe types of carriers
- Convalescent
- Paradoxical

Semester I

- Contact

Unit 6 | Microbial Diseases

- Signs and symptoms
- Specimen collection
- Preservation
- Transportation
- Common pathogens
- Commensal

1. RESPIRATORY TRACT INFECTIONS:

- Sputum
- Throat swab

2. EAR INFECTIONS: EAR SWAB

3. WOUND INFECTIONS: WOUND SWAB

4. URINARY TRACT INFECTIONS: MID STREAM URINE (MORNING SPECIMEN-MSSU)

5. GASTROINTESTINAL INFECTIONS-STOOL

6. CENTRAL NERVOUS SYSTEM INFECTIONS:

- Types of CNS infections (bacterial, viral, parasitic, fungal, mycobacterial)
- CSF
- Septicemia
- Cultures: blood and CSF

7. SEXUALLY TRANSMITTED DISEASES – SIGNS, SYMPTOMS AND TREATMENT:

- Viral:
 - HIV
 - Warts (complication: warts can cause cervical and vulvar cancer)
 - Herpes

- Bacterial:
 - Gonococci
 - Chlamydia
 - Spirochetes:
 - Syphilis
- Fungal:
 - Candidiasis
- Parasitic:
 - Trichomonas

Unit 7 | Brief Description, General Properties, Diseases Caused and Prevention of Other Medically Important Species

1. SPIROCHETES:

- Borrelia
- Leptospira

2. RICKETTSIAE

3. FUNGI:

- Characteristics of fungi (differences)
- Mycoses
 - Superficial
 - Subcutaneous
 - Deep/systemic
- Treatment

4. PARASITES – DISEASES, PREVENTION AND LIFE CYCLES:

- Protozoa: entamoeba
- Sporozoa: plasmodium

Semester I

- Mastigophora – giardia lamblia:
 - Trypanosoma (sleeping sickness: T. gambiensa in West Africa)
 - Cestodes: taenia saginata
- Trematodes:
 - Schistosoma haematobium
 - Schistosoma mansoni
- Nematodes:
 - Intestinal:
 - Enterobius vermicularis
 - Trichuris trichura
 - Ascaris lumbricoides
 - Ancylostoma duodenale
 - Strongyloides stercoralis
 - Systemic: W. banrofti
 - Subcutaneous: Onchocerca volvulus

Unit 8 | Basic Theoretical Aspects of Immunity

1. ANTIGEN ANTIBODY REACTIONS
2. NON-SPECIFIC IMMUNITY
3. SPECIFIC IMMUNITY
4. FACTORS AFFECTING IMMUNE SYSTEM
5. TYPES OF IMMUNITY
6. DISORDERS OF IMMUNITY

Unit 9 | Prevention and Control of Infections

1. PRINCIPLES
2. LEVELS OF CONTROL:
 - Primary

- Secondary
- Tertiary

3. UNIVERSAL PRECAUTIONS FOR PREVENTION

Unit 10 | Sterilization and Disinfection/Antiseptic

1. DEFINITIONS

2. GENERAL USES

3. TYPES OF HEAT USED:

- Physical:
 - Dry heat - hot air oven, flame
 - Moist heat - autoclave, tyndallization, pasteurization
 - Filtration
 - Radiation
- Chemical and gaseous disinfectants:
 - Bleach (Lysol): sodium hypochlorite solution – releases chlorine
 - Formaldehyde
 - Ethylene oxide

4. ANTISEPTICS:

- Alcohol
- Iodine (povidone)
- Boric acid
- Chlorhexidine 0.05% solution

Unit 11 | Culture/Transport Media

1. COMMON INGREDIENTS

2. CULTURE METHODS

Semester I

3. CULTURE AND SENSITIVITY TESTS:

- Bacterial cultures and media:
 - Nutrient agar
 - MacConkey agar
 - Blood agar
 - Nutrient broth
 - Simple colony morphology
- Antibiotic sensitivity test:
 - Purpose of modified Kirby-Bauer disc diffusion test
 - Antibiotic resistance

4. RECENT ADVANCES IN MICROBIOLOGY:

- Description of PCR
- Purpose of PCR

Teaching/Learning Strategies:

- Lectures/discussions
- PowerPoint
- Demonstrations
- Laboratory

Course Expectations:

The student is expected to:

- Regularly attend class and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and take examinations on due dates

References:

Introduction to Medical Laboratory Technology, 5th Ed., Monica Cheesebrough, 1976.

Practical Medical Microbiology, 14th Ed., Mickie and McCartney, 1996. *Medical Microbiology*, 2nd Ed., Murray, Kobayashi, Pfaller, Rosenthal, 1990. *Clinical and Pathogenic Microbiology*, 2nd Ed., Barbara J.Howard, 1994.

Basic Clinical Parasitology Practice, 5th Ed., Harold W. Brown and Franklin A.

Course Evaluation:

Assessment Criteria – Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Chemistry

Credits:

3

Level:

First year, Semester I

Duration:

60 classroom hours

Course Description:

This course provides an insight to the fundamental concepts, principles, laws and theories in general, organic and biochemistry. The knowledge gained will serve as a foundation for better understanding and assimilation of more complex chemical concepts and reactions.

General Course Objectives:

By the end of this course, the student will be able to:

- Demonstrate the knowledge of the concepts and principles of general inorganic chemistry
- Relate the characteristics of organic functional groups to their structure
- Relate functions of carbohydrates, lipids and proteins to their structure

Specific Course Objectives

By the end of this course, the student will be able to:

- Define a compound, element and ion
- State the number of electrons filling each ring or shell in the first four periods of the Periodic Chart of the Atoms
- Describe how the group (or position) in the first 3 rings of the Periodic Chart determines the valence of the element
- Correctly write the formula for an element in group 2 combining with an element in group 7 (in the first 4 periods)
- Define metals and non-metals
- Define pH
- State what determines if a substance is an acid
- Define ionic bonding

- Describe covalent bonding
- Describe how the chemistry of carbon is related in the chemistry of living things
- Define carbohydrates, lipids, and amino acids

Course Content:

Unit 1 | Inorganic Chemistry

1. STATES AND PROPERTIES OF MATTER:

- Definition of matter
- Describe states of matter with examples: solids, liquids and gasses
- Discuss physical and chemical properties of matter
- Define elements, compounds and mixtures
- Describe kinds of matter with examples: elements, compounds and mixtures
- Describe the properties of metals and non-metals
- Define physical change and chemical change
- Describe the types of chemical reactions with examples: combination, replacement, decomposition and double displacement
- Explain different separation methods of mixtures: filtration, distillation, fractional, sedimentation, extraction, gravitation and chromatography
- Describe some special properties of matter: absorption, adsorption (with examples from the body)

2. THE STRUCTURE OF MATTER AND THE PERIODIC TABLE:

- Define atom, molecule and ion
- Describe the structure of atom with examples: protons, electrons and neutrons
- Define atomic number, mass number and atomic mass
- Describe the rules of the electronic distribution in an atom
- Explain the electronic distribution of some commonly used elements: hydrogen oxygen, sodium, calcium, phosphorus, chlorine, etc.
- List a few examples of physiologically important ions
- Discuss isotopes by using different examples
- Give a brief description of the periodic table: introduction, groups and periods
- Describe the arrangement of the elements in the periodic table
- Describe metallic and non-metallic nature of the elements in the periodic table
- Describe the reactivity trend of group I elements and group VII elements

- Describe transition elements
- State the properties of transition elements

3. CHEMICAL BONDING:

- Define valency, chemical bond
- Discuss why atoms bond
- Give the electrons: dot structures of some common atoms
- Describe different types of bonding with examples: ionic, covalent and metallic
- Compare the properties of ionic compounds with covalent-bonded compounds
- Discuss the medical importance of some common ionic and covalent compounds examples: sodium chloride, magnesium hydroxide, magnesium sulfate, potassium permanganate, aluminum hydroxide, barium sulfate, chloroform, ethanol, acetone, formaldehyde, etc.
- Briefly explain polar and non-polar covalent bonds with examples such as Cl_2 , H_2O , CCl_4 , etc.
- Define oxidation number
- List the rules of assigning oxidation numbers for covalent compounds
- Calculate the oxidation number of an element from formulas
- Write the formula from oxidation numbers

4. CHEMICAL REACTIONS AND EQUATIONS:

- Define symbol, formula and equation with examples
- Write and balance simple chemical equations
- Define relation of chemical reaction, reversible reaction, chemical equilibrium, law of mass action, Le Chatlier's principle and equilibrium constant
- Explain the factors affecting the rate of chemical reaction, nature of reacting substances, temperature, concentration, catalyst (positive and negative catalyst) and surface area
- Discuss the practical application of the above mentioned factors
- Discuss the examples of reversible reaction: hydrolysis esters and hydrolysis of protein
- Discuss the effect of concentration, temperature and catalyst on equilibrium

5. ENERGY CHANGES:

- Define exothermic reaction and endothermic reaction
- Describe the meaning of exothermic (ΔH negative) and endothermic (ΔH positive) reactions in bond forming and bond breaking, example: burning of fuels (wood, coal—exothermic); radioactive isotopes such as ^{255}U as a source of nuclear energy; photosynthesis as the reaction between carbon dioxide and water in the presence of chlorophyll; and using sunlight (energy) to produce glucose

6. RADIOACTIVITY:

- Define radioactivity, natural radioactivity and artificial radioactivity
- Give examples of radioactive atoms
- State different types of radiation and discuss their properties – alpha, beta and gamma
- Define nuclear reaction
- Write equations for nuclear reaction by using symbols
- Discuss the units of radiation
- List a few radioisotopes used in medicine and their medical uses
- Discuss half-life by giving different examples
- Discuss sources of radiation
- List the biological effects of radiation
- List the precautions to be taken to minimize the biological hazards of radiation
- Discuss the safeguards in handling radioactive substances

7. OXYGEN, CARBON DIOXIDE AND WATER:

- Give the occurrence of oxygen
- Discuss the physical and chemical properties of oxygen
- Explain the different types of oxides: acidic oxides, basic oxides, amphoteric oxides and neutral oxides
- Discuss some of the physiologically important oxides: carbon monoxide; sulphur dioxides and nitrous oxide
- List the medical uses of oxygen
- Describe the safety measures to be taken when oxygen is in use

- Define oxidation and reduction (in terms of oxygen, hydrogen, gain/loss, electron transfer and changes in oxidation state)
- Identify redox reactions in terms of hydrogen/oxygen and/or electron and gain/loss
- Define oxidizing agent and reducing agent
- Identify oxidizing and reducing agents in the equation
- Discuss oxidation-reduction reaction taking place in the body, example: carbohydrate
- Discuss the importance of oxidation-reduction: antiseptic affect, stain removal and bleaching action
- List some medically important oxidizing and reducing agents and their importance
- Discuss the physical and chemical properties of carbon dioxide
- State the medical uses of carbon dioxide
- Discuss the safety precautions to be followed during the administration of carbon dioxide
- List some of the medically important carbonates and bicarbonates and their uses, examples: calcium carbonate, magnesium carbonate, calcium bicarbonate and sodium bicarbonate
- Discuss the importance of water with emphasis on physiological aspect of water
- Describe the physical and chemical properties of water
- Discuss the structure of water molecule
- Define hydrates, anhydrous, hygroscopic and efflorescent
- Discuss the impurities present in water
- Explain the purification methods: boiling, distillation, sedimentation, filtration chlorination, aeration and deionization
- Define soft and hard water, and discuss reasons for temporary and permanent hardness
- Explain different methods for the removal of hardness: boiling, addition of ammonium hydroxide, addition of sodium carbonate and zeolite method
- Discuss fluoridation of water
- Define “polluted water”

Semester I

- Classify water pollutants
- State the total body water content and the reasons for variation of the water content: age, individual differences and sex
- Discuss water intake and loss, example: condition, such as kidney function
- Discuss edema and dehydration

8. IONIZATION:

- Discuss the theory of ionization
- Define: electrolyte, non-electrolyte, cation and anion
- Explain the conductivity of solutions
- Discuss the effect of electrolytes on boiling point and freezing point
- Explain the ionization of water
- Discuss the importance of ions in body chemistry
- List some physiologically important ions and their functions

9. CHEMICAL STOICHIOMETRY:

- Define: atomic weight, molecular weight, equivalent weight, relative atomic mass, relative molecular mass, mole, Avogadro's number, molarity, normality, molality and standard solution
- Describe the methods to calculate molarity, normality, percentage composition, number of moles in a given mass of substance and amount of reactant or product from a given equation
- Discuss the preparation of standard solution
- Explain the titration of an acid with base

10. LIQUID MIXTURES – SOLUTIONS, SUSPENSIONS, COLLOIDS AND EMULSIONS:

- Define solution, solute, solvent, suspension and colloid emulsion
- List and compare the general properties of solution, suspension, colloids and emulsions
- Discuss dilute solution, concentrated solution, saturated solution, unsaturated solution, super saturated solution, isotonic solution, hypotonic solution and hypertonic solution

- State the importance of solutions
- Define solubility; discuss the factors affecting solubility, nature of solute and solvent, temperature and pressure
- Describe the special properties of solutions, osmosis, osmotic pressure, osmolarity, diffusion, surface tension (cohesion and adhesion), capillarity and viscosity
- Explain how the above mentioned properties are related physiologically
- Discuss the clinical importance of a nebulizer and the precautions to be taken in its use
- Define: adsorption, Tyndall effect and Brownian movement
- Discuss the application of adsorption property to medication and electrical change of colloids to antidotes
- Discuss the types of colloidal dispersions, sols and gels, dialysis and hemodialysis
- Discuss the function of an artificial kidney machine in dialysis
- Distinguish between temporary and permanent emulsion

11. ACIDS, BASES AND SALTS:

- Define acids, bases and salts with examples
- Discuss acids as proton donor, bases as proton acceptor
- Describe the properties of acids and bases
- List some medically important acids and bases and their uses
- Define pH
- Describe the pH scale to show acidity/alkalinity
- Explain different methods to measure pH, pH meter, universal indicator and lab stick
- Describe the safety precautions in handling and storing acids, bases and other chemicals
- State the types of salts
- Discuss the solubility of common salts
- Explain the chemical reaction of salts hydrolysis with metals and other salts, and with acids and bases
- List some medically important salts and their uses

Semester I

12. BUFFER SOLUTIONS:

- Define buffer solution
- List different buffers in the body, bicarbonate buffers and protein buffers
- Define and discuss acidosis (metabolic) and alkalosis (metabolic)
- Explain what a buffer solution consists of and how it works

Unit 2 | Organic Chemistry

1. INTRODUCTION:

- Define organic chemistry
- Discuss the uniqueness of carbon compounds
- List examples of organic compounds
- Discuss the importance of structural formula for organic compounds in comparison with molecular formula
- Describe the bonding in organic compounds:
 - Single bonds
 - Double bonds
 - Triple bonds
- Explain the classification of organic compounds:
 - Broad classification
 - Fine classification
- Discuss broad classification as open chain and cyclic compounds with examples
- Open chain compounds (aliphatic compounds) as saturated and unsaturated compounds with examples and cyclic compounds as carboxylic or homocyclic, i.e., aromatic and alicyclic and heterocyclic with examples
- Define “functional group”
- List different functional groups with examples:
 - Alcohols
 - Aldehydes
 - Ketones (carbonyl)

- Ethers
- Esters
- Carboxylic acids
- Amines
- Amides
- Amino acids
- Define Isomerism
- Define “homologous series” and state the properties of homologous series of alkenes
- Discuss structural formula
- Discuss IUPAC nomenclature
- Describe the rules followed in naming alkenes by using different examples

2. HYDROCARBONS:

- Define hydrocarbons
- Classify hydrocarbons:
 - Saturated (alkanes)
 - Unsaturated (alkenes, alkynes)
- State the general formula for alkanes, alkenes and alkynes
- State the important source of hydrocarbons
- Describe the physical and chemical properties of saturated and unsaturated hydrocarbons:
 - Combustion
 - Substitution
 - Addition
 - Polymerization
- List some natural and artificial polymers
- State the medical uses of alkanes and alkenes products, ethane, ethene and artificial polymers

Semester I

3. HALO ALKANES:

- Discuss haloalkanes, e.g., methyl and ethyl chloride, chloroform, iodoform, carbon tetrachloride, halothane, enflurane, isoflurane
- Discuss the oxidation of chloroform and precautions to be taken to prevent such reactions

4. ALCOHOLS:

- State the general formula, IUPAC and nomenclature of alcohols
- Describe the types of alcohols: monohydric, dihydric, trihydric, primary, secondary and tertiary with examples
- Discuss the physiological effects of alcohols e.g., methanol, ethanol, etc. and the medical importance of some alcohols:
 - Methanol
 - Ethanol
 - Isopropyl alcohol
 - Ethylene glycol
 - Glycerol
 - Menthol

5. ETHERS:

- State the general formula for ethers
- Discuss simple and mixed ethers e.g., dimethyl ether, diethyl ether and ethyl methyl ether
- Discuss the IUPAC nomenclature and the general properties of ethers:
 - Inertness
 - Peroxide formation
- State the precautions to be taken when ethers are kept in the lab
- State important uses of diethyl ether:
 - Solvent
 - Anesthetic

6. ALDEHYDES AND KETONES:

- State the general formula for aldehydes and ketones

- List the common examples of aldehydes and ketones
- Discuss the physical and chemical properties of aldehydes and ketones:
 - Oxidation
 - Reduction
 - Reducing action
- State the important medical uses of the following aldehydes and ketones:
 - Formaldehyde
 - Glutaraldehyde
 - Paraldehyde
 - Acetone

7. CARBOXYLIC ACIDS:

- State the general formula of carboxylic acid
- Discuss the important properties of carboxylic (physical and chemical) acid:
 - Etherification
 - Acidic reaction (with bases and ammonia)
- List the medical uses of some organic acids:
 - Formic acid
 - Acetic acid
 - Citric acid
 - Lactic acid

8. ACID DERIVATIVES:

- Acid chlorides e.g., ethanyl chloride
- Amides e.g., ethanamide
- Acid anhydrides e.g., ethanoic anhydride
- List some important esters and their medical uses:
 - Nitroglycerine
 - Methyl salicylate
 - Ethyl amino benzoate

Semester I

9. NITROGEN CONTAINING ORGANIC COMPOUNDS:

- Amines, amides and amino acids
- State the general formula of amines, amides and amino acids
- List a few examples of amines and amino acids
- State the type of amines with examples:
 - Primary
 - Secondary
 - Tertiary
 - Quaternary ammonium compounds
- Discuss the important properties of amines e.g., basic nature
- State the medical importance of amines
- State the importance of urea (diamide)
- Discuss amino acids as building blocks of proteins
- State the amphoteric nature of amino acids

10. AROMATIC COMPOUNDS:

- Define aromatic compounds e.g., benzene, toluene, etc.
- Discuss the structure, physical properties, physiological action and uses of benzene and toluene
- Explain the chemical reactions of benzene:
 - Substitution (nitration, sulphonation)
 - Addition (hydrogenation, chlorination)
- Discuss briefly fused ring hydrocarbons: naphthalene, anthracene, etc.
- Discuss the derivatives of benzene (preparation, properties and medical uses):
 - Chlorobenzene (with ammonia and aq. NaOH) formation of aniline, formation of phenol
 - Nitro benzene (reduction)
 - Aniline (basic nature, ester formation)
 - Phenol derivatives

- Benzaldehyde (oxidation, reduction)
- Benzoic acid (acidic reactions, etherification)
- Salicylic acid (formation of methyl salicylate, sodium and salicylate)
- Phenyl salicylate and aspirin
- Define alicyclic compounds
- List examples of alicyclic compounds
- Discuss Baeyer's strain theory
- State properties and uses of cyclopropane
- Define "heterocyclic compounds"
- List a few examples of heterocyclic compounds
- Discuss psychoactive drugs
- Define "alkaloid"
- List a few alkaloids and uses

Unit 3 | Biochemistry

1. CARBOHYDRATES:

- Define carbohydrates
- Classify carbohydrates on the basis of their solubility in water (sugars and non-sugars)
- Discuss sugars, non-sugars, monosaccharides, oligosaccharides and polysaccharides, with examples of each
- Compare the properties of mono and polysaccharides
- Explain the chemical reactions of monosaccharides:
 - Oxidation
 - Reduction
 - Fermentation
 - Reducing action
- State the physiological importance of glucose

Semester I

- Briefly discuss the chemical importance of glucose
- Briefly discuss polysaccharides e.g., starch, cellulose, glycogen, dextrin, heparin, etc.
- Discuss the tests for monosaccharides, reducing sugars and starch
- List the important uses of mono and polysaccharides

2. LIPIDS:

- State the general properties of lipids
- Discuss fatty acids (saturated and unsaturated)
- Classify lipids into simple compounds and derived lipids
- Discuss the chemical nature of fats, oils and waxes
- State the physical properties of fats
- Explain the chemical reaction of fats:
 - Hydrolysis
 - Saponification
 - Hydrogenation
 - Rancidity
 - Compare soaps and detergents

3. PROTEINS:

- Discuss the sources, functions and molecular weight of proteins
- Classify proteins into simple, conjugated and derived proteins
- Discuss amino acids:
 - Composition
 - Amphoteric nature
- Explain the properties of proteins:
 - Peptide formation
 - Hydrolysis
 - Colloidal nature
 - Denaturation

- Explain the conditions causing denaturation
- Discuss the color tests for proteins

4. ENZYMES:

- Define enzymes
- State how the enzymes differ from non-biologic catalysts
- State the properties and physiological importance of enzymes
- Discuss the role of pH, temperature, concentration, etc. upon an enzyme
- Discuss:
 - Activator
 - Inhibitor (specific and non-specific)
 - Apoenzyme
 - Coenzyme
- Explain the enzymatic function
- Discuss the classifications of enzymes

UNIT 4 | PRACTICALS

- Identify and use the laboratory equipment e.g., burettes, pipettes, balances, etc.
- Preparations of standard solutions of different molarity (minimum three preparations e.g., sodium carbonate and sodium hydroxide volumetric analysis)
- Acid base titrations by using various indicators e.g., methyl orange phenolphthalein, etc.
- Reactions of selected functional groups:
 - Alcohols
 - Aldehydes
 - Ketones
 - Acids
- Characteristics tests for:
 - Glucose

Semester I

- Starch
- Proteins
- Fats

Teaching/Learning Strategies:

- Lectures/discussions
- Assignments
- Charts
- Demonstrations

Instructional Materials:

- Textbooks
Basic Chemistry
- Charts: Periodic table

Course Expectations:

The student is expected to:

- Regularly attend class and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and take examinations on due dates

Course Evaluation:

Assessment Criteria – Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Psychosocial (Psychology/Sociology)

Credits:

2

Placement:

First year, Semester I

Duration:

16 weeks (14 instructional and 2 for exams), 28 classrooms hours

Course Description:

This course is a combination of both psychology and sociology and designed to facilitate greater understanding of the principles of human behavior. For the psychological part of the course, the learner will be able to assimilate concepts and theories of psychology with emphasis on growth and development as well as factors influencing behavior across the life span. For sociology, the learner will gain knowledge on society— its characteristics, norms, customs and beliefs, family structures, gender, social determinants of health and their effect on health-seeking behaviors and eventual health outcomes. Enhanced interpersonal communication and counseling skills of health service providers will be stressed in order to promote utilization of services and maximum effectiveness of services provided.

Broad Objectives:

By the end of the course, the student will be able to:

- Define relevant terms and concepts in psychology
- Recognize the various standards of psychological tests and methods of utilization in clinical situations
- Utilize behavioral science principles in all aspects of care
- Manage, including referring, clients with stress and maladaptive behavior
- Apply psychological and sociological concepts in providing emotional support and counseling to patients with both physical and psychological conditions
- Understand the social determinants of health in health promotion, disease prevention and care provision
- Understanding the relevance of interpersonal communication and counseling (IPCC) in behavior change
- Demonstrate skill in using counseling techniques to assist client/patient and develop methods suitable for solving their problems
- Educate patients about stress and its effect on human adaptation and coping

Semester I

Specific Objectives:

As a result of this course, to meet these objectives, the student will be able to:

- Define the various main branches of psychology
- Analyze critical factors of growth and development throughout the life span
- Explain the contemporary perspective used in explaining human behavior
- Describe the theoretical base for psychosocial nursing assessment
- Identify the building blocks of effective coping
- List and explain theories of personality development
- Identify factors that influence human behavior
- Demonstrate skill in using counseling techniques to assist client/patient and develop methods suitable for solving their problems
- Describe effective and ineffective uses of defense mechanisms in physical illness
- Identified IPCC techniques needed to enhance quality of care during interactions with clients
- Use effective communication techniques, including IPCC when counseling
- Interpret the phases of stress and coping
- Define sociology
- Name and outline the functions of social institutions
- Explain cultural beliefs and practices that affect the health of people

Course Content:

1. INTRODUCTION TO PSYCHOLOGY:

- Definition of psychology
- Branches of psychology
- Theories and concepts in psychology
- Importance of psychology to nursing
- Contemporary perspectives that explain human behavior

2. GROWTH AND DEVELOPMENT:

- Definition
- Principles of growth and development
- Factors influencing growth and development:
 - Genetics constitution
 - Environment
- Theories of psychosocial development: intellectual and emotional:
 - Piaget
 - Freud
 - Skinner
 - Erickson

3. PERSONALITY:

- Definition
- Theories of personality
- Personality development
- Personality development
- Factors influencing personality development (psychological, physiological, sociocultural)
- Characteristics
- Personality traits
- Temperament and emotional state:
 - Attitude

Semester I

- Adjustment and defense mechanism
- Frustration and conflict
- Stress
- Psychological effects of being a client
- Anxiety, fear, withdrawal

4. MOTIVATION AND HUMAN NEEDS:

- Definition of motivation
- Theories of motivation
- Motivation theories
- Theories of human needs
- Maslow's hierarchy of needs
- Herzberg's theory

5. MOTIVATION AND THE LEARNING PROCESS:

- Definitions
- Theories of learning
- Forms of learning:
 - Conditioning
 - Trial and error
 - Cognitive
 - Memory
 - Intelligence
 - Psychosocial counseling
 - Psychological assessment

6. SOCIOLOGY:

- Definition of concepts:
 - Socialization
 - Social institutions
 - Function of social institutions

7. CULTURE AND SOCIOLOGY:

- Definition of culture:
 - Cultural practices and beliefs that affect the health of those who practice/believe in them
 - Universal elements/components of culture:
 - Social norms
 - Beliefs
 - Values
 - Customs and practices
 - Cultural practices and beliefs that affect health

8. GROUP STRUCTURE:

- Leadership
- Interpersonal and group relations
- Group dynamics
- Inter group tensions, prejudice and stereotype

9. SOCIAL INSTITUTIONS:

- Family:
 - Definition
 - Types of families
 - Functions
 - Roles and relationships of family members
 - Health and family
- Marriage:
 - Definition
 - Types of marriages
- Gender:
 - Definition
 - Gender roles
 - Gender and health

Semester I

- Gender-based violence

10. SOCIOLOGY AND HEALTH:

- Sociology of illness and health
- Traditional societies
- Taboos and religion
- Social determinants of health
- Culture and health
- Health belief and practices and their influence on health
- Gender and health
- Religion and health
- Relevancy of sociology in health
- Application of sociology in health

11. A THEORETICAL BASE FOR PSYCHOSOCIAL ASSESSMENT:

- Psychosocial assessment in the physical care setting:
 - Liaison psychiatry
 - Mid-level health care contribution to the health care process
 - What is adaptation?
 - Psychosocial assessment factors
- The building blocks of effective coping:
 - Drive theory
 - Affect
 - Object relations
 - The id, ego and super-ego
 - The conscious, subconscious and unconscious
- Nursing theory applied to psychosocial nursing
- The Barry Holistic System model
- Crisis theory

- Effective and ineffective uses of defense mechanisms:
 - Denial
 - Avoidance
 - Conversion
 - Compensation
 - Displacement
 - Regression
 - Reaction formation
 - Rationalization
 - Dissociation
 - Identification
 - Isolation
 - Idealization
 - Projection
 - Substitution

12. PSYCHOLOGICAL MEASURES

13. EFFECTIVE COMMUNICATION, CRISIS AND STRESS:

- Set of values consistently found to accompany the most effective communication style:
 - Empathy
 - Respect
 - Genuineness
 - Positive regard
 - Non-judgmental stance
 - Empowering
 - Practical
 - Confidentiality
 - Ethical conduct
- Ways of responding to someone in crisis

Semester I

- Phases of stress and coping:
 - Stress reaction: acute phase
 - Stress reaction: reaction phase
 - Stress reaction: repair phase
 - Stress reaction: reorientation

14. INTERPERSONAL COMMUNICATION AND COUNSELING:

- Definition/description:
 - Interpersonal
 - Communication
 - Counseling
- Elements
- Essential concepts related to IPCC:
 - Perception
 - Values
 - Attitude
- IPCC and the rights of the client:
 - Every health client has the right to:
 - **Information:** To learn about the benefits and availability of services
 - **Access:** To obtain services regardless of sex, creed, color, marital status or location
 - **Choice:** To decide freely whether to practice any service and which service to use
 - **Safety:** To be able to practice safe and effective health services
 - **Privacy:** To have a private environment during counseling or services
 - **Confidentiality:** To be assured that any personal information will remain confidential
 - **Dignity:** To be treated with courtesy, consideration and attentiveness
 - **Comfort:** To feel comfortable when receiving services
 - **Continuity:** To receive contraceptive services and supplies for as long as needed
 - **Opinion:** To express views on the services offered

- IPCC techniques:
 - Listening
 - Questioning
 - Paraphrasing and summarizing
- IPCC and GATHER:
 - Six steps:
 - **GREET** the clients (establishing rapport)
 - **ASK** clients (gathering information)
 - **TELL** (provide information)
 - **HELP** the client (this is the decision-making or problem-solving moment)
 - **EXPLAIN** to the client (uses client education material to help the client remember key information specific to that decision)
 - **RETURN/REFER/REALITY CHECK** (advice concerning when to return for follow-up or re-supply and to do a reality check with the client)
- IPCC and essential components of effective counseling:
 - Establishing rapport (Greet)
 - Gathering information (Ask)
 - Providing information (Tell)
 - Helping client make a decision, solve a problem (Help, Explain)
 - Next steps (Return)
- IPCC and IEC materials:
 - What are IEC materials:
 - Flip charts
 - Brochure
 - Posters
 - Pamphlets
 - Booklets
 - Cue cards
- Barriers to use of IEC materials:
 - They are not available (stored away or not at the service site)
 - Don't know the importance of using

Semester I

- Lacking knowledge on how to use them
- Language barrier (if in the local language)
- They need more time to use
- Negligence
- Assume client already knows so no need to see them
- Not told by supervisor to use them
- Using them takes too much time
- Advantages of using IEC materials:
 - For provider:
 - Attract the client's attention
 - Trigger discussion and help bring up questions from clients
 - Make something small big enough to be visible (e.g., eggs, types of IUD)
 - Compare similarities and differences (e.g., types of IUD)
 - Show steps in doing something (e.g., insertion of IUD)
 - Show changes (e.g., growth of a fetus from conception to delivery)
 - Make complete ideas easy to understand
 - Show something that cannot be seen in real life (e.g., position of IUD in the uterus)
 - Help when discussing a sensitive topic such as FP or HIV/AIDS
 - Clients can take print materials home as reminders
 - Clients can share print materials with spouse and friends
 - For client:
 - Help to make the best decision
 - Help to understand what to expect when making a particular decision
 - Help to remember the accurate usage/treatment
 - Help to understand how contraceptive method works inside the body (as an example)
 - Can be taken home to be a reminder
 - Can be shown/distributed to partner or friends
 - For provider:
 - No opportunity for discussion unless service provider reviews with clients

- Can be expensive to produce
- If not well made, pages may tear when flipping over
- For the client:
 - Less effective with people who do not read
 - Can be easily lost and sometimes are thrown out without reading
 - The message may not be understood by audience; may need explanation
 - Not good for large groups
 - Audience may not remember everything if there is too much information
- Methods of counseling
- Attitudinal measurement
- Intelligence tests
- Sociometry

Psychosocial Practicum Description

This provides an opportunity for learners to carry out psychosocial assessment for clients and initiate counseling where indicated. The learner will work in various setting under the supervision of the course instructor to develop relevant and appropriate interventions to promote health and prevent diseases amongst individual, families and communities. The practicum also allows for collaboration, consultation and forging of partnerships with various stakeholders in the provision of care.

Objectives:

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

- Assess clients for signs of psychosocial disturbances
- Apply psychological and sociological concepts in the counseling of clients
- Collaborate with individuals, families and community to influence positive health behavior
- Analyze the effects of culture and religion on health promotion and health seeking behaviors in communities
- Integrate social determinants of health related to customs, social norms and gender in the promotion of health and care provision to individuals, families and communities

Placement:

- Communities
- Schools
- Hospitals/clinics

Competencies

Knowledge	Attitudes/Behaviors	Skills
Behavioral and social sciences Philosophy, the arts and humanities	Values liberal learning as a solid foundation for the development of the clinical judgment skills required for the practice of professional nursing and critical thinking	Applies knowledge regarding social, political, economic and historical issues to the analysis of societal and professional problems Appreciates cultural differences and bridges cultural and linguistic barriers Understands the nature of human values

Knowledge	Attitudes/Behaviors	Skills
Understands the physiological, psychosocial, developmental, spiritual, and cultural influences on effective communication	Values individual cultural and personal diversity Respects persons' rights to make decisions in planning care	Chooses the right setting and time to initiate conversation Assesses the patient's readiness/willingness to communicate
Demonstrates knowledge of diverse traditional and religious practices of individuals, families and communities	Appreciates the effects of traditional and religious practices on the health of individuals, families and communities	Incorporates harmless traditional and religious practices of different communities in rendering health care. Educates individuals, families and communities on harmful practices related to health.
Describes advocacy skills necessary for health promotion	Recognizes own professional responsibility in advocating for all clients	Seeks information from different sources on behalf of the client(s) regardless of gender, race, color, creed and physical abilities
Utilizes knowledge on family structures to influence the health of individuals, families and communities	Recognizes the importance of family-centered care in health promotion and care provision to individuals, families and communities	Identifies social problems and provides interventions in partnership with clients and family members
Analyzes social determinants of health	Recognizes social factors that promote health or hinder positive health-seeking behaviors	Identifies social risk health factors affecting the health of individuals, families and communities
Describes the effects of culture, religion and gender on health promotion	Recognizes societal values and beliefs about health	Demonstrates cultural and gender sensitivity in the provision of care

Teaching/Learning Strategy:

- Illustrated lectures
- Group discussions
- Group presentations

Instructional Materials:

- References
- Textbooks:
Psychology.
Developmental Psychosociology.

Semester I

Psychosocial Nursing Assessment and Intervention, P.D. Barry.

Handouts

Course Expectations

The student is expected to:

- Regularly attend class and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and take examinations on due dates

Course Evaluation:

Assessment Criteria – Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Introduction to Information Communication Technology (ICT) & Research Methodology

Credits:

2

Duration:

16 weeks (14 instructional and 2 for exams)

28 classrooms hours

48 lab hours

Placement:

First year, semester I

Introduction/Course Description:

The increasing application of information communication technology (ICT) to all spheres of human endeavor makes it important that the health workers stay abreast of ICT and its application to health care. This course is designed to introduce the student to ICT and its importance to health care delivery and enable the student to apply and demonstrate the concepts of information communication technology in the health care delivery system.

General Objectives:

- Describe and classify computers
- Explain the components of computers and computer-based systems
- Demonstrate basic concepts and computer skills
- Demonstrate competence in computer operation
- Describe the use of various software programs designed to assist in specific computer-based activities
- Demonstrate the ability to use software programs in task completion
- Demonstrate competency in the use of the computer in communication
- Demonstrate the use of the computer to access web-based information and resources
- Work in an interdisciplinary team to make ethical decisions regarding the application of technologies and the acquisition of data
- Use appropriate technologies in the process of assessing and monitoring patients

Semester I

- Adapt the use of technologies to meet patient needs
- Protect the safety and privacy of patients in relation to the use of health care and information technologies
- Use information technologies to enhance one's own knowledge base

Specific Objectives:

By the end of the course, the student will be able to:

- Perform basics foundational computer skills
- Manage files and folders
- Create and edit documents
- Create and edit slide-based presentations
- Find Information on the World Wide Web
- Communicate with others using electronic mail
- Create and edit spreadsheets
- Use appropriate technologies in the process of assessing and monitoring patients

Course Content:

PART I – INTRODUCTION TO THE COMPUTER

Unit I | Foundational Computer Basics

1. DESCRIPTION AND CLASSIFICATION OF COMPUTERS

- Evolution of computers
- Classification of computers

Unit 2 | System Components

- Hardware – descriptions and functions
- Input Devices:
 - Central processing unit/hard drive
 - Control unit – arithmetic logical unit (ALU)
 - Secondary or auxiliary storage
 - Monitor
 - Keyboard
 - Mouse
 - Disk drive
 - External storage devices:
 - Flash drive
 - External hard drive
 - Cameras and other peripheral devices
 - Main memory
- Software
- System program
- Application program
- Utility program
- Translation program
- Search software:
 - Internet Explorer

Semester I

- Output devices:
 - Printer
 - Visual display/monitor
 - Plotters, etc.
 - Scanners
- Main memory:
 - Read only memory (ROM)
 - Random access memory (RAM)
- Function of main storage:
 - Input storage area
 - Working storage area
 - Program area
 - Output area
- Computer files:
 - Logical files, physical files, reference files
- File arrangement:
 - Random access, sequential, index sequential
- File processing:
 - Batch processing, online processing, real-time processing, multi-user
- Storage (secondary or auxiliary storage):
 - Hard disk
 - External hard drives
 - Storage capacities
 - USB flash drive, CDs, etc.
- Computer use for data creation and processing:
 - Data creation
 - Data transmission
 - Data processing and analysis

- Computer packages e.g., Minitab, SPSS, Epi. info
- Manage files and folders:
 - The concept of the desktop
 - Opening My Computer
 - Opening and closing windows
 - Navigating folders
 - Renaming files and folders
 - Copying and pasting files and folders
 - Deleting files and folders
 - Restoring items from the recycle bin
 - Turning off the computer
- Computer used for data creation and processing
 - Data creation
 - Data transmission
 - Data processing and analysis
 - Computer packages e.g., Minitab, SPSS, Epi.info
- Basic concepts and analytic skills:
 - Software:
 - System program
 - Application program
 - Utility program
 - Translation program
 - Basic operating system software:
 - Microsoft Windows
 - Microsoft Office:
 - Email
 - Word
 - PowerPoint
 - Excel
 - Other accessory programs

Semester I

- Creating documents:
 - Launching Microsoft Word
 - Adding text to the document
 - Formatting text
 - Font and size
 - Bold, italics and underline
 - Alignment
 - Bulleted list
- Inserting objects:
 - Clip art and pictures
 - Shapes
 - Tables
 - Saving the document
 - Opening existing documents
 - Closing Microsoft Word
- Creating slide-based presentations:
 - Launching Microsoft PowerPoint
 - Adding a title and subtitle
 - Adding a new slide
 - Changing the slide layout
- Formatting text:
 - Font and size
 - Bold, italics and underline
 - Alignment
 - Bulleted list
- Inserting objects:
 - Clip art and pictures
 - Shapes
 - Tables

- Running a slide show
- Saving the document
- Opening existing presentations
- Closing Microsoft PowerPoint
- Creating spreadsheets:
 - What is a spreadsheet
 - Introduction to Excel Tools
 - Manipulating the cell
 - How to print an Excel sheet
 - Closing Excel

Unit 2 | Use of the Internet

- Computer security:
 - Computer viruses
 - Protective security software
 - Rules for the “safe” use of computers to avoid viral contamination
- Communication – Networking, internet and email:
 - Email
 - Skype
- Find information on the World Wide Web (“Web”):
 - Launching Internet Explorer
 - Accessing Google using the address field
 - Searching for information using Google and search terms
 - Using hyperlinks to access web pages
 - Navigating website menus
 - Analyzing the quality of information on the Web
 - Closing Internet Explorer

Semester I

- Communicate with others using email:
 - What is the electronic mail?
 - Programs use for emails
 - Web mail vs. POP/IMAP
 - Sending attachment
 - Email vs. FAX/Postal
 - Choosing the right one
 - Exiting
- ICT in health care:
 - Electronic/digital devices:
 - Diagnostic devices: ultra sound scan, CT scan, MRI, fluoroscopy, etc.
 - Monitoring devices: oximeter, cardiac monitor, etc.
 - Treatment devices: radiotherapy, physiotherapy, surgery, chemotherapy
 - Telemedicine
 - Information search: research, evidence-based care, etc.
 - Effect of ICT on quality nursing care

Information Communication Technology Laboratory I

Laboratory Practice Description:

The laboratory component of this course provides the learner with an opportunity to enhance basic assessment skills of the computer. The practicum gives the learner an opportunity to carry out direct observation and hands-on activities in a computer laboratory to develop relevant knowledge and skills in knowing how to use a computer for evidence based information in the diagnosing and treatment of patients. The practicum allows for collaboration and consultations with the instructor and members of the class.

Objectives:

At the end of this course, the learner will be able to:

- Boot a computer
- Manage files and folders
- Create and edit documents
- Create and edit slide-based presentations
- Find Information on the World Wide Web
- Communicate With others using electronic mail
- Create and edit spreadsheets

Clinical Placement:

- Computer laboratory

Skills to be Learned:

- Booting and shutting down the computer
- Launching Windows
- Creating and saving a document
- Making changes to a document
- Inserting save text
- Reorganizing a document outline
- Finalizing a document

Semester I

- Formatting text
- Preparing PowerPoint slides and presentations
- Launching and browsing the World Wide Web
- Using the WWW as a research tool

Resource Materials:

- Computers
- Software drivers

Competencies

Knowledge	Attitudes/Behaviors	Skills
<p>Describes examples of how technology and information management are related to the quality and the safety of patient care</p> <p>Recognizes the time, effort, and skill required for computers, databases, and other technologies to become reliable and effective tools for patient care</p>		<p>Responds appropriately to clinical decision-making supports and alerts</p> <p>Uses information management tools to monitor outcomes of care processes</p> <p>Works in an interdisciplinary team to make ethical decisions regarding the application of technologies and the acquisition of data</p> <p>Uses applications for structured data entry (e.g., patient acuity or classification)</p> <p>Uses high-quality electronic sources of health care technology to deliver care across settings</p>

Assessment:

- Practical assessment including OSCE for practical exams
- Performance identification of the computer

Teaching/Learning Strategies:

- Classroom presentations
- Group exercises
- Demonstration

- Coaching
- Homework and laboratory assignments

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Assessment:

- Practical assessment including OSCE for practical exams
- Performance identification of the computer

References:

Data communication and networking, William A. Shay.
Computer mathematics, Shaum Publishing Company, 1999.
Ed. Paulson, 1996. The Complete Communications Handbook, 2nd edition, word ware publishing, Inc.

Required Resources:

- Computer

Course Title: Fundamentals of Nursing I

Credits:

4

Placement:

First semester of first year

Duration:

16 weeks (14 instructional and 2 for exams)

56 hours classroom

112 hours laboratory

Course Description:

This course is the first phase of Fundamentals of Nursing that is designed to provide beginning nursing skills (cognitive, psychomotor, and affective) to students in providing nursing care. It also provides knowledge about nursing history and values, professionalism, patient care and universal infection prevention precautions, as well as the code of ethics in nursing practice.

Broad Course Objectives:

- Discuss the history of nursing as a profession
- Build comfortable interpersonal relationships with patients/peers and health care team members using communication techniques
- Use the nursing process in client care
- Utilize universal precautions in nursing care
- Understand the need of proper nursing care given to all clients
- Understand the role of nursing in the health care delivery system of Liberia

Specific Course Objectives:

Upon completion of this course, the student will be able to:

- Discuss the origin of nursing as a profession
- Discuss the role of a nurse in the health care delivery system
- Identify the structure and functions of health care institutions and agencies
- Describe the basic concepts and tools relevant to nursing practice
- Explain the principles of diagnostic procedures
- Demonstrate the basic nursing procedures

- Use the nursing process in client care
- Utilize universal precautions in nursing care

Course Content:

Semester I

Unit I | Trends and Perspectives of Nursing

1. HISTORY OF NURSING:

- Trends in Nursing
- Nursing theory and theorists
- Nursing and midwifery in Liberia

2. HISTORY OF NURSING EDUCATION IN LIBERIA

3. ROLE OF THE NURSE:

- Family
- Community
- Health facilities
- Donors/NGOs/partners
- Nation

Unit II | Health Care Delivery and the Health Team

1. ROLE OF THE NURSE IN THE HEALTH CARE DELIVERY SYSTEM:

- Definitions
- Classifications
- Qualifications
- Job description
- Role of health team members
- Ethics and clinical approaches

2. LEGAL AND ETHICAL CONSIDERATIONS:

- Negligence and malpractice
- Criminal acts
- Code of ethics
- Nursing and midwifery boards
- Nurse practice acts

- Nursing and midwifery associations

3. HEALTH CARE DELIVERY SYSTEM:

- Organogram
- Services:
 - Preventive versus curative
 - Primary
 - Secondary
 - Tertiary
- Challenges:
 - Financial
 - Personnel
 - Transportation
 - Drug and supplies
 - Communication
 - Maintenance

4. COMMUNICATION:

- Levels:
 - Intrapersonal
 - Interpersonal communication
 - Public
- Elements
- Modes
- Factors influencing communication
- Therapeutic communication

Unit III | Principles for Nursing Practice

- Critical thinking and nursing judgment

Semester I

- Nursing process:
 - Assessment
 - Diagnoses
 - Plan
 - Implementation
 - Evaluation
 - Documenting, reporting and, conferring including care plans, hospital charting
- Vital signs and patient measurement:
 - Temperature:
 - Heat production
 - Heat loss
 - Heat regulation
 - Fever – causes, nursing care of patient with a fever
 - Pulse:
 - Characteristics of pulse
 - Sites and methods of taking a pulse
 - Types of pulse
 - Factors causing variation in pulse
 - Respiration:
 - Normal respiration
 - Breath sounds
 - Regulation of respiration
 - Factors causing variation
- Blood pressure:
 - Arterial and Venous BP
 - Equipment and method of taking a BP
 - Factors causing variation in BP
- Health assessment and physical examination:
 - Techniques in P.E.:
 - Observation
 - Auscultation

- Percussion
- Palpation
- Height and weight
- Infection prevention and control:
 - Infection cycle
 - Methods of Infection control:
 - Sterilization
 - Disinfection
 - Medical asepsis
 - Surgical asepsis
 - Isolation techniques
- Collection of specimens and selected diagnostic procedures:
 - Urine
 - Stool
 - Blood
 - GI
 - Sputum
 - Discharge from body
 - X-ray
 - Electrocardiography

5. COMFORT MEASURES:

- Causes of discomfort:
 - Pain
 - Environmental factors
 - Poor body alignment
 - Anxiety and fear
- Measure to promote sleep:
 - Importance of sleep
 - Factors that influence sleep

Semester I

- Nursing care to promote sleep
- Body mechanics:
 - Principles
 - Helping patient to ambulate
 - Range of motion
 - Moving, turning, lifting the patient
- Position of the patient:
 - Principles
 - Different positions:
 - Dorsal recumbent
 - Trendelenburg
 - Lateral
 - Knee-chest
 - Jack knife
 - Sims
 - Prone
 - Lithotomy
 - Protective positions:
 - Supine
 - Fowler's
 - Side lying
 - Prone
- Nursing Interventions for a patient with discomfort:
 - Medications
 - Application of heat and cold
 - Rest and sleep

6. HYGIENE:

- Types of bath:
 - Self-bath
 - Complete bath

- Partial bed bath/sponge bath
- Therapeutic bath
- Mouth care
- Care of the skin, hair, feet, nails, eyes, nose, ear, perineal and vaginal areas

7. BED MAKING:

- Types of beds
- Open bed
- Closed bed

8. RESTRAINTS

9. PROBLEMS OF IMMOBILIZATION:

- Decubitus ulcer:
 - Prevention
 - Treatment
- Constipation
- Respiratory problems
- Muscle-skeletal problems

10. NUTRITION:

- Basic principles
- Alternative food needs:
 - Dysphagia
 - Feeding tube - NG (enteral tube feeding)

11. ADMISSION AND DISCHARGE:

- Admission of patients:
 - Patient history
 - Patient data:
 - Objective
 - Subjective

Semester I

- Orientation to the hospital
- Discharge and transfer of patients:
 - Policies and procedures
 - Discharge instructions
 - Follow-up instructions/when to return to the clinic

Clinical Course Description

During the clinical component of Fundamentals, the student will begin to learn basic skills that will the student to progress to more complex skills. The course will equip the learner with knowledge, skills and attitudes required to provide comprehensive nursing care to individuals, families and communities. The theory obtained will be applied in the clinical settings in the process of developing the required skills.

Clinical Objectives:

On completion of this clinical course, the learner will be able to:

- Conduct assessment of patients, individuals and communities
- Build a working relationship with individuals and families with regard to self-care
- Demonstrate safe practice in executing designated nursing skills
- Provide for physical safety of patient
- Protect patient from emotional harm
- Seek assistance from instructor or other health care member for care which is beyond the learner's level of knowledge or experience
- Comply with hospital policies and procedures
- Provide first aid to clients with- in emergency conditions
- Provide basic nursing care to clients across the life span

Clinical Placements:

- General wards
- Clinical laboratory skills

Practical Skills:

- Admitting, discharging, and referring patients
- Documenting procedures
- Properly performing hand washing procedures
- Making occupied and unoccupied beds
- Performing various types of bed baths
- Providing oral care

Semester I

- Measuring heights and weights
- Measuring vital signs
- Practice filling in Nursing Care Plan Template
- Moving, lifting and positioning patients
- Caring for hair, nails, perineum and vaginal areas
- Serving meals
- Feeding clients
- Inserting various tubes (NG, flatus, etc.)
- Oxygen administration
- Specimen collection and disposal
- Suctioning
- Decontaminating instruments
- Bandaging and splinting
- Using protective clothing (gloves, gowns, masks, etc.)

Competencies

Knowledge	Attitudes/Behaviors	Skills
Understands components of nursing process appropriate to individual, family, group, community, and population health care needs across the life span (nursing process)	Values use of scientific inquiry, as demonstrated in the nursing process, as an essential tool for provision of nursing and midwifery care Respects and encourages the patient's/client's input relative to decisions making about proposed health care	Conducts clinical interview, develops and implements care plan, and evaluates the provision of care Demonstrates cognitive, affective, and psychomotor nursing skills when delivering patient care

Knowledge	Attitudes/Behaviors	Skills
<p>Integrates understanding of activities of daily living in the provision of patient centered care:</p> <ul style="list-style-type: none"> - Information, communication, and education - Physical comfort and emotional support - Mobility and homeostasis needs. - Involvement of family and significant other 	<p>Respects and encourages individual expression of patient values, preferences, and needs</p> <p>Values the patient's expertise with own health and symptoms</p>	<p>Performs competently basic nursing skills:</p> <ul style="list-style-type: none"> - Bed making, vital signs, bed bath, eye care, hair and mouth care, feeding, medication administration, elimination, ambulation, prevention and care of pressure sores, wound dressing, infusion/transfusion, hygiene needs, recording and reporting, care of the dying patient, suture removal, basic emergency care (first aid) - Demonstrates caring behaviors toward patient, significant others, and groups of people receiving care - Communicates patient values, preferences, and expressed needs to other members of health care team - Seeks information from appropriate sources on behalf of patient, when necessary
<p>Demonstrates understanding of the concepts of pain, palliative care, and quality of life (pain management)</p>	<p>Appreciates the role of the nurse in relieving all types and sources of pain and suffering</p> <p>Recognizes personally held values and beliefs about the management of pain and suffering and end-of-life care</p>	<p>Assesses presence and extent of physical and emotional comfort</p> <p>Elicits expectations of patient and family for relief of pain, discomfort, or suffering and end-of-life care</p> <p>Initiates treatments to relieve pain and suffering in light of patient values, preferences, and expressed needs</p>
<p>Understands the roles and responsibilities in Infection Prevention and Control (IPC):</p> <ul style="list-style-type: none"> - Transmission of infections - Nosocomial infections 	<p>Recognizes that both individuals and systems are accountable for infection prevention and control</p> <p>Appreciates the importance of Post Prophylaxis Exposure (PEP)</p>	<p>Uses appropriate strategies to reduce transmission of infection</p> <p>Demonstrates effective use of technology and standardized practices that support safe practice</p> <p>Applies Universal Precautions in provision of care</p>

Semester I

Knowledge	Attitudes/Behaviors	Skills
Describes legal and regulatory factors that apply to nursing practice	Values professional standards of practice Values and upholds legal and regulatory principles	Uses recognized professional standards of practice Implements plan of care within legal, ethical, and regulatory framework of nursing and midwifery practice Complies with mandated reporting regulations (proper documentation)
Identifies own strengths, limitations, and values in functioning as a member of a team	Recognizes responsibility for contributing to effective team functioning Values the perspectives and expertise of other team members. Appreciates the importance of collaboration	Demonstrates self-awareness of strengths and limitations as a team member Initiates plan for self-development as a team member Acts with integrity, consistency, and respect for differing views

Teaching/Learning Strategies:

- Classroom presentations
- Group exercises
- Educational games
- Demonstration
- Coaching
- Simulations
- Homework and laboratory assignments

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Required Resources:

- Library
- Skill lab
- Internet
- Blackboard/flip chart
- Notebook/handout

Practical/Clinical Assessment:

- Clinical logs
- Clinical practicum
- OSCE
- Case presentations

Course Evaluation:**Assessment Criteria—Standard Grading System:**

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

References:

Evans-smith, Pamela. *Taylor's Clinical Nursing Skills: A Nursing Process Approach*. Lippincott, Williams and Wilkins, Philadelphia. 2005.

Potter, Patricia, and Perry, Anne Griffin. *Basic Nursing: Essentials of Practice*, Mosby, 2003.

Taylor, Carol. *Fundamentals of Nursing: the ART and Science of Nursing Care*. Lippincott, Williams, and Wilkins. Philadelphia. 2001.

Fundamentals of Nursing Made Incredibly Easy, Lippincott.

Jhpiego Infection Prevention Manual.

Semester II | Course Outline

Ethical & Professional Adjustment Nutrition

Fundamentals of Nursing II

Tropical and Communicable Diseases

Anatomy & Physiology II

PHC I

Course Title: Ethical and Professional Adjustment

Credits:

2

Duration:

16 weeks (14 instructional and 2 exams)

Semester 2

28 Classroom hours

Placement:

Second year semester I

Pre-requisites:

All first year semester courses

Course Description:

This course is designed to provide an introduction into the professional, legal and ethical frameworks used in decision-making in nursing. It provides opportunities for discussion of concepts on moral and ethical responsibilities related to nurses, patients and institutions and gives the foundation for Nursing Management. It provides the learner with skills to help deal with ethical and religious dilemmas and to help clients in making responsible choices about their social well-being. Principles of professional practice and professional regulation in nursing and midwifery will be highlighted as a foundation upon which practice will be built. The learner will be introduced to professional, ethical and legal concepts relevant to the practice of nursing.

Broad Objective:

After completing this course, students will be able to

- Apply ethical principles in making professional judgments as nurses
- Apply ethical theories and principles when addressing ethical issues in the practice of nursing
- Utilize professional practice principles to guide nursing practice
- Understand the importance of practice within the scope of practice as provided for in law
- Demonstrate awareness of rights and obligations in the delivery of nursing care
- Analyze factors that impact on self-regulation and professional practice

Semester II

Specific Objectives:

By the end of this course, the student will be able to:

- Define ethics
- Discuss the nursing code of ethics
- Describe the ethical principles and theories
- Discuss the ethical responsibilities of the nurse
- Discuss ethical practices and responsibilities of the nurse (attitudes, non-judgmental, non-physician and non-discriminatory)
- Identify ethical and religious concerns at the clinical area
- Identify religious concerns at the clinical area
- Demonstrate respect for religious and other beliefs
- Describe ways ethical decisions are made
- State the legal procedures for practices and licensure of Registered Nurses
- State and discuss ways of approaching ethical issues
- State Kohlberg's theory of moral development
- differentiate between personal values, societal values, professional values, organizational values and moral values

Course Content:

1. INTRODUCTION TO ETHICS

2. ORIGIN OF ETHICS:

- Definition of ethics

3. ETHICAL PRINCIPLES AND DUTIES:

- Autonomy
- Beneficence
- Non-maleficence
- Veracity
- Confidentiality
- Justice
- Fidelity
- Disclosure

4. ETHICAL THEORIES:

- Utilitarianism
- Deontology
- Egoism
- Christian approach
- Ethical decision-making models

5. DIFFERENT WAYS OF APPROACHING ETHICAL ISSUES:

- Non-rational approach:
 - Obedience
 - Imitation
 - Feeling or desire
 - Intuition
 - Habit
- Rational approaches:
 - Deontology

Semester II

- Consequentialism
- Principlism
- Virtue
- Basis for ethical decision-making:
 - Personal values
 - Societal values
 - Moral values

6. RIGHTS AND HEALTH CARE:

- Nurse's rights and responsibilities
- Patient rights and responsibilities
- Patient rights as human rights
- Reproductive health laws

7. ETHICAL DILEMMAS IN HEALTH CARE

8. USE OF ETHICAL DECISION-MAKING MODELS

9. ETHICS AND MORALITY:

- Kohlberg's Theory of Moral Development:
 - Level I – Pre-Conventional level
 - Level II – Conventional level
 - Level III – Post-Conventional level

10. NURSING AND ETHICS

11. WHAT IS NURSING ETHICS

12. PRINCIPLES OF NURSING ETHICS:

- Secrecy ethics
- Office ethics
- Professional ethics
- Professional courtesy
- Privileged communication

- Confidentiality
- Preferential treatment
- Ethics and law:
 - Sources of law
 - Types of law
- Nursing/medical legal terminology:
 - Fraud
 - Right to privacy
 - Invasion of privacy
 - False imprisonment
 - Defamation
 - Slander
 - Libel
 - Assault
 - Battery

13. IMPLICATIONS OF LAW ON NURSING PRACTICE:

- Negligence
- Misconduct
- Malpractice
- Negligence
- Criminal acts:
 - Theft
 - Self-medication
 - Illegal abortions
 - Adolescent sexual and reproductive health
 - Tip and gifts/nutrition

14. CODE OF ETHICS FOR NURSES:

- Ethical concepts applied to nurses

Semester II

- Nurses and people
- Nurses and practice
- Nurses and society
- Nurses and co-workers
- Nurses and the profession
- Confidentiality/informed consent

15. NURSE PRACTICE ACT OF LIBERIA:

- The Nightingale Pledge
- LNA Pledge
- International Pledge

16. PHILOSOPHY:

- Principles
- Objectives role of professional organizations and ethics:
 - Active membership
 - Support of the organization
- Organizations And ethics:
 - SNA – Student Nurses Association
 - LNA – Liberian Nurses Association
 - WACN – West African College of Nursing
 - LPHA – Liberian Public Health Association
 - LMC – Liberian Midwives Council
 - WHO – World Health Organization
 - ICN – International Council of Nursing
 - UNICEF – United Nations Children Funds
 - Planned Parenthood Association of Liberia/Family planning
 - International Red Cross
- Traditional Practices Association

- Professional adjustment: Orientation to group living:
 - Professional obligations
 - Adjustments to school
 - Adjustments to others
 - Attitudes toward discipline
 - Grooming and uniform
 - Personal hygiene
 - Honesty and integrity
 - Loyalty and confidentiality
 - Manners
 - Job opportunities and the job market
 - Educational opportunities – self-development
 - Life-long learning

Competencies

Knowledge	Attitudes/Behaviors	Skills
Understands the concept of accountability for own actions	Accepts responsibility for own behavior	Demonstrates accountability for own actions in the practice of your profession.
Describes legal and regulatory factors that apply to midwifery practice	Values professional standards of practice Values and upholds legal and regulatory principles	Uses recognized professional standards of practice Implements plan of care within legal, ethical, and regulatory framework of nursing practice Complies with mandated reporting regulations
Describes the role of professional organizations shaping the practice of midwifery	Values the mentoring relationship for professional development	Participates as a member in professional organization Complies with the mandates of professional organizations

Semester II

Knowledge	Attitudes/Behaviors	Skills
Understands ethical principles, values, concepts, and decision-making that apply to midwifery and patient care	Values the application of ethical principles in daily practice Values acting in accordance with codes of ethics and accepted standards of practice Clarifies personal and professional values and recognizes their impact on decision-making and professional behavior	Incorporates Nurses Code of Ethics into daily practice Utilizes an ethical decision-making framework in clinical situations Identifies and responds to ethical concerns, issues, and dilemmas that affect nursing practice Participates in efforts to resolve ethical issues in daily practice Recognizes moral distress and seeks resources for resolution Applies a professional code of ethics and professional guidelines to clinical practice
Understands role and responsibilities as patient advocate	Values role and responsibilities as patient advocate	Serves as a patient advocate

Teaching/Learning Strategies:

- Classroom presentations
- Group exercises – role plays
- Case studies
- Educational games
- Demonstration
- Coaching
- Homework assignments

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Required Resources:

- Library
- Skill lab
- Internet
- Blackboard/flip chart
- Notebook/handout

Instructional Materials:**References:**

NURSING Ethics Manual, World NURSING Association,
www.wma.net/ethicsunit/education.htm

Ethics, Law and Society, Volume II, Jennifer Gunning.

Ethics and Issues in Contemporary Nursing, Margaret A. Burkhardt and Alvita K. Nathaniel.

Resolving Ethical Dilemmas, A Guide for Clinicians, Bernard Lo.

Medical Ethics Manual, World Medical Association,
www.wma.net/ethicsunit/education.htm

Case Studies in Nursing Ethics, Robert M. Veatch and Sara T. Fry.

Handouts

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Fundamentals of Nursing II

Credits:

5

Placement:

First year Semester II

Duration:

16 weeks (14 instructional and 2 exams)

70 hours classroom/simulations

210 hours clinical

Pre-requisites:

All first year semester I courses

Course Description:

This course is a continuation of Fundamentals of Nursing I and is designed to provide the basis for nursing competencies for clinical care. It teaches the student to practice safe basic nursing care in a variety of situations. It prepares the student to integrate interpersonal skills with clinical skills while providing nursing care.

Broad Objective:

At the end of this course, the student will be able to practice nursing skills learned.

Specific Course Objectives:

- Administer medication safely
- Record and transcribe medication orders
- Identify and provide appropriate nursing care for common complications of surgery
- Document the intake and output of patients
- Identify and provide appropriate nursing care for common disorders of elimination
- Provide safe administration of oxygen therapy in a variety of ways
- Prepare and assist in performing diagnostic and therapeutic procedures
- Provide appropriate nursing care for dying and death

Course Content:

Unit I | Administration of Drugs

1. LEGAL AND ETHICAL RESPONSIBILITIES FOR ADMINISTRATION OF DRUGS

2. SOURCES OF DRUG INFORMATION

3. FORMS OF DRUGS:

- Liquids
- Solids:
 - Powders
 - Tablets
- Capsules
- Injectable
- Topical

4. FACTORS INVOLVED IN THE ADMINISTRATION OF MEDICATIONS:

- Knowledge of the patient
- The ten rights
- Care of the drug

5. ANATOMY OF INJECTION SITES

6. DRUG ADMINISTRATION AND ROUTES (LAB COMPONENT):

- Drug dosage
- Calculation and conversion tables

7. ROUTES FOR ADMINISTERING DRUGS:

- Oral
- Rectal
- Vaginal
- Topical
- Intramuscular
- Intravenous

Semester II

- Subcutaneous
- Intradermal
- Inhalants - respiratory route—anesthetics and bronchodilators

8. TECHNIQUES FOR DRUG ADMINISTRATION:

- Dispensing drug
- Name of drug
- Route of administration
- Quantity and interval to take the drug
- Sterile technique of drawing up medication (lab component)

9. MEDICATION ORDERS:

- Abbreviations used In medication orders:
 - Stat
 - Standing order
 - Single order
 - Prn (whenever necessary)

10. RECORDING, ADMINISTERING AND TRANSCRIBING DRUG ORDERS:

- Preparing medication card or Cardex cards
- Charting of drug administration
- Educating patient about home use of prescribed medication

11. ADMINISTRATION OF PARENTERAL (IV) MEDICATION:

- Drug Administration:
 - Parenteral medication
 - Transdermal
 - Subcutaneous
 - Intramuscular

12. COMPLICATIONS OF DRUG ADMINISTRATION:

- Major nerve damage

- Blood vessel damage:
 - Paralysis
 - Abscess
 - Cellulitis
 - Embolism

13. CLASSIFICATION OF COMMONLY USED DRUGS IN LIBERIA:

- Anesthetic
- Analgesics
- Anti-allergens
- Anticonvulsants

14. ANTHELMINTICS:

- Anti-amebics
- Anti-bacterials
- Anti-leprosy
- Anti-fungals
- Anti-tuberculosis
- Anti-filarial
- Anti-schistosomal
- Anti-septics
- Blood products and substitutes
- Cardiovascular
- Anti-arrhythmics
- Anti-hypotensive drugs used in anaphylaxis
- Dermatologicals
- Diuretics

15. GASTROINTESTINAL:

- Antacids

Semester II

- Anti-emetics

Unit II | Caring for the Surgical Patient

1. OVERVIEW OF HISTORY OF SURGICAL NURSING

2. DEFINITION OF PREOPERATIVE NURSING CARE:

- Classification of surgery
- Members of the surgical team

3. OPERATIONAL CARE FOR PRE/POST OPERATION

4. PREOPERATIVE SURGICAL PHASE:

- Nursing history
- Review of emotional health
- Physical examination
- Risk factors
- Diagnostic screening
- Nursing diagnosis

5. PREOPERATIVE TEACHING:

- Ventilatory function
- Physical functional capacity
- Sense of well-being
- Length of hospital stay

6. PHYSICAL PREPARATION:

- Fluid and electrolyte balance
- Wound infection
- Bladder incontinence
- Rest and comfort

7. OPERATIVE PHASE/DAY OF SURGERY:

- Medical records
- Vital signs
- Hygiene
- Hair and cosmetics
- Removal of prostheses
- Bowel and bladder
- Transport to the operating room

8. INTRAOPERATIVE NURSING:

- Anesthesia in surgery
- Types of anesthesia:
 - General
 - Muscle relaxants
 - Local

9. NURSING CARE DURING SURGERY:

- Providing emotional care
- Assisting with patient positioning
- Maintaining surgical asepsis
- Preventing patient heat loss
- Monitoring for malignant hyperthermia
- Assisting with surgical wound closure
- Transporting patient to post anesthesia or intensive care unit

10. POST-OPERATIVE NURSING CARE:

- In the intensive care unit:
 - Admission
 - Immediate baseline assessment
 - Assessment and intervention for immediate post-operative complications

Semester II

- Discharge from ICU
- Transfer to clinical unit

11. POST-OPERATIVE CARE:

- In the Intensive Care Unit:
 - Admission
 - Immediate baseline assessment
 - Assessment and intervention for immediate post-operative complications
 - Discharge from ICU
 - Transfer to clinical unit

12. ON CLINICAL UNIT:

- Assessment
- Establishment of goals
- Restoring homeostasis and preventing complications
- Maintaining and promoting adequate airway and respiratory function
- Plus all other nursing care

Unit III | Elimination

1. CHARACTERISTICS OF NORMAL STOOL:

- Characteristics of normal defecation

2. COMMON DISORDERS OF THE GASTROINTESTINAL (G.I.) TRACT:

- Intestinal gas
- Constipation
- Diarrhea
- Fecal impaction
- Anal incontinence

3. COMMON NURSE MEASURES FOR DEALING WITH PROBLEMS OF INTESTINAL ELIMINATION AFTER SURGERY:

- Gastric lavage
- Cathartics
- Suppository
- Enemas (type)
- Rectal tubes and suppository
- Manual removal of feces
- Adequate fluid intake
- High-fiber diet

4. URINARY TRACT PRINCIPLES OF ELIMINATION

5. CHARACTERISTICS OF NORMAL URINARY ELIMINATION

6. FACTORS CAUSING DISORDERS OF URINARY TRACT:

- Psychological or emotional
- Disease
- Medications

7. COMMON DISORDERS OF URINARY TRACT:

- Retention
- Incontinence
- Urgency
- Urinary tract infection

8. COMMON NURSING MEASURES FOR DEALING WITH PROBLEMS OF URINARY ELIMINATION:

- Positioning patient
- Fluid intake and output
- Catheterization of male and female
- Indwelling catheter

Semester II

- Bladder stimulation
- Bladder irrigation

9. COLLECTING OF SPECIMEN:

- Proper labeling of containers
- Proper handling of specimen

10. TYPES OF SPECIMEN:

- Urine
- Stool
- Spinal fluid
- Discharge from body
- Sputum
- Blood

Unit IV | Diagnostic and Therapeutic Procedures

1. ASSISTING AND PREPARING THE PATIENT:

- Lumbar puncture
- Thoracentesis
- Paracentesis
- Gastric and duodenal suctioning, etc.
- Vaginal exam
- Rectal exam

2. PREPARATION FOR LAB AND X-RAY

Unit V | Oxygen Administration

- Safety measures in administering oxygen—note dangers of oxygen use
- Methods of oxygen administration:
 - Nasal cannula

- Nasal catheter
- Trans-tracheal oxygen
- Oxygen mask
- Home oxygen
- Steam therapy:
 - Cold
 - Hot

Unit VI | Death and Dying

1. SIGNS OF APPROACHING DEATH

2. NURSING CARE OF THE DYING PATIENT

3. DEALING WITH FEELINGS ON DEATH DURING STAGES OF GRIEVING

4. SUPPORT OF THE DYING PATIENT'S FAMILY:

- Counseling
- Emotional/psychological support

5. MEETING THE NEEDS OF THE DYING PATIENT:

- Physiological needs:
 - Personal hygiene
 - Pain control
 - Nutritional and fluid needs
 - Movement
 - Elimination
 - Respiratory care
 - Psychological need
 - Spiritual need

6. NURSING CARE OF THE BODY AFTER DEATH (POST-MORTEM CARE)

Semester II

7. RESPONSIBILITIES IN REPORTING DEATH:

- Nurses
- Doctor
- Forms
- Charting

Clinical Course Description

The clinical component of this course is intended to continue providing opportunities for the student to gain competency in providing care for patients. The student will progress to more complex skills than was experienced in Fundamentals of Nursing I.

Clinical Objectives:

On completion of this clinical course, the learners will be able to:

- Admit operative patients
- Build a working relationship with individuals and families with regard to self-care
- Demonstrate safe practice while providing care to patients
- Provide for physical safety of patients
- Protect patient from emotional harm
- Seek assistance from instructor or other health care member for care that is beyond the learner's level of knowledge or experience
- Plan and carry out health teaching for surgical patients
- Provide care and emotional support to dying patients and their grieving relatives
- Demonstrate cultural sensitivity when caring for the dead and grieving relatives

Clinical Placements:

- General wards (mainly surgical)
- Laboratory

Practical Skills:

- Administering ordered drugs
- Documenting drug administration activities
- Admitting pre and post-operative patients
- Measuring and recording intake and output
- Interpreting vital sign readings
- Physical assessment of operative patients
- Developing and implementing care plans for surgical patients
- Moving, lifting and positioning surgical patients

Semester II

- Helping patients maintain hygiene
- Serving meals
- Feeding clients
- Inserting naso-gastric tube
- Administering oxygen
- Suctioning surgical patients
- Bandaging
- Dressing surgical wounds
- Splinting
- Making patient airway patent
- Performing cardiac massage
- Passing tube for flatus
- Transferring and discharging procedures
- Preparing and transferring a body to the morgue

Competencies

Knowledge	Attitudes/Behaviors	Skills
Recognizes use of essential components of nursing process appropriate to individual, family and group health care needs across the life span	Values use of scientific inquiry, as demonstrated in the nursing process, as an essential tool for provision of nursing care	Provides priority-based nursing care to individuals, families and groups through independent and collaborative application of the nursing process Demonstrates cognitive, affective and psychomotor skills when delivering patient care
Understands the unique role of midwives in the provision of patient care Understands ethical principles, values, concepts and decision-making that apply to midwifery and patient care	Shows initiative for new ideas and actions to improve patient care Values the application of ethical principles in daily practice	Advocates for the role of the nurse as a member of the profession and health care team Incorporates Code of Ethics into daily practice Identifies and responds to ethical concerns, issues and dilemmas that affect nursing practice Recognizes ethical problems and enlists system resources in resolving ethical issues in daily practice

Knowledge	Attitudes/Behaviors	Skills
Identifies leadership skills essential to the practice of midwifery Understands the roles and skills of the health care team.	Recognizes the role of the nurse as leader Recognizes the limits of one's own role and competence and, where necessary, consults with other health professionals with the appropriate competencies Values new ideas and interventions to improve patient care	Applies leadership responsibilities to meet patient needs Treats others with respect, trust, and dignity

Teaching/Learning Strategies:

- Classroom presentations
- Group exercises
- Educational games
- Demonstration
- Coaching
- Homework and laboratory assignments

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Required Resources:

- IP materials, med administration materials (syringes, needles, etc.), vital signs equipment and materials

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Semester II

References:

Evans-smith, Pamela. *Taylor's Clinical Nursing Skills: A Nursing Process Approach*. Lippincott, Williams and Wilking, Philadelphia. 2005.

Potter, Patricia, and Perry, Anne Griffin. *Basic Nursing: Essentials of Practice*, Mosby, 2003.

Taylor, Carol. *Fundamentals of Nursing: the ART and Science of Nursing Care*. Lippincott, Williams, and Wilkins. Philadelphia. 2001.

Course Title: Nutrition

Credits:

2

Placement:

First year, second semester

Duration:

16 weeks (14 instructional and 2 for exams)

28 classroom hours

Course Description:

This course is designed to provide student with a broad understanding of nutrition so that they can teach mothers, families and school children the basics of proper healthful nutrition and to prioritize essential nutrition actions (ENA) through implementation of the key nutrition behaviors that address the health and nutritional needs, especially of children and women in vulnerable communities. Psycho-social factors influencing eating habits are discussed as well as their importance in the promotion of health, and in the provision of a therapeutic diet in health and illness. The role of nutrition in the prevention of non-communicable diseases (NCDs) and malnutrition will be emphasized. Also, the course is designed to enable students to be able to prevent and treat malnutrition well when it occurs.

Broad Objectives:

- Help the student acquire the appropriate knowledge, skills and attitudes concerning nutrition, and nutritional principles and their application to the nutritional needs in Liberia
- Develop in each student a thorough understanding of the values, functions and sources of the three basic food groups, and to differentiate between a balanced and unbalanced diet
- Understand the factors that influence eating habits to promote a healthy lifestyle and prevention of diseases
- Teach the student the special dietary considerations during critical periods of one's life with emphasis on ENA
- Teach the student the nutritional disorders/diseases that can result from a deficient diet and educate families on the different nutrients and their importance to health for various age groups

Specific Objectives:

By the end of this course, the student will be able to:

- Identify food sources of macronutrients and major types of micronutrients

Semester II

- Describe the physiological functions of each nutrient
- Identify factors affecting bioavailability of nutrients
- Recognize the normal nutrient requirements under different physiological conditions
- Identify the vulnerable periods for age groups and sex where there is higher need for specific nutrients
- Identify factors affecting nutritional requirement
- Identify the common methods used for nutritional assessment
- Differentiate indexes and indicators used for assessing community nutritional status
- Discuss nutritional deficiencies
- Classify nutritional deficiency states
- Identify common causes of nutritional deficiencies in Liberia
- Describe the various nutrition interventions with emphasis on ENA
- Describe the essential nutrition actions approach and the 6 contact points
- List key breastfeeding messages
- Explain the duration of EBF and the age for introduction of complementary food
- Define the five main breast problems
- Name causes of breast problems
- Diagnose main breast problems
- Counsel the mother about prevention of breast problems
- Treat simple breastfeeding problems
- Define weaning
- Name the conditions of an appropriate weaning
- List key complementary feeding messages
- Describe the baby-friendly hospital initiative criteria
- Discuss the Code of Marketing of BMS
- Explain interventions to break intergenerational cycle of malnutrition
- Identify target group for Iron, folic acid and Vitamin A supplementation

- Name the advantages related to the prevention of iron/folic acid deficiency among mother and newborns
- Describe role and function of iodine
- Identify problems associated with Iodine deficiency
- List options for prevention of Vitamin A, and iron and iodine deficiency
- Describe the nutrition of a sick child
- List key behaviors of sick child feeding
- List Infant feeding options in the context of HIV/AIDS
- Explain the importance of women nutrition in the context of HIV/AIDS
- Define nutritional surveillance
- Identify and list key indicators for assessing a community's nutritional status
- Identify indicators used for IYCF
- Identify indicators for micronutrient deficiencies
- Prepare and present health talks on nutrition
- Prepare and demonstrate to the class the selection and preparation of local foods

Course Content:

Semester II

1. INTRODUCTION:

- Overview
- Role of nutrition in health maintenance
- Role of health personnel in nutrition education and promotion
- Culture and food practices
- Liberian feeding practice

2. TYPES OF NUTRIENTS AND THEIR FOOD SOURCES:

- The six nutrient groups:
 - Organic:
 - Protein
 - Carbohydrate
 - Lipid
 - Vitamins (Vitamin A)
 - Inorganic:
 - Minerals (iron, iodine, zinc)
 - Water
 - Salts
- Major food sources:
 - Breast milk
 - Foods of animal origin (animal milks, white and brown meats, egg)
 - Foods of plant origin (fruits vegetables, cereals, legumes)
- Common food sources of nutrients in the community
- Factors affecting bioavailability of nutrients
- Function of food

3. NUTRITIONAL REQUIREMENTS:

- Recommended daily allowances:
 - Calorie and protein requirements
 - Caloric composition of diet

- Variation of nutritional requirement at different ages and physiological conditions:
 - Growth, development in infancy and childhood
 - Nutritional requirements:
 - Infancy
 - Childhood
 - Adolescence
 - Pregnancy
 - Lactation
- Factors affecting nutritional requirement:
 - Illness
 - Growth
 - Environmental temperature
 - Body composition
 - Physical activity
 - Age and sex

Unit II | Metabolism

1. ANABOLISM, CATABOLISM, BASAL METABOLIC RATE

2. METABOLISM IN RELATION TO GENDER, ACTIVITY AND SPECIAL CONDITIONS

3. ABSORPTION, DIGESTION, AND VITAL FUNCTIONS OF MACRONUTRIENTS AND MICRONUTRIENTS

4. NUTRITIONAL ASSESSMENT:

- Definitions of nutritional assessment:
 - Assessment vs. measurement:
 - Assessment methods - growth monitoring – use of scale for weight, Shakir strip, height and Road-to-Health cards
- Anthropometric
- Biochemical/biophysical
- Clinical

Semester II

- Dietary
- Indirect methods of assessment
- Advantages and disadvantages of the four methods
- Quality control measures
- Calibration of equipment
- Taking appropriate measurements
- Validity and reliability issues index
- Indicators
- Cut off points for admissions to TFC and SFC centers for adults and children

5. NUTRITIONAL DEFICIENCY STATES:

- Define malnutrition (under-nutrition/over-nutrition)
- Causes of malnutrition - the conceptual framework
- Non-food causes of nutritional disorders:
 - Cultural
 - Agricultural
 - Transportation
- Classification and signs and symptoms:
 - Under-weight, stunting, marasmus (wasting), kwashiorkor, marasmic – kwash, obesity
 - Micronutrient deficiencies (IDD, VAD, IDA, Vit DD [Rickets, beriberi, scurvy, pellagra], anemia – from deficiencies in iron, B-12 or folic acid)
 - Dietary management of illnesses/conditions:
 - Diabetes mellitus
 - Peptic ulcer
 - Hypertension
 - Obesity
 - Others
 - Interventions to maintain nutritional status in illnesses/conditions

6. NUTRITIONAL INTERVENTIONS 1:

- Nutritional interventions options

7. NUTRITIONAL EDUCATION AND COUNSELING

8. USING ADULT EDUCATION PRINCIPLES - METHODOLOGY AND CONTENT

9. INTERPERSONAL COMMUNICATION

10. ROLE OF THE HEALTH WORKER

11. HOW TO WORK WITH THE COMMUNITY TO IDENTIFY A COMMUNITY'S NUTRITIONAL PROBLEMS:

- Economic approaches
- Dietary modification/increased production
- Dietary diversification
- ENA
- Advantages and disadvantages of the above interventions in different settings (urban vs. rural)

12. NUTRITIONAL INTERVENTION 2: ENA & BREASTFEEDING:

- Essential Nutrition Actions (ENA):
 - The seven actions:
 - Optimal breastfeeding
 - Optimal complementary feeding
 - Feeding of the sick child
 - Women's nutrition
 - Prevention of IDA
 - Prevention of Vit A deficiency
 - Prevention of IDD
 - The six critical contact points:
 - Pregnancy
 - Delivery
 - Postnatal
 - Immunization
 - Growth monitoring and promotion

Semester II

- Sick child visit
- Optimal breastfeeding behaviors:
 - Benefits of breastfeeding
 - The key messages on optimal breastfeeding practices for Liberia
 - Current recommendations about breastfeeding:
 - Infants should be exclusively breastfed the first 6 months of life
 - Infants should not receive artificial or animal milk
 - Infants should continue breastfeeding until 2 years of age or more, in addition to increasing quantities of complementary food and liquids administered with a cup
- Exclusive breastfeeding:
 - Definition: infant receives only breast milk, without any other food, until 6 months of age (EBF 8–12 times in 24 hours, no use of bottle, no use of teats)
 - Techniques for a successful exclusive breastfeeding: ensure appropriate positioning and attachment
 - Advantages of exclusive breastfeeding:
 - Nutritional
 - Economic
 - Protection of the infant against different diseases
 - Natural
 - Ready and available
- Breastfeeding recommendations:
 - Placed baby at the breast immediately after delivery
 - Advantages of early initiation:
 - Favors uterine contractions and reduces the risk of hemorrhage
 - Favors milk production
 - Colostrum contains antibodies (first immunization), plus proteins and vitamin A
 - Has a laxative effect
 - Helps to prevent jaundice
 - Mother should breastfeed her baby on demand, day and night, at least 10 times in 24 hours

- Evaluation of the technique of... breastfeeding and newborn:
 - Positions for a breastfeeding mother:
 - “American football” position: useful for mother with C-section, for and when the woman has painful nipples.
- Appropriate positioning:
 - Mother comfortable
 - Baby close to the mother
- Signs of an appropriate attachment:
 - Nose of the baby touches the breast
 - Baby’s mouth widely open
 - More areola visible in the upper part
 - Lips turned outwards
- Signs of an efficient breastfeed:
 - Rhythmic, slow and regular suckles, 2 suckles:1 swallowing
 - Softer breast after breastfeeding
- Signs that show the baby is getting enough milk:
 - Baby breastfeeds 6–8 times a day
 - Frequent and yellow stools
 - Weight increase
- Breast problems:
 - Sore nipples:
 - Definition: Painful nipples while breastfeeding
 - Causes: poor attachment, poor positioning, candidiasis, contact eczema
 - Signs: Pain in the nipple while breastfeeding
 - Management: appropriate positioning and attachment, do not wash the nipple with soap, do not wash the nipple more than once a day, wait for the baby to let the nipple go, do not apply cream or other product on the nipple. In case of candidiasis Nystatin or gentian violet on the baby’s mouth and mother’s nipple
 - Engorgement:
 - Definition: Accumulation of blood, milk and other fluids in the breast
 - Causes: inappropriate milk removal, infrequent breastfeeds, inhibition of the ejection reflex
 - Signs: hard, heavy and distended breasts

Semester II

- Management: massage the breasts and express milk (with hand or pump), continue frequent and efficient breastfeeds, cold compresses after each feed, analgesics as needed
- Cracked nipples:
 - Definition: cracks in the nipple skin
 - Causes: poor positioning, engorgement, irritation due to soap or lotions, candidiasis, contact eczema
 - Signs: damaged nipple skin, pain, no fever
 - Management: appropriate positioning and attachment, moist local heat, stimulate ejection reflex pre-suction, apply breast milk to the nipples, and let them dry. Treat candidiasis, avoid bra with synthetic lining
- Mastitis- inflammation of the breast:
 - Apply compresses for 3 to 5 minutes before each breastfeed
 - Do not stop breastfeeding
 - Use antibiotic according to prescription, and analgesics for the pain
 - Breastfeed frequently
 - In case of fever
 - Use compresses
- Weaning:
 - Definition of weaning: Progressive diversification of feeding through gradual introduction of solid foods
 - Conditions of an appropriate weaning
 - Start at 6 months of age, when breast milk is insufficient to satisfy the increasing growth needs of the infant
 - Progressive introduction of complementary foods
 - Diverse foods: vegetables, fruits, eggs, meat, fish
 - Continue breastfeeding
 - Avoid sudden cessation of breast milk

13. NUTRITIONAL INTERVENTION 3: COMPLEMENTARY FEEDING:

- Optimal complementary feeding behaviors - Key messages for Liberia
- Feeding the infant 6–12 months old:
 - Flour: rice, cassava, vegetable juice, soup, meat, fish, egg
 - Menu: quantity, quality, feeding technique

14. NUTRITIONAL INTERVENTION 4 PROMOTION OF BREASTFEEDING AT INSTITUTIONAL LEVEL:

- Promotion of optimal breastfeeding behaviors at facility level:
 - The 10 criteria for the baby friendly hospital initiative
 - International Code of Marketing of Breast Milk Substitutes (BMS)
 - The role of health workers in application of the code

15. NUTRITIONAL INTERVENTION 5 WOMEN'S NUTRITION:

- Women's nutrition- key messages
- Nutritional needs of pregnant and lactating women
- Recommended intake of nutrients during pregnancy and lactation
- Need for extra nutrients related to physiologic changes in mother and fetus
- The effect of malnutrition in pregnancy and lactation

16. NUTRITIONAL INTERVENTION 6 MICRONUTRIENTS:

- Prevention of Vitamin A deficiency
- Supplementation (universal vs. disease-targeted)
- Consumption of Vitamin A-rich foods
- Breastfeeding food fortification
- Strategies for Vitamin A supplementation:
 - As part of the treatment for some illnesses
 - Systematically, from the 6 months of age on and every 6 months
- Vitamin A:
 - Favors appropriate growth and development
 - Strengthens the resistance of the organism to illnesses and infections
 - Contributes to the reduction of infant mortality:
 - The importance and need of supplementation with vitamin A at the time of immunizing the child
 - Prevention of Iron deficiency anemia:
 - Immediate

Semester II

- Counsel the pregnant woman to consume 1 tab/day of iron/folic acid during 6 months
- Long term
- Encourage pregnant women to consume food rich in iron: meat, vegetables....
- The woman should continue with iron/folic acid tab if did not complete six months during pregnancy
- Advantages of use of iron/folic acid:
 - For the mother:
 - Increased working capability
 - Increase of the mental capability
 - Greater resistance to infections
 - Prevention of anemia during pregnancy
 - Less risk of hemorrhage during pregnancy
 - For the newborn:
 - Increase hemoglobin
 - Better health
- Iron and folate supplementation and treatment of anemia in women and children
- Supplementation, fortification, food diversification
- Malaria prevention and control
- De worming children and pregnant women
- Prevention of IDD:
 - Universal supplementation of Iodized salt
 - Role of iodine in the child and adult:
 - Growth
 - Intelligence
 - Goiter
 - Problems due to iodine deficiency:
 - Fetal way
 - Cretinism: neurological, myoedematosus
 - Hypothyroidism
 - Goiter

17. NUTRITIONAL INTERVENTION 7 SICK CHILD FEEDING:

- Feeding the sick child during and after illness: Key messages

18. NUTRITIONAL INTERVENTION 8: IYCF AND WOMEN'S NUTRITION IN THE CONTEXT OF HIV/AIDS:

- IYCF and women's Nutrition In the context of HIV/AIDS:
 - Infant feeding options for the HIV positive mother(The AFASS concept):
 - Exclusive breastfeeding for 6 months with early cessation if AFASS
 - Wet nursing by HIV-negative women
 - Expressed heat-treated breast milk
 - Exclusive replacement feeding
 - Commercial infant formula
 - Home modified animal milk:
 - Advantages and disadvantages of each Infant feeding option
 - IF counseling skills:
 - HIV-negative /unknown status
 - HIV-positive mothers
 - Women's nutrition and HIV/AIDS

19. NUTRITIONAL INTERVENTION 9: PREVENTION AND MANAGEMENT OF MALNUTRITION:

- Prevention and management of severe malnutrition:
 - Early warning signs
 - Need assessment
 - TFC, SFC, GRD
- Evaluating emergency intervention programs

20. FOOD PRESERVATION/FOOD PROCESSING/FOOD COSTS:

- Food spoilage
- Food storage methods
- Food-borne diseases
- Sources of food and its cost

Semester II

21. MONITORING AND EVALUATION:

- Nutritional surveillance
- Early warning signs
- GMP
- Food security
- Nutritional emergencies
- Timely initiation of breastfeeding
- EBF
- Timely CFR
- LAM Rate
- Total goiter rate
- Prevalence of anemia
- Prevalence of Bitot's spots/night blindness
- Death rate
- Discharge rate
- Transfer rate
- Recovery rate

Competencies

Competencies

Knowledge	Attitudes/Behavior	Skills
Understand the values, functions and sources of nutrients/food	Appreciates the provider's role in assisting the patient/family's to understand the values, function and sources of nutrients/food	Demonstrated the preparation of cereal use as weaning food made from at least 2 traditional Liberian foods
Name the six ENA contact points	Recognizes the role of the nurse as leader in encouraging ENA Willing to be flexible to meet patient nutritional needs. Accepts the role and responsibility for providing health education to patients and families	Carryout health education activities at the contact points Assists patients and families in accessing and interpreting health information and identifying healthy nutritional practices

Knowledge	Attitudes/Behavior	Skills
Understands the principles managing patients with nutritional disorders	Values different means of caring for patients and families with nutritional disorders Values the patient's and family's right to know the reason for chosen interventions	Assist the patient and families to obtain needed micronutrients and supplies through the health system Apply appropriate interventions in caring for patients with nutritional disorders

Teaching/Learning Strategies:

- Problem-based learning
- Lectures and demonstrations
- Role play
- Group assignment/discussion
- Case studies
- Simulation and demonstration of skills
- Practical experiences
- Seminar presentations

Audiovisual Aids, Teaching and Learning Equipment/Supplies:

- Overhead projector
- LCD projector and PC
- Blackboard
- Flip chart stand
- Transparencies
- Chalk
- Flip charts
- Handouts
- Flip chart stand
- Breast models
- Dolls

Semester II

- Infant feeding counseling tool
- Markers

Course Expectations:

The student is expected to:

- Regularly attend class and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and take examinations on due dates

Assessment Criteria—Standard Grading System: (modified for English)

Quizzes	15%
Assignments	15% (written and oral)
Attendance	5%
Mid-term exam	25%
Final exam	40%

Instructional Materials:

Textbooks and References:

National strategy for IYC feeding

ENA Technical Module

Lecture note on nutrition

Modules on Micronutrients

National food comparison tables

ENA Technical Module

Garrow J.S., James W.P.T. *Human Nutrition and dietetics.*

Latham, M.C., *Human nutrition in tropical Africa.*

Dudek S.G. *Nutrition Handbook for Nursing Practice.*

Waterlow JC. *Protein-Energy Malnutrition, National food tables.*

Rosiland Gibson. *Principles of nutritional assessment.*

Nutrition essentials book

Manual for treatment of severe malnutrition

Infant feeding counseling tool

Nutrition for Developing Countries, Felicity King, Maurice King, David Morley, Leslie Burgess, Ann Burgess.

Perspectives in Nutrition, 3rd Ed., Gordon M. Wardlaw and Paul M. Insel.

Food, Nutrition and Diet Therapy, 11th Ed., L. K. Mahum and Sylvia Escott-Stump.

Essentials of Nutrition and Diet Therapy, 7th Ed., Sue R. Williams.

Basic Package of Health Services, MOHSW, Liberia, 2008.

National Nutrition Policy, MOHSW, October 2008.

Food and Nutrition Handbook, WFP.

Course Title: Tropical and Communicable Diseases

Credits:

3

Placement:

First year, Semester 2

Duration:

16 weeks (14 instructional and 2 exams)

42 classroom hours

Pre-requisites:

All first and second semester courses

Course Description:

This course focuses on the components of common tropical and communicable diseases, including the parasitic diseases that are harmful to humans, and parasitology. Emphasis is placed on their signs and symptoms, mode of transmission, prevention and management of tropical and communicable diseases, including the parasitic diseases that are harmful to humans. Malaria, HIV/AIDS and TB will be emphasized in this course.

Broad Objectives:

- To assist the students in developing necessary knowledge and skills in parasitology and tropical diseases
- To enable the students to identify the different tropical and parasitic diseases and properly manage them, with special emphasis on malaria, HIV/AIDS and TB
- Initiate health promotion activities for the prevention of tropical diseases
- Collaborate with national programs implementing strategies to combat tropical diseases, especially those found in Liberia
- Understand the principles of prevention of selected tropical and communicable diseases, with emphasis on malaria, TB and HIV and AIDS
- Properly manage selected tropical and communicable diseases including malaria, TB, HIV/AIDS

Specific Objectives:

By the end of this course, the student will be able to:

- Define related communicable disease terminologies

- Explain the three major principles of communicable disease control
- List and explain five preventive measures in communicable disease control in Liberia
- Discuss the burden of malaria
- Define malaria
- Explain the life cycle of malaria
- List the types of malaria vectors in Liberia
- List the malaria parasite species in Liberia
- Discuss the population at risk of malaria
- Explain the epidemiology of malaria and related terminology
- Explain clinical assessment and diagnosis of uncomplicated malaria
- Explain clinical assessment and diagnosis of complicated malaria
- List the preventive methods for malaria
- List the steps for proper malaria case management
- Explain why self-diagnosis and clinical diagnosis may lead to treatment failure or recurring infection
- Describe the types of diagnostic tests available for malaria and their advantages and disadvantages
- Identify other causes of fever
- List the signs and symptoms of uncomplicated and severe malaria
- Describe the treatment for uncomplicated and complicated malaria
- Outline the process of malaria medication adherence counseling
- Review the process of pharmacovigilance
- List the three elements of malaria prevention and control according to the WHO malaria in pregnancy (MIP) strategy
- List the elements of counseling women about intermittent preventive treatment during pregnancy (IPTp) and other means of malaria prevention
- Describe the use of sulfadoxine-pyrimethamine (SP) for IPTp, including dosage, timing and contraindications
- Identify ways to prevent mosquito bites and breeding

Semester II

- Describe the difference between untreated, treated and long-lasting nets
- Explain the rationale and organization of IRS programs
- List other mosquito control measures
- Describe the burden of malaria disease
- Define malaria and explain how it is transmitted
- List the effects of malaria on pregnant women and their unborn babies
- Describe the effects of malaria on pregnant women with HIV/AIDS
- Describe the epidemiology of TB & HIV in Liberia, regionally, and globally.
- Discuss collaborative TB/HIV activities
- Explain the roles of NLTCP and NACP in relation to collaborative TB/HIV activities
- Describe the transmission and natural progression of TB
- Describe extra-pulmonary manifestations of TB
- Describe the hierarchy of infection control
- Define HIV and AIDS
- Discuss modes of HIV transmission
- Describe how the HIV virus interacts with the human immune system
- Explain progression of HIV infection
- Explain the diagnosis of HIV and TB in adults and children
- Define active and passive case finding in both diseases
- Explain the importance of providing HIV testing to TB patients (DCT)
- Describe the different approaches of HIV counseling and testing in Liberia
- Differentiate between VCT and PICT
- Explain the importance of providing HIV testing to TB patients (DCT)
- Identify the basic communication and counseling skills used in PICT
- Demonstrate effective communication skills in PICT
- Clinically stage adults and children living with HIV

- Describe diagnosis and management of common and serious opportunistic infections
- Treat TB using the appropriate regimen for the appropriate category of TB patient
- Identify the regimens and different actions of TB drugs
- Describe the Directly Observed Treatment Short Course (DOTS) Strategy
- Describe strategies for adherence to treatment
- Describe when to initiate cotrimoxazole prophylaxis for malaria prevention (IPT)
- Describe INH preventive therapy (IPT)
- Discuss how antiretrovirals work
- Review the current first line regimens
- Determine when to initiate ART and what regimens to use
- Review the regimens used in patients with TB and HIV
- Discuss reasons for substitutions
- Identify the most common side effects of anti-TB and ARV drugs
- Describe characteristics and consequences of side effects
- Describe the interaction between anti-TB and ARV drugs
- Explain how to manage the side effects of anti-TB and ARV drugs
- Describe IRIS and its management
- Identify risk factors for TB and HIV and methods to prevent transmission for both diseases
- Identify activities to reduce the disease burden among PLWHA
- Discuss best practices for antenatal, intrapartum and postpartum care of the HIV-positive mother to prevent/reduce mother-to-child transmission (PMTCT)
- Describe the goal of collaborative TB/HIV activities
- Identify objectives of collaborative TB/HIV activities based on the TB/HIV national policy
- Describe the recommended TB/HIV collaborative activities within the first objective
- Describe health care workers' duties and responsibilities regarding TB/HIV collaboration

Semester II

- Describe record keeping and reporting used in the TB & HIV control programs
- Explain the roles of NLTCP and NACP in relation to collaborative TB/HIV activities
- Define related communicable disease terminologies
- Explain the three major principles of communicable disease control
- List and explain five preventive measures in communicable disease control in Liberia
- List at least seven protozoal diseases
- Identify the causative agents of the following diseases using microscope in the laboratory:
 - Malaria
 - Black water fever
 - Trypanosomiasis (if available)
 - Amebiasis
 - Giardiasis
 - Leishmaniasis
 - Trichanomiasis
 - Schistosomiasis
 - Tapeworm
 - Elephantiasis
 - Onchocerciasis
- Identify the following parasites through use of the microscope in the laboratory:
 - Ascaris
 - Strongyloides
 - Pinworm
 - Hookworm
 - Trichuris
 - Guinea worm
- Differentiate nematodes from trematodes
- List at least three nematodes which cause parasitic disease

- Name the five most common types of worms
- List at least two filarial diseases
- List at least 20 bacterial diseases
- Discuss the clinical presentation, epidemiology, reservoir, mode of transmission, incubation period and communicable period of the 20 bacterial diseases you listed
- Discuss the treatment and control (prevention) methods for the following bacterial and viral diseases:
 - Typhoid
 - Bacillary dysentery
 - Bacterial food poisoning
 - Salmonella
 - Cholera
 - Botulism
 - Brucellosis
 - Pneumococcal pneumonia
 - Pertussis
 - Strep and staph infections
 - Meningitis
 - Tetanus
 - Diphtheria
 - Plague
 - Gangrene
 - Cancroid
 - Gonorrhea
- List and discuss the treatment and control methods of the three spirochetal diseases:
 - Syphilis
 - Yaws
 - Tropical ulcer

Semester II

- List and discuss the causative agents, clinical features, social significance, treatment and control of the three mycobacterial diseases:
 - TB
 - Leprosy
 - Buruli ulcer
- List and discuss the treatment and control methods of the following viral diseases:
 - Lassa fever
 - Yellow fever
 - Measles
 - Chicken pox
 - Herpes zoster
 - Influenza A and B
 - Rubella
 - Polio
 - Rabies
 - Mumps
 - Hepatitis A
 - Hepatitis B
 - Dengue
 - Lymphogranuloma inguinale
 - Human immunodeficiency virus (HIV)
- List and discuss the treatment and control methods of these three ectoparasitic infestations:
 - Scabies
 - Jiggers
 - Lice
- List and discuss the treatment and control methods of at least three fungal diseases

Course Content:

1. INTRODUCTION AND OVERVIEW OF THE COURSE AND OBJECTIVES**2. BASIC DEFINITIONS OF TERMS AND PROCEDURES:**

- Communicable disease
- Preventive measures
- Methods of reporting communicable diseases
- Modes of transmission of communicable diseases
- Principles of vaccines and vaccinations
- Classification of parasitic, fungal, viral and bacterial communicable diseases
- Neglected tropical diseases (e.g., Buruli ulcer, etc.)
- Immunity
- Outbreak
- Investigation
- Surveillance
- Interpreting data
- Screening
- Natural history of diseases
- Disease control and prevention

3. EPIDEMICS IN NATIONAL, REGIONAL AND GLOBAL COMMUNITIES:

- National Integrated disease surveillance programs
- Managing health information
- Conducting an epidemiological study and compiling the report

Unit II | Communicable Diseases (Prevention and intervention)**1. TRANSMISSION PROCESS:**

- Reportable Diseases:
 - Reporting process
 - Information required

Semester II

2. CONTROL OF SPREAD OF COMMUNICABLE DISEASES CLASSES OF OTHER COMMON COMMUNICABLE DISEASES:

- Airborne diseases (TB)
- Water-borne diseases
- Soil-borne diseases
- Helminths
- Protozoal infections
- Sexually transmitted infections (HIV/AIDS)

3. THE MALARIA SITUATION IN LIBERIA:

- Overview of malaria in Liberia:
 - The prevalence and transmission of malaria in Liberia
 - The current status of progress on achieving malaria indicators in Liberia
 - International support for prevention and case management of malaria
 - Roll Back Malaria (RBM) Strategy
- National anti-malarial policy:
 - The key malaria interventions, targets and elements
 - Community perception and uptake of malaria programs

4. EPIDEMIOLOGY OF MALARIA:

- Define malaria
- Transmission of malaria:
 - Causative agent:
 - Factors affecting transmission
- The disease burden of malaria:
 - The effects of malaria on pregnant women and their unborn babies
 - The effects of malaria on pregnant women with HIV/AIDS
- Vector control measures

- Types of vector control measures:
 - The primary interventions:
 - Insecticide-treated nets (ITNs) including long-lasting insecticide-treated nets (ITNs)
 - Indoor residual spraying (IRS)
 - Other interventions:
 - Larviciding
 - Fogging
 - Repellants
 - Environmental management

5. MALARIA CASE MANAGEMENT:

- Steps for proper malaria case management:
 - Malaria diagnosis:
 - Three types:
 - Self-diagnosis
 - Clinical diagnosis
- Signs and symptoms of malaria:
 - Assessing child with fever
 - Assessing adult with fever
 - Assessing pregnant woman with fever
- Clinical assessment and diagnosis of uncomplicated malaria
- Clinical assessment and diagnosis of complicated/severe malaria
- Parasitological diagnosis:
 - Laboratory - microscope:
 - Advantages and disadvantages
 - Rapid Diagnostic Tests (RDT):
 - Advantages and disadvantage
 - When, why and how to use

6. TYPES OF MALARIA:

- Uncomplicated - Definition

Semester II

- Complicated/severe - definition
 - Treatment with recommended medicines:
 - National malaria treatment policy
 - Presumptive treatment
 - Drugs:
 - Artemisinin-based Combination Therapy (ACT)
 - Quinine
 - Supportive care:
 - Manage fever: analgesics, tepid sponging
 - Diagnose and treat anemia
 - Provide fluids
 - Treatment for uncomplicated malaria
 - Treatment for complicated malaria
 - Management of the complications of severe malaria
 - Assessment and treatment of danger signs
 - Management of adverse drug reactions
 - Pharmacovigilance
 - Counseling for adherence
 - The process of malaria medication adherence counseling
 - Basic messages
 - Community case management:
 - Definition
 - Tasks of Community Health Volunteers
 - Role of professional health worker
 - Training and supervision of CHVs
- 7. CONTROL OF MALARIA IN PREGNANCY:**
- National strategy
 - Consequences of malaria during pregnancy

- WHO malaria in pregnancy (MIP) strategy:
 - Three elements of malaria prevention and control in pregnancy:
 - Treatment of malaria during pregnancy
 - The elements of counseling women
 - The use of sulfadoxine-pyrimethamine (SP) for IPTp, including dosage, timing and contraindications:
 - The first IPTp-SP dose should be administered as early as possible during the 2nd trimester of gestation (after quickening)
 - Each SP dose should be given at least 1 month apart
 - The last dose of IPTp with SP can be administered up to the time of delivery, without safety concerns
 - IPTp with SP is safe up until delivery
 - IPTp should ideally be administered as directly observed therapy (DOT)
 - SP can be given either on an empty stomach or with food
 - Folic acid at a daily dose equal or above 5 mg should not be given together with SP as this counteracts its efficacy as an antimalarial
 - SP should not be administered to women receiving cotrimoxazole prophylaxis
 - Dispelling myths
 - Three elements of malaria prevention and control in pregnancy

8. MALARIA AND THE HEALTH SYSTEM:

- Pharmacovigilance
- Supervision and surveillance:
 - Essential elements of a surveillance system
- Data collection and reporting
- Malaria treatment forms

9. TB & HIV/AIDS:

- A global view of HIV infection
- Magnitude and distribution of HIV and AIDS in Liberia
- Global TB epidemiology
- Global TB incidence

Semester II

- Case detection rates
- Global TB control targets
- Multi-drug resistant TB
- Global burden of tuberculosis
- TB in Liberia
- Effects of HIV on incidence of TB
- Case definitions
- Site of disease:
 - Pulmonary/extrapulmonary
- Severity of disease
- Bacteriology:
 - Smear negative/smear positive
- History of previous TB
- Epidemiological definitions:
 - Prevalence
 - Incidence
 - Mortality
 - Case fatality
 - TB morbidity
 - Infected pool
 - Infectious pool
- Collaborative TB/HIV activities
- Goal and objectives
- Rationale
- Roles of NLTCP and NACP
- Roles of health workers
- Defining HIV and AIDS

- Ways of HIV transmission:
 - Unprotected sexual contact with an infected partner/s
 - Contact with HIV-infected blood/blood products:
 - Blood transfusion
 - Injection drug use (IDU) through needle-sharing
 - Needle stick accidents
 - Unsterilized needles
 - Mother-to-child transmission:
 - In utero
 - During labor and delivery
 - Through breastfeeding
- Natural history of HIV infection without treatment
- How does HIV make you sick?
- How does HIV cause AIDS?
- HIV and the immune system:
 - CD4 and viral load
 - T-cell
- Consequences of HIV infection
- HIV progression
- 3 main stages which include:
 - Acute infection (early immune depletion)
 - Clinical latency (intermediate immune depletion)
 - AIDS (severe immune depletion)
- HIV diagnostics:
 - Specific laboratory tests in HIV infection:
 - HIV diagnosis:
 - Rapid test or Elisa
 - DNA PCR test (for children under 18 months) (*if available*)

Semester II

- Treatment eligibility and outcome:
 - CD4 cell count
 - Viral load (if available)
- Rapid HIV antibody testing:
 - Rapid tests examples:
 - Capillus (1st test)
 - Determine (2nd test)
 - If discordant: repeat, if still discordant send specimens to regional lab for Elisa testing
 - HIV diagnostics in newborn
 - Dried blood spot (DBS):
 - How to collect DBS
 - HIV counseling and testing approaches used in Liberia:
 - Client-initiated HIV counseling and testing = voluntary counseling and testing (VCT)
 - Provider-initiated HIV testing and counseling (PICT)
 - Mandatory HIV screening (e.g., Court order, etc.)
 - HIV testing for medical research and surveillance
- Definitions:
 - Voluntary testing and counseling (VCT)
 - Provider-initiated testing and counseling (PICT):
 - PICT
 - Principles
 - PICT should follow the 3 “c”s:
 - Counseling
 - Consent
 - Confidentiality
 - Recommendations
 - Rationale
 - Benefits
 - Types

- Differences between VCT and PICT:
 - HIV testing in TB patients
 - Counseling procedures in PICT
 - Counseling skills for PICT
 - Communication skills for PICT
 - Pre-test and post-test:
 - Process
 - Information
 - Counseling
 - Providing test results
 - Recording test results
- Clinical staging in HIV:
 - Who staging for HIV infection and disease in adults and adolescents
 - Clinical stage 1:
 - Asymptomatic
 - Persistent generalized lymphadenopathy (PGL)
 - Clinical stage 2:
 - Weight loss, < 10 % of body weight
 - Recurrent respiratory tract infections (sinusitis, tonsillitis, otitis media, pharyngitis)
 - Herpes zoster
 - Angular cheilitis
 - Recurrent oral ulcerations
 - Papular pruritic eruptions
 - Seborrheic dermatitis
 - Fungal nail infections
 - Clinical stage 3:
 - Weight loss, > 10 % of body weight
 - Unexplained chronic diarrhea, > 1 month
 - Unexplained persistent fever (intermittent or constant), > 1 month
 - Oral candidiasis (thrush)

Semester II

- Acute necrotizing ulcerative gingivitis
- Oral hairy leukoplakia
- Pulmonary tuberculosis
- Severe bacterial infections (e.g., pneumonia, meningitis, pyomyositis)
- Unexplained anemia, neutropenia, and/or
- Clinical stage 4:
 - HIV wasting syndrome
- Pneumocystis jiroveci pneumonia (carinii)
- Recurrent severe bacterial pneumonia
- Herpes simplex virus (HSV) infection, mucocutaneous > 1 month, or visceral any duration
- Candidiasis of the esophagus, trachea, bronchi or lungs
- Extrapulmonary tuberculosis
- Kaposi's sarcoma
- Cytomegalovirus (CMV) disease of an organ other than liver, spleen or lymph nodes
- Toxoplasmosis of the central nervous system
- HIV encephalopathy
- Extra pulmonary cryptococcosis
- Thrombocytopenia
- Atypical mycobacteriosis (NTM), disseminated
- Progressive multifocal leukoencephalopathy (PML)
- Cryptosporidiosis with diarrhea, > 1 month
- Chronic isosporiasis
- Any disseminated endemic mycosis (e.g., histoplasmosis, coccidioidomycosis)
- Recurrent septicemia (including non-typhoid salmonella)
- Lymphoma
- Invasive cervical cancer
- Atypical disseminated leishmaniasis
- Symptomatic HIV associated nephropathy or cardiomyopathy

- Opportunistic infections
- Common and serious respiratory conditions in HIV (excluding TB):
 - Upper respiratory tract infections
 - Pneumonia
 - Tuberculosis
 - Kaposi sarcoma
 - Lymphocytic interstitial pneumonitis (children)
 - Symptoms:
 - Diagnosis
 - Treatment
- PCP:
 - Clinical manifestations
 - Treatment
- Gastrointestinal illnesses:
 - Oral manifestations clinical manifestations and treatment of:
 - Oral candidiasis (thrush) leading to esophageal candidiasis
 - Oral hairy leukoplakia
 - Acute necrotizing ulcerative stomatitis, gingivitis, or periodontitis
 - Mucocutaneous herpes
 - Chelitis
 - Kaposi's sarcoma
 - Aphthous ulcers
 - Diarrhea - clinical manifestations, diagnosis and treatment of:
 - Non-typhoid salmonella
 - Cryptosporidiosis
 - Microsporidiosis
 - Isosporosis
 - Atypical mycobacteria
 - Cytomegalovirus

Semester II

- Dermatological manifestations - dermatologic descriptions, clinical manifestations and treatment of:
 - Herpes simplex
 - Varicella zoster
 - Disseminated varicella
 - Papular pruritic eruption
 - Seborrhoeic dermatitis
 - Kaposi's sarcoma
 - Cutaneous cryptococcosis
- Neurological manifestations- clinical manifestations, diagnosis and treatment of:
 - HIV meningitis
 - Bell's palsy
 - Guillain-Barré syndrome
 - Peripheral neuropathy
 - Myopathy/myositis
 - Peripheral neuropathy
 - HIV encephalitis
- Cervical cancer:
 - Assessment
 - Signs and symptoms
 - Treatment:
 - Pre-invasive stage
 - Invasive stage
- Care and treatment of HIV:
 - Components of HIV/AIDS care and support
 - Prophylaxis:
 - Cotrimoxazole:
 - Indications for use in HIV
 - When to give cotrimoxazole preventive therapy (CPT)
 - Cotrimoxazole prophylaxis: children

- Dosing of CTX in children
- Monitoring of CPT
- Contra-indications
- Alternatives to CPT
- Antiretroviral therapy (ART)
- Definition:
 - ARV and ART
- Goal and benefits of ART
- How to treat HIV
- Important information for prescribers
- Mode of action
- When to start ART:
 - Adults and adolescents: current guidelines in Liberia
 - Children: current Liberian guidelines
 - Pregnant women
- Before initiating therapy:
 - Confirm HIV results
 - Complete H&P
 - CD4 count
 - Treat any opportunistic infection
 - Assess “readiness” for treatment and adherence
- Reasons for deferral of ART
- Reasons for withholding ART
- Special considerations of ART in TB and HIV co-infected patients
- Antiretroviral agents:
 - Three main classes of ARV agents:
 - Nucleoside reverse transcriptase inhibitors- NRTIS(and NTRTIS)
 - Non-nucleoside reverse transcriptase inhibitors-NNRTIS
 - Protease inhibitors-PIS
 - Two additional drug classes:
 - Fusion inhibitors

Semester II

- Integrate inhibitors
- ARVS in Liberia:
 - NRTIS:
 - Zidovudine (AZT)
 - Stavudine (D4T)
 - Lamivudine (3TC)
 - Tenofovir (TDF)
 - Didanosine (DDL)
 - Abacavir (ABC)
 - NNRTIS:
 - Nevirapine (NVP)
 - Efavirenz (EFV)
 - PIS:
 - Lopinavir/ritonavir (LPV/R)
 - Atazanavir (ATV)
 - Nelfinavir (NFV)
- Adherence:
 - Description
 - The “rule” of thirds:
 - 1/3 take medication as prescribed
 - 1/3 are intermittently adherent
 - 1/3 take little or no medication
 - Determine adherence and predicting success
 - Improving adherence
 - Adherence in special populations
 - Adherence strategies:
 - Negotiate a treatment plan
 - Treat when patient is ready – thorough adherence counseling
 - Educate
 - Reminder devices
 - Social support
 - Others?
 - Communicate with patient in a non-judgmental manner

- Treat depression and/or substance abuse
- Use patient record as reminder

10. TUBERCULOSIS:

- Describe tuberculosis
- TB diagnostic approaches
- History and examination
- Differential diagnosis for TB suspects:
 - Bacterial pneumonia or atypical pneumonia
 - Pneumocystis carinii pneumonia (PCP)
 - Lung abscess or bronchiectasis
 - Asthma or chronic obstructive airway disease
 - Occupational lung disease
 - Lung cancer
 - Congestive cardiac failure
 - Kaposi sarcoma of the lung
- Laboratory examinations:
 - AFB microscopy for sputum and aspirates
 - Culture - sputum, aspirates for EPTB
 - Histological examination - biopsy tissue
- Screening of TB suspects:
 - Active case finding
 - AFB sputum smear microscopy
 - Techniques of collecting sputum for microscopy
 - False positive sputum smear microscopy result
 - False negative sputum smear microscopy result
- Chest x-ray (CXR)

Semester II

- Other diagnostic methods:
 - Tuberculin skin test:
 - Indicates mycobacterium infection not the presence of tuberculosis disease
 - Used in children
 - Erythrocyte sedimentation (ESR)
 - Non-specific and should not be used as a routine diagnostic tool for TB
- TB in children:
 - Natural progression
 - Signs suggestive of TB in children:
 - **Persistent pneumopathy** after two different, well-monitored antibiotic treatments
 - **Meningeal signs**, often in a sub-acute context, occasionally associated with a focal neurological deficit
 - Stiffness and **vertebral deformation**, sub-acute arthritis in general
 - One or more **adenopathies**, firm or soft, painless
 - Close contact of known case of sputum positive TB
 - Tools for TB diagnosis in children:
 - Clinic (symptoms consistent with TB+, clinical examination)
 - Sputum smear microscopy
 - Paraclinic examination. i.e., CXR
 - Tuberculin skin testing (PPD)
 - TB score of Keith Edwards
 - Others (quantiferon-TB gold test, PCR)
 - Recommended approach to diagnose TB in children:
 - Careful history (including history of TB contact and symptoms consistent with TB)
 - Clinical examination (including growth assessment)
 - TB score
 - Bacteriological confirmation whenever possible
 - Tuberculin skin testing (PPD)
 - Investigations relevant for suspected PTB and suspected EPTB, e.g., CXR, ultrasound
 - HIV testing (in high HIV prevalence areas)

- Laboratory testing:
 - **Expectoration:** difficult to obtain sputum from young children, around 10% are positive
 - **Gastric aspiration:** performed in young children who are unable or unwilling to expectorate sputum
 - Highest yield specimen:
 - ~ 50% yield in children with TB
 - Must be done for hospitalized patient
 - Sputum induction:
 - Safe and effective in children of all ages
 - Bacterial yields are as good as or better than for gastric aspirates
 - Tuberculin skin test
 - Paraclinical examination
 - TB score
- Care and treatment of tuberculosis:
 - History of TB treatment:
 - TB drug development milestones
 - 1944 | streptomycin
 - 1949 | p-aminosalicylic acid
 - 1952 | isoniazid
 - 1954 | pyrazinamide
 - 1955 | cycloserine
 - 1962 | ethambutol
 - 1963 | rifampicin
 - Aims of TB treatment:
 - To cure at least 85% of smear positive PTB cases
 - To prevent death in the very ill
 - To prevent lung damage
 - To avoid relapse
 - To prevent the development of resistant TB bacilli
 - To prevent others from becoming infected
 - To stop the spread of the TB epidemic, relieve health service

Semester II

- Treatment regimens:
 - Category I regimen for new patients
 - Category II regimen for re-treatment patients
 - Category III regimen for children with less severe cases
 - Category IV for chronic and MDR-TB cases
- Case definition:
 - New case
 - Relapse
 - Treatment after default/treatment after interruption (TAI)
 - Transfer in
 - Other
- Short course chemotherapy:
 - Drugs:
 - Isoniazid (H)
 - Rifampicin (R)
 - Pyrazinamide (Z)
 - Ethambutol (E)
 - Streptomycin (S)
- Treatment regimens:
 - Fixed-dose combinations
 - New cases
 - Retreatment cases
 - Special situations:
 - Pregnancy
 - Breastfeeding
 - Oral contraception
 - HIV and AIDS infection
 - Adjuvant steroid therapy
- Directly Observed Treatment Short Course (DOTS):
 - Description:
 - Health facility based DOTS
 - Community based DOTS

- Five key components:
 - Political commitment and increase and sustained financing
 - Case detection through quality assured microscopy
- Standardized treatment with supervision of the patient:
 - All health care workers should provide DOTS
 - DOTS should be observed in all phases of treatment
 - All patients should receive treatment adherence counseling
 - Patients lost to follow up should be traced, retrieved and attempts made for adherence
 - There can be flexibility in observing patients
- Uninterrupted supply of quality assured medications
- Monitoring and evaluation system and impact measurement
- DOTS in Liberia:
 - Patient education
 - Monitoring patient treatment response:
 - New sputum smear positive patients
 - New sputum smear negative pulmonary patients
 - Previously treated pulmonary sputum positive patients
- Drug interruption:
 - Less than 1 month
 - Less than 2 months
 - More than 2 months (defaulters)
- Treatment outcomes definitions:
 - Cure
 - Treatment completed
 - Failure
 - Died
 - Defaulter
 - Transfer out
- Drug resistance:
 - Two types of drug resistance:
 - Primary drug resistance

Semester II

- Acquired drug resistance
- Directly Observed Treatment Short Course (DOTS):
 - Description:
 - Health facility-based DOTS
 - Community-based DOTS
- Five key components:
 - Political commitment and increase and sustained financing
 - Case detection through quality assured microscopy
 - Standardized treatment with supervision of the patient:
 - All health care workers should provide DOTS
 - DOTS should be observed in all phases of treatment
 - All patients should receive treatment adherence counseling
 - Patients lost to follow up should be traced, retrieved and attempts made for adherence
 - There can be flexibility in observing patients
 - Uninterrupted supply of quality assured medications
 - Monitoring and evaluation system and impact measurement
- DOTS in Liberia
- TB preventive treatment:
 - BCG vaccine
 - Scale-up PMTCT
 - Chemoprophylaxis:
 - INH preventive therapy (IPT)
 - Other treatment:
 - Nutritional support
 - HIV care and treatment
- Side effects of anti-TB and ARV drugs, drug interactions, and iris:
 - Introduction
 - Side effects
 - Description
 - Types:
 - Minor
 - Major (potentially dangerous)

- Consequences of side effects
- Conditions for increased risk of severe side effects
- Side effects of anti-TB drugs:
 - Reason
 - Adverse reaction
 - Signs and symptoms
- Side effects of ARVs:
 - Drug
 - Adverse reaction
 - Signs and symptoms
- Side effects of anti-TB drugs and ARVs:
 - How to assess/identify
 - How to monitor
 - How to manage
 - Common side effects:
 - Nausea
 - Diarrhea
 - Rash
 - Fatigue
 - CNS effects
 - Severe side effects:
 - Hepatotoxicity
 - Stevens Johnson syndrome
 - Mitochondrial toxicity-hyperlactatemia
 - Others:
 - Zidovudine-associated anemia
 - Side effects of cotrimoxazole
 - Metabolic effects of protease inhibitors
 - Anti-TB and ARV drugs interaction and overlapping
- Immune reconstitution inflammatory syndrome:
 - Description
 - Risk factor

Semester II

- Clinical presentation of IRIS
- Diagnosis
- Management principles of IRIS
- Prevention of IRIS
- TB IRIS:
 - Description
 - Management of TB IRIS
- Decreasing the burden of tuberculosis in people living with HIV and AIDS:
 - Activities to reduce TB burden among PLWHA:
 - Establish intensified TB case-finding
 - Introduce isoniazide (INH) preventive therapy
 - Ensure TB infection control in health care settings and congregate settings
 - Provide information about TB and treatment
- Decreasing the burden of HIV in tuberculosis patients:
 - Activities to reduce HIV burden among TB patients:
 - Provide HIV counseling and testing
 - Introduce HIV prevention methods
 - Introduce cotrimoxazole preventive therapy (CPT)
 - Ensure care and support
 - Provide ARV therapy
- Preventing mother-to-child transmission of HIV:
 - Description
 - Who four prong approach to PMTCT:
 - Primary prevention of HIV
 - Prevention of unintended pregnancy
 - Prevention of mother-to-child transmission
 - Linkages to support and care
- Timing of mother-to-child transmission of HIV:
 - During pregnancy - 5–10%
 - During labor and delivery - 10–20%
 - During breastfeeding - 5–10%

- Possible adverse pregnancy outcomes with HIV infection:
 - Spontaneous abortion
 - Stillbirth
 - Perinatal mortality
 - Newborn mortality
 - Intrauterine growth restriction
 - Low birth weight
 - Preterm delivery
- Risk factors for MTCT
- Viral:
 - Viral load (the higher the viral load, the greater the risk of HIV transmission)
 - Viral resistance
- Maternal:
 - Maternal immunological status
 - Maternal nutritional status
 - Maternal clinical status (including co-infection with an STI)
 - Behavioral factors
 - Antiretroviral treatment
- Obstetrical:
 - Prolonged rupture of membrane (longer than 4 hours)
 - Mode of delivery
 - Intrapartum hemorrhage
 - Obstetrical procedures
 - Invasive fetal monitoring
- Fetal:
 - Prematurity
 - Genetic
 - Multiple pregnancy
- Infant:
 - Breastfeeding
 - Gastrointestinal tract factors
 - Immature immune system

Semester II

- PMTCT activities:
 - Counseling:
 - Educate/counsel regarding HIV and pregnancy
 - Counseling before pregnancy is important
 - Counseling HIV-positive pregnant women
- Provide ANC care
- ANC allows interaction between the health facility and sexually active women
- Provides opportunities to discuss the interventions for reducing the risk of MTCT
- Antenatal interventions to reduce MTCT:
 - HIV testing and counseling services
 - Behavior change communication:
 - Sexual activity
 - Injection drug use
 - Alcohol use and smoking
 - Prevention of new infections in pregnancy
 - Identification and treatment of STIs (genital ulcers and abnormal vaginal discharge)
 - Prevention and treatment of anemia (balanced diet and nutritional supplementation)
 - Avoiding invasive testing procedures in pregnancy
 - Antiretroviral prophylaxis for HIV positive mother
 - ARVs should be provided as needed to the mother for her health as well as for the health of the baby
 - Physical examination to detect any signs of HIV-related illness
 - Iron and folate
 - Multivitamin supplementation
 - Tetanus toxoid immunization
 - Intermittent preventive treatment (IPT) with sulfadoxine-pyrimethamine (SP) for malaria
- Intrapartum activities
- Use of universal IP precautions:
 - Application of good infection prevention practices during pelvic examinations and delivery
 - Avoiding unnecessary artificial rupture of membranes

- Avoiding prolonged labor and prolonged rupture of membranes
- Avoid unnecessary trauma during delivery:
 - Unnecessary episiotomy
 - Fetal scalp electrode monitoring
 - Forceps delivery
 - Vacuum extraction
- Minimize risk of PPH (to protect mother's health and decrease provider exposure to blood):
 - Active management of 3rd stage:
 - Administer oxytocin immediately after delivery
 - Controlled cord traction
 - Uterine massage:
 - Repair any genital tract lacerations
 - Carefully remove all products of conception
- Provide newborn care:
 - Wash newborn after birth, especially face
 - Avoid hypothermia
 - Cut cord under cover of a lightly wrapped gauze swab, to prevent blood spurting
 - Give antiretroviral agents, if available
 - Watch for anemia
 - Follow up infant for infection prevention
 - Handle all babies, regardless of the mother's HIV status, with gloves until maternal blood and secretions are washed off
 - All babies, irrespective of HIV status, should be kept warm post-delivery
 - Do not suction the newborn with a nasogastric (NG) tube unless there has been meconium-stained liquid; where suctioning is required:
 - Use a mechanical suction unit (at a pressure below 100mm hg) or bulb suction, if possible, rather than the mouth operated suction; do not use the bulb syringe for another baby
 - Attach the baby to the mother's breast only if the mother has made a prior decision to breastfeed
 - If the mother has decided not to breastfeed, place the baby on the mother's body for skin-to-skin contact; provision should be for the mother to receive infant formula.

Semester II

- Vitamin K should be administered as per national guidelines
- BCG should be administered according to the national/who immunization guideline
- Antibiotic or 1% silver nitrate eye ointment should be administered as prophylaxis against ophthalmia neonatorum according to the national/who immunization guideline
- Administer ARV according to protocol for eligible women and newborn
- Infant feeding options for the HIV-infected mother
- Exclusive breastfeeding up to 6 months
- Exclusive bottle feeding considering that formula is acceptable, feasible, affordable, sustainable and safe (AFASS)
- Provide FP counseling and services:
 - Effectiveness
 - Safety/side effects
 - Effect on HIV transmission or progression
 - Effect on STI transmission or acquisition
 - Ease of use
 - Non-contraceptive benefits
 - Potential interactions with other medications

11. FOR EACH DISEASE LISTED THE FOLLOWING WILL BE COVERED:

- Infectious agents (and life cycle if parasitic)
- Reservoir
- Mode of transmission
- Epidemiology
- Incubation/communicability period
- Carriers
- Patterns of susceptibility and resistance
- Methods of control and prevention
- Treatment measures

12. PROTOZOAL DISEASES:

- Malaria

- Black water fever
- Trypanosomiasis
- Leishmaniasis
- Amebiasis
- Giardiasis
- Balantidiasis (associated with raising pigs)
- Trichomoniasis

13. NEMATODES:

- Definition
- Description of nematodes:
 - Ascaris
 - Hookworm
 - Guinea worm
 - Strongyloides
 - Trichuris
 - Pinworm
 - Illnesses

14. CESTODES:

- Taenia solium
- Taenia saginata

15. TREMATODES – SCHISTOSOMIASIS:

- S. hematobium
- S. mansoni

16. FILARIA:

- Elephantiasis
- Onchocerciasis

Semester II

17. BACTERIAL DISEASES:

- Typhoid
- Bacillary dysentery/shigella
- Salmonella
- Cholera
- Bacterial food poisoning
- Botulism
- Brucellosis
- Gangrene
- Pneumococcal pneumonia
- Pertussis
- Strep and staph infection
- Meningitis
- Diphtheria
- Tetanus
- Plague
- Chancroid
- Gonorrhea

18. MYCOBACTERIAL DISEASES:

- TB
- Leprosy
- Buruli ulcer

19. SPIROCHETAL DISEASES:

- Syphilis
- Yaws
- Tropical ulcer

20. VIRAL DISEASES:

- Lassa fever
- Yellow fever
- Measles
- Chicken pox
- Herpes zoster
- Influenza A and B
- Common cold
- Rubella
- Polio
- Rabies
- Mumps
- Hepatitis A
- Hepatitis B
- Dengue
- Lymphogranuloma inguinale
- Human immunodeficiency virus (HIV)

21. FUNGAL DISEASES:

- Tinea (ringworm)
- Histoplasmosis
- Candida

22. INSECT-RELATED DISEASES:

- Scabies
- Jiggers
- Lice

Semester II

Competencies

Knowledge	Attitudes/Behavior	Skills
<p>Identifies the roles and skills of the health care team</p> <p>Identify the common tropical and parasitic diseases with special emphasis on Malaria, HIV/AIDS and TB</p> <p>Understand the principles of prevention of selected tropical and communicable diseases, with emphasis on Malaria, TB and HIV and AIDS</p>	<p>Recognizes the centrality of a multidisciplinary team approach to patient care</p> <p>Values the perspectives and expertise of each member of the health care team in prevention and management of tropical and communicable diseases</p>	<p>Demonstrates ability to effectively participate in multidisciplinary teams</p> <p>manage selected tropical and communicable diseases including, malaria, TB, HIV&AIDS</p> <p>Models effective communication and promotes cooperative behaviors in prevention and management of tropical and communicable diseases</p> <p>Shows tolerance for different viewpoints</p>
<p>Understands role and responsibilities as advocate in assisting patient in seeking and obtaining care for prevention and management of tropical and communicable diseases</p>	<p>Values role and responsibilities as patient advocates</p> <p>Values partnerships in providing high quality patient care</p> <p>Values effective communication and information sharing across disciplines and throughout transitions in care</p> <p>Appreciates role and responsibilities in using education and referral to assist the patient and family in prevention and management of tropical and communicable diseases</p>	<p>Serves as a patient advocate</p> <p>Assists patients and families in dealing with tropical and communicable disease Uses education and referral to assist the patient and family received for tropical and communicable diseases</p>

Teaching/Learning Strategies:

- Lecture
- Discussion
- Group assignments
- Laboratory

Learning Setting:

- Classroom
- Laboratory
- Clinical area

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15% (written and oral)
Attendance	5%
Mid-term exam	25%

Text Book:

Basic Clinical Parasitology, Brown.

Heyman, D. L. (2008). *Control of communicable diseases manual*, 19th ed., Washington DC, American Public Health Association.

References in Library:

Eddleston, M., Davidson, R., Brent, A., & Wilkinson, R. (2008). *Oxford handbook of tropical medicine*, 3rd ed., Oxford, Oxford university press.

Fernando, R. L., Fernando, S. S. E., & Leong, A. S.-Y. (2001). *Tropical infectious diseases: Epidemiology, investigation, diagnosis & management*. London, Alden Press, Ltd.

Ministry of Health and Social Welfare. (2011). National therapeutic guidelines for Liberia and essential medicines.

2003. *The Merck manual of medical information*, 2nd ed. United States of America, Merck & Co., Inc.

References – slides with synopsis of infectious and tropical diseases

Course Title: Anatomy and Physiology II

Credits:

3

Placement:

Second semester of freshman year

Duration:

16 weeks (14 instructional and 2 exams)

42 classroom hours

42 lab hours

Pre-requisites:

English Communication Skills, Basic Math, Fundamentals of Nursing I, Anatomy and Physiology I, Integrated Basic Sciences, Primary Health Care I

Course Description:

In Anatomy and Physiology I, the student learned the body systems and the names, locations and functions of the organs within each system. In Anatomy and Physiology II, the names and locations of the organs will be briefly reviewed, but the normal physiology of each organ will be dealt with in greater depth. In addition, those illnesses or abnormalities that are more common for each organ will be discussed with the physiological changes that each illness causes.

Broad Objectives:

By the end of this course, the student will be able to:

- Discuss the normal physiological functions of each organ
- Understand the malfunctions of organs due to selected illnesses
- Relate symptoms and physical findings to specific organs on the basis of anatomic locations
- Develop a scientific basis upon which to better connect and understand clinical findings in a patient
- Use the nursing process in caring for patients with diseased organs
- Analyze and document data obtained in assessment of body systems

Specific Objectives:

By the end of this course, the student will be able to:

From Anatomy and Physiology I and review in this course:

- Name each organ of all 11 systems and state each system's major function

- State each organ's location and main function
- Name the structures and valves (in order) in the pulmonary circulatory pathway of the cardiovascular system
- Name the structures and valves (in order) in the systemic circulatory pathway of the cardiovascular system
- State how oxygen gets from the blood into the cells in the various organs of the body
- Discuss how carbon dioxide, formed in the cells, is transported and finally excreted from the body
- State how oxygen is carried from the lungs to the capillaries of the body
- Describe the differences in sodium and potassium concentrations in the intracellular and extracellular fluids
- For each digestive juice, name the organ making it and the digestive enzymes it contains
- Name five functions of the liver
- Name three functions of the kidneys
- Name each endocrine gland and all of the hormones which the student was taught that each secretes
- State where the brain's speech center is located
- State the functions of the cerebellum
- State the functions of the medulla oblongata
- Describe the differences in the function of afferent and efferent peripheral nerve fibers
- State why ova and sperm cells are haploid in chromosomes
- State two locations where smooth muscle cells are found
- State three differences in striated cardiac muscle and striated muscle in the limbs
- State how calcium is absorbed and regulated in the body
- State how skin regulates temperature during hot days and cool days

For each system, list the number of illnesses requested below and describe them:

- Cardiovascular – 6 illnesses

Semester II

- Respiratory – 8
- Gastrointestinal – 10
- Lymphatic – 2
- Urinary – 5
- Endocrine – 1 illness for each of 6 (of the 8) glands
- Nervous system – 4
- Reproductive – 3
- Muscular system – 2
- Skeletal system – 4
- Integumentary – 5

Course Content:

Note for instructors:

For illnesses and pathology, there is no need to explain the illness in great detail, especially the differential diagnosis and treatment, because Medical-Surgical Nursing I and II are coming. But do acquaint the student with what diseases occur in each system, what are the usual symptoms, and what changes each makes in the anatomy and physiologic function of the organ.

1. BRIEF REVIEW OF BODY SYSTEMS**2. BRIEF OVERALL REVIEW OF BODY SYSTEMS****3. CIRCULATORY SYSTEM:**

- Pulmonary circulation – pathway-RV-PV-PA-Lung capillaries-PV-LA-MV-LV
- Lung respiration:
 - Function of alveoli and lung capillaries
 - Exchange of O₂ and CO₂ in lungs
 - Function of Hgb in carrying and releasing O₂ and CO₂

4. SYSTEMIC CIRCULATORY PATHWAY – LV-AV-AORTA-SMALLER ARTERIES-BODY CAPILLARIES-VEINS-SVC & IVC-RA-TV-RV**5. BODY CELL RESPIRATION:**

- Dissociation of oxygen from Hgb in systemic capillaries
- Oxygenation of glucose in cell mitochondria:
 - Produces water and carbon dioxide
 - Stores energy by turning ADP to ATP

6. BLOOD:

- Major blood types – A, B, AB, O
- Transfusion reactions
- RH factors
- RH incompatibility and neonatal jaundice
- Normal red blood cells
- Abnormal RBCs – sickle cell anemia and thalassemia
- Platelets and clotting factors

Semester II

- Depletion of clotting mechanisms, such as in DIC and abruptio placentae
- White blood cells—types, functions, normal ranges:
 - Neutrophils
 - Lymphocytes
 - Monocytes
 - Eosinophils
 - Basophils

7. ANEMIAS:

- Iron deficiency anemia
- B-12 and folate deficiency
- Anemia from blood loss – as in hookworm (a type of Fe deficiency)
- Hemolytic anemias
- Sicklemlia (discussed previously, but review):
 - Recessive condition-patient must have 2 genes for Sicklemlia-ss (A represents the gene for normal RBCs & s the gene for Sicklemlia)
 - Both parents must at least be carriers (As) or have Sickle Cell Anemia (ss)
 - Carriers (As) do not have any symptoms unless at times with low oxygen (such as at very high altitudes) or extreme exercise
 - If 2 carriers marry, on the average 1 in 4 children will have Sicklemlia
 - Pathology
- Thalassemia discussed previously—review briefly

8. LEUKEMIA

9. PERICARDITIS:

- From rheumatic fever or scarlet fever
- Viral
- Tuberculosis
- From ruptured amebic liver abscess (rare)

10. MYOCARDITIS:

- Description
- Causes:
 - From rheumatic fever
 - Viral
- Fetal circulation—different from circulation after birth:
 - Obviously fetus cannot get oxygen from breathing air
 - Gets O₂ and gets rid of CO₂ through exchange with mother's circulation through the placenta
 - No need for blood to go through fetal lungs, therefore:
 - Blood from right atrium shunted to left atrium through foramen ovale
 - Blood from rt. ventricle goes through pulmonary artery but shunted to aorta through patent ductus arteriosus instead of going through lungs
 - Upon birth foramen ovale and ductus arteriosus close when baby starts to breathe and blood from right ventricle goes through pulmonary artery through lungs.

11. CONGENITAL CARDIAC DEFECTS:

- Ventricular septal defect
- Atrial septal defect (patent foramen ovale)
- Tetralogy of fallow
- Patent ductus arteriosis

12. CONDUCTION SYSTEM OF NORMAL HEART:

- Pacemaker in left atrium
- Sino-atrial node
- Bundle of His – right and left conduction pathways

13. ARRHYTHMIAS/CONDUCTION DEFECTS OF HEART:

- Paroxysmal atrial tachycardia
- Wolff-Parkinson-White
- Atrial fibrillation

Semester II

- Ectopic atrial contractions – a few are normal
- Ventricular ectopic beats:
 - Ventricular tachycardia – may lead to ventricular fibrillation
 - Ventricular fibrillation – stops all effective beating of heart – death in a few minutes

14. ATHEROSCLEROSIS:

- Coronary artery disease and myocardial infarcts
- Carotid stenosis and strokes
- Peripheral vascular disease

15. ANEURISMS:

- Cerebral
- Abdominal aortic aneurism

16. RESPIRATORY SYSTEM:

- Brief review of organs and function
- Normal respiration and how it is controlled and regulated
- Brainstem (medulla oblongata) controls rate
- Rate increases and decreases to regulate amount of CO₂ in blood to maintain correct pH (homeostasis) to avoid respiratory acidosis or alkalosis

17. ILLNESSES OF THE RESPIRATORY TRACT—SYMPTOMS AND CHANGES THEY CAUSE:

- Sinusitis
- Allergic rhinitis
- URIs
- Croup
- Asthma
- Cystic fibrosis
- Emphysema
- Pneumonia

- TB
- Pulmonary embolism
- Pneumothorax
- Lung cancer
- Lung metastases

18. LYMPHATIC SYSTEM AND BODY FLUID COMPARTMENTS:

- Description/review of the lymphatic system
- Body fluid compartments and fluid composition of each:
- Changes in fluid compartments in dehydration
- Illnesses of the lymphatic system:
 - Lymphomas
 - Lymphadenitis
 - Tonsillitis (tonsils are lymphatic organs)
 - Hypersplenism
 - Elephantiasis

19. DIGESTIVE SYSTEM:

- Brief review of organs and functions:
 - Mouth
 - Pharynx
 - Esophagus
 - Digestive juices and enzymes and specific functions of each

ORGAN	DIGESTIVE JUICE	ENZYME or SUBSTANCE	ACTION
Mouth	Saliva	Amylase	Starch to sugar
Stomach	Gastric juice	Hydrochloric acid Rennin Pepsin (protease) Lipase	Softens and breaks up food Digests milk protein Proteins to peptides Digests fats
Liver	Bile		Emulsifies fats (small particles of fat more easily absorbed)

Semester II

ORGAN	DIGESTIVE JUICE	ENZYME or SUBSTANCE	ACTION
Pancreas	Pancreatic juice	Trypsin (protease) Lipase Amylase	Proteins to peptides Digests fats Starches to sugars
Small intestine	Intestinal juice	Saccharidases Lipase Peptidase	Complex sugars to monosaccharides Digests fats Peptides to amino acids

20. FUNCTIONS OF THE LIVER – THE BODY’S CHEMICAL FACTORY:

- Function of gallbladder
- Functions of small intestine
- Functions of colon
- Gastrointestinal illnesses and pathological changes:
 - Gastroenteritis
 - Typhoid and perforated Peyer’s patches
 - Amebiasis
 - Bacillary dysentery
 - Gastroesophageal reflux
 - Esophageal carcinoma
 - Gastric hyperacidity
 - Gastritis
 - Gastric and duodenal ulcers
 - Helicobacter
 - Intestinal parasites
 - Gastric carcinoma
 - Celiac disease
 - Appendicitis
 - Carcinoma of the colon
 - Strangulated hernia
 - Diverticulitis

- Schistosomiasis (mansoni)
- Peritonitis
- Pancreatitis
- Pancreatic cancer
- Hepatitis
- Liver cancer
- Cirrhosis
- Fatty liver
- Amebic liver abscess
- Gallstones

21. URINARY SYSTEM:

- Brief review of each organ and anatomy and function

22. KIDNEYS:

- Diseases of the kidneys (and anatomic and physiologic changes caused by each):
 - Pyelonephritis
 - Hydronephrosis
 - Cysts
 - Renal carcinoma
 - Nephrosis
 - Nephritis
 - Stenosis of renal arteries
 - Renal calculi

23. URETERS—LOCATION AND FUNCTION

24. DISEASES OF THE URETERS:

- Ureteral calculi
- Stenosis

25. BLADDER—LOCATION AND FUNCTION

Semester II

26. DISEASES OF THE BLADDER:

- Cystitis
- Schistosomiasis (hematobium)
- Carcinoma
- Bladder calculi

27. URETHRA—LOCATION AND FUNCTION:

- Diseases of the urethra:
 - Strictures
 - Gonorrhea and chlamydia (STIs)

28. ENDOCRINE SYSTEM

29. BRIEF REVIEW OF ANATOMY

30. PITUITARY – THE “MASTER GLAND”:

- Pituitary hormones and their functions:
 - Anterior pituitary:
 - Growth hormone
 - TSH
 - ACTH
 - FSH
 - LH
 - Prolactin
 - Endorphans
 - Posterior pituitary:
 - Antidiuretic hormone (ADH) (vasopressin)
 - Oxytocin
 - Diseases of the pituitary:
 - Adenoma
 - Gigantism (acromegaly)
 - Diabetes insipidus

31. PINEAL GLAND – PRODUCES MELATONIN – HELPS TO CAUSE SLEEP

32. THYROID:

- Thyroid hormones and their function:
 - Thyroxin – T₄
 - Tri-iodothyronine – T₃
- Diseases:
 - Hypothyroidism
 - Hyperthyroidism (if very severe-causes “thyroid storm” or thyrotoxicosis)
 - Goiter (common goiter caused by iodine deficiency)
 - Carcinoma
 - Thyroiditis

33. PARATHYROID GLANDS:

- Hormone – parathormone – functions
- Diseases:
 - Hypercalcemia
 - Hypocalcemia

34. PANCREAS:

- Also **Exocrine** function--secretes digestive enzymes through pancreatic duct to small intestine—Pancreatic peptase, amylase and lipase
- **Endocrine** Hormones and functions:
 - Insulin made by beta cells in “Isles of Langerhans” in pancreas
 - Glucagon made in alpha cells
 - Somatostatin made in delta cells
- Diseases:
 - Diabetes mellitus – type I and II
 - Pancreatitis (discussed previously)
 - Pancreatic carcinoma (discussed previously)

Semester II

35. ADRENAL GLANDS:

- Hormones of the cortex and functions:
 - Glucocorticoids – cortisol (hydrocortisone)
 - Mineralocorticoids – aldosterone – prevents sodium loss
 - Androgen precursors
- Diseases of the cortex:
 - Cushing's
 - Addison's
 - Adrenal carcinoma

36. HORMONES OF THE ADRENAL MEDULLA AND FUNCTIONS:

- Epinephrine (adrenaline)
- Norepinephrine

37. OVARIES:

- Hormones and functions:
 - Estrogen
 - Progesterone
- Diseases:
 - Ovarian failure
 - Polycystic disease
 - Ovarian carcinoma

38. TESTICLES:

- Hormone and function – testosterone
- Diseases:
 - Insufficient production of testosterone
 - Carcinoma
 - Testicular torsion
 - Orchitis
 - Failure of spermatogenesis

- Hydrocele

39. NERVOUS SYSTEM:

- Brain—Brain and spinal cord form central nervous system:
 - Cerebrum
 - **2 Hemispheres**--each controls opposite side of body. Left usually dominant (especially if right-handed)
 - Hemispheres connected by the **Corpus Callosum**—permits right and left hemisphere to communicate with each other
 - **Four lobes**—location and functions of each:
 - Anterior lobe
 - Parietal lobe
 - Occipital or Posterior lobe
 - Temporal lobe
 - **Diencephalon**--thalamus and hypothalamus—central in brain—connects midbrain to cortex
- Brainstem:
 - Pons
 - Medulla oblongata
- Cerebellum:
 - Ventricles
 - Meninges:
 - Dura mater—outer layer
 - Arachnoid mater—center
 - Subarachnoid space and CSF
 - Pia mater—thin fine layer against the brain
- Blood-brain barrier--prevents many toxins and medicines in blood from reaching the brain
- Cranial Nerves – I through XII – Describe function of each
- Illnesses involving the brain:
 - Meningitis
 - Encephalitis
 - Dementia

Semester II

- Hydrocephalus
- Epilepsy
- Autism
- Psychoses
- Cerebral malaria
- Strokes
- Trauma
- Sleeping sickness
- Spinal cord—the second part of the central nervous system:
 - Functions
 - Illnesses:
 - Meningocele
 - Trauma
 - Tumors
 - Tabes dorsalis
 - Same infections as the brain
- Autonomic nervous system – functions and divisions:
 - Sympathetic
 - Parasympathetic – vagus nerve
- Cranial nerves – 10 in all – list functions of each and problems if damaged
- Peripheral nervous system:
 - Main nerves (list them, give function and problems if damaged):
 - Ulnar nerve
 - Medial nerve
 - Radial nerve
 - Thoracic nerves - T-1 through T-12
 - Lumbar nerves - L-1 – L-5
 - Sciatic nerve
 - Femoral nerve
 - Diseases other than direct injury:
 - Herpes zoster (shingles)

- Polio
- Peripheral neuritis

40. REPRODUCTIVE SYSTEM:

- Female:
 - Ovaries:
 - Functions
 - Menarche
 - Menstrual cycle
 - Menopause
 - Diseases discussed under hormonal system
 - Uterus:
 - Functions
 - Changes during pregnancy
 - Diseases:
 - Menorrhagia
 - Metrorrhagia
 - Endometritis and sepsis
 - Polyps and fibroids
 - Endometrial carcinoma
 - Fallopian tubes:
 - Functions
 - Diseases:
 - STDs
 - Scarring
 - Hydrosalpinx
 - Ectopic pregnancy
 - Cervix and vagina:
 - Functions:
 - Diseases and prevention:
 - Bacterial STDs
 - HIV transmission
 - Hepatitis B and C transmission

Semester II

- Papilloma viruses – warts
- Cervical carcinoma
- Male:
 - Testicles – hormone, functions and diseases previously discussed
 - Spermatic cord and vas deferens:
 - Functions
 - Disease – varicocele
 - Prostate:
 - Function
 - Diseases:
 - Prostatitis
 - Hyper-prostatism
 - Prostatic cancer
 - Penis and urethra:
 - Functions
 - Diseases and prevention:
 - STDs
 - HIV transmission
 - Hepatitis B and C transmission
 - Erectile dysfunction (ED)
 - Priapism

41. SKELETAL SYSTEM – THE BONES THAT GIVE THE BODY STRUCTURE AND SHAPE:

42. COMPOSITION OF BONE

43. TYPES OF BONES

44. FUNCTIONS OF BONE:

45. DISEASES:

- Osteopenia
- Osteoporosis
- Ricketts

- Osteomyelitis
- Fractures
- Osteosarcoma
- Osteoarthritis
- Rheumatoid arthritis

46. MUSCULAR SYSTEM:

- The 3 types of muscles and general function of each type

47. SKELETAL (STRIATED) – LIST THE MAIN MUSCLES AND THE SPECIFIC FUNCTION OF EACH, AT LEAST:

- Trapezius
- Sternocleidomastoid
- Deltoid
- Biceps
- Triceps
- Paraspinous
- Rectus abdominus
- Quadriceps
- Gluteus maximus
- Hamstrings
- Gastrocnemius

48. SKELETAL MUSCLE DISEASES:

- Injury – tear or laceration
- Pyomyositis
- Strain
- Ruptured tendon
- Muscular dystrophy

Semester II

49. CARDIAC MUSCLE:

- Function
- State differences-Cardiac and Skeletal (Note both striated):
 - Cardiac does not rest, except between beats
 - Cardiac is a Syncytial network (skeletal muscle cells have parallel alignment)
 - Many more mitochondria in cardiac than skeletal

50. DISEASES OF CARDIAC MUSCLE – SEE “HEART”

51. SMOOTH MUSCLE-LOCATIONS AND FUNCTIONS

52. INTEGUMENTARY SYSTEM:

- Brief review of anatomy of organs:
 - Skin layers:
 - Epidermis
 - Dermis
 - Subcutaneous tissue
 - Nails
 - Hair

53. FUNCTIONS OF SKIN

54. FUNCTIONS OF NAILS

55. FUNCTION OF HAIR

56. DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE:

- Injury – lacerations, abrasions, burns
- Cellulitis
- Urticaria
- Atopic dermatitis
- Leprosy
- Psoriasis

- Ecto-parasites:
 - Scabies
 - Lice
 - Fleas
 - Blood-sucking insects – mosquitoes, etc.
- Subcutaneous parasite – onchocerciasis
- Ringworm-fungal infections
- Viral rashes/exanthems:
 - Measles
 - Rubella
 - Chickenpox
- Aging:
 - Thinning skin
 - Age spots
 - Senile keratoses
- Sun damage – much more common in light skin:
 - Sunburn
 - Actinic keratoses (pre-cancerous)
- Albinism
- Warts
- Malignancies:
 - Basal cell carcinoma
 - Squamous cell carcinoma
 - Melanoma

57. DISEASES OF NAILS:

- Avulsion – trauma
- Fungal infections

Semester II

58. DISEASES OF HAIR:

- Fungal infections
- Head lice

59. COMPLETE REVIEW FOR FINAL EXAMINATION

A & P II Clinical Course Description

This clinical course provides the learner with further opportunities to enhance his/her basic assessment skills. It gives the learner an opportunity to carry out direct observation on simulators and models in the midwifery arts laboratory to develop relevant knowledge in knowing how the human body works. The practicum allows for collaboration and consultations with the instructor and members of the class.

Clinical Objectives:

- List the various body systems
- Explain how each body system functions
- Assess patients for body systems' disorders
- Manage patients with disorders of body systems
- Perform accurately, CPR skills on a patient

Clinical Placement:

- Clinical skills laboratory

Clinical Skills:

- Identifying normal body organs related to specific system
- Assessing patients for body system disorders Documenting findings from assessment
- Applying cardio-pulmonary resuscitation techniques
- Transporting injured patients

Resources/Materials:

- Anatomical models
- Lab coats
- Gloves
- Microscopes

Semester II

Competencies

Knowledge	Attitudes/Behaviors	Skills
Physical, biological, quantitative and computer sciences	Values liberal learning as a solid foundation for the development of the clinical judgment skills required for the practice of professional nursing and critical thinking	Integrates concepts from behavioral, biological, and natural sciences in order to understand self and others Interprets and uses quantitative data Uses the scientific process and scientific data as a basis for developing, implementing, and evaluating nursing interventions
Illness and disease management	Values a concern for the well-being of others (altruism)	Assesses and manages physical and psychological symptoms related to disease and treatment Demonstrates sensitivity to personal and cultural influences on the individual's reactions to the illness experience and end of life Maintains, restores and optimizes an individual's level of functioning Anticipates and manages complications of disease progression Anticipates, plans for, and manages physical, psychological, social, and spiritual needs of the patient and family/caregiver

Teaching/Learning Strategy:

- Lectures
- Discussions
- Pictures and charts
- Models
- Handouts

Course Expectations:

The student is expected to:

- Regularly attend class and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory

- Complete all assignments and take examinations on due dates

Practical/Clinical Assessment:

- Clinical logs
- Clinical practicum
- OSCE
- Case presentations

Assessment Criteria—Standard Grading System: (modified for English)

Quizzes	15%
Assignments	15% (written and oral)
Attendance	5%
Mid-term exam	25%
Final exam	40%

Instructional Materials:

Textbooks:

Human Anatomy and Physiology, 6th Ed., Elaine N. Marieb.

Human Physiology, 9th Ed., Stuart Ira Fox.

Course Title: Primary Health Care I (PHC I)

Credits:

2

Placement:

First semester of first year

Duration:

16 weeks (14 instructional and 2 for exams), 28 classroom hours

Course Description:

This course is designed to equip the student with the concepts of primary health care, especially as it relates to the rural setting in Liberia, and how the various disciplines relate to it and to each other. Also this course is design to increase awareness of students about basic principles of working with community for community-based/directed activities.

Broad Objectives:

By the end of this course, the student will be able to:

- Understand the concept of primary health care and its 3 levels, especially as it relates to the rural setting
- Understand the organization of the Liberian health services with regards to the role they play in primary health care
- Understand the role of other health workers in the primary health care system
- Be able to explain the component of primary health care for the delivery of health services
- Understand the MOHSW process for quality improvement

Specific Objectives:

By the end of this course, the student will be able to:

- Define health and PHC as stated/defined by WHO
- Describe the concept of Care (PHC)
- Explain the WHO declaration on “Health for All by the Year 2000”
- Describe the Bamako Initiative and its role in PHC
- Describe the MOHSW organizational chart and the role of PHC within the MOHSW
- Explain the PHC within the EPHS Framework

- Describe the MOHSW process for quality improvement
- Differentiate the roles/functions of PHC team members
- Explain cultural beliefs and practices as they relate to PHC

Course Content:

Semester II

1. INTRODUCTION:

- Description of course and overview of objectives
- WHO definition of health and PHC and its goal of “Health for All”
- The Alma Ata declaration
- PHC concept
- PHC and its components
- Bamako Initiative
- Millennium Development Goals

2. ORGANIZATION OF HEALTH SERVICES:

- The National Health Policy and Essential Package of Health Services
- The National Community Health Policy, Strategy and Road Map:
 - Training and supervising community-level workers/community health volunteers
- Preventive vs. curative
- Comparison of costs of preventive vs. curative
- Health workers/population ratio
- Concept of team approach to PHC
- Concept of Quality Improvement/Assurance (QI/A):
 - Definition of Quality
 - Perspective of Quality
 - Dimension of Quality
 - Principles of Quality
 - Standards-Based Management and Recognition (SBM-R)
 - MOHSW Quality Improvement Process:
 - Developing standards
 - Measuring Standards
 - Implementing Standards
 - Recognizing Standards

3. CULTURE AND HEALTH:

- Expectations of the community
- Cultural beliefs and practices
- Traditional medicine
- Incorporating complementary medicine into PHC

4. PRIMARY HEALTH WORKERS/AUXILIARIES:

- Definitions and classifications
- Functions of Primary Health Workers (PHW) and general Community Health Volunteers (gCHVs)
- Training and supervising the CHV
- Interaction with other health workers

5. COMPONENTS OF PHC FRAMEWORK FOR DELIVERY OF SERVICES:

- Preventive
- Health education
- Community-based/directed programs:
 - Integrated Community Case Management/community-directed IMNCI
 - MCH:
 - Under-fives
 - Integrated Community Case Management/community-directed IMNCI
 - Antenatal
 - Immunizations
 - Family planning:
 - Community based Family Planning
 - Healthy Timing and Spacing of Pregnancy
 - Nutrition
 - Environmental sanitation - water and sanitation
 - Essential drug supply
 - Mental health

Semester II

6. WORKING WITH COMMUNITY – COMMUNITY DIRECTED/LED PROGRAMS:

- What is a community
- Four elements of all community:
 - Shared means of communication
 - Shared leadership
 - Shared values
 - Shared culture (beliefs and practices)
- Causes of ill health in communities:
 - Individual
 - Community
 - National
 - International
- A framework for transformation to healthy communities:
 - Maslow’s Ladder of human needs
- Key Principles for working WITH communities:
 - Aim for transformation of communities - work WITH Communities and the work is done BY communities
 - Practice Praxis – a spiral of reflection and action-provide situations where the community can “Do-Look-reflect-plan”
 - Use dialogue – Listening and speaking by the community
 - Based on problem posing and problem solving by all
 - Mindful that no education is neutral – must liberate
- Role of health care providers at the community level:
 - Animator – person with dialogue education training and transformative leadership skills
 - Role of the Animator:
 - Provide organization and order
 - “State in an organized manner what the community have said in a disorganized or confused way”

- Animator- Help community members:
 - To open up/unveil their situations
 - Encourage group discussion
 - Ask open-ended questions
 - Paraphrase and summarized
 - Build on participants contribution
 - To learn from all – animator and participants
- Dialogue/education principles/essential factors needed for transforming communities
- **Respect** – animators’ actions show respect that is observed and felt by participants/learners.
- **Immediacy** – “How soon can I use this?”
- **Relevance** – communities will learn and do faster and more permanently that which is significant to them and to their present lives.
- **Safety** – People need to feel safe to challenged and hold the opposite views
- **Reason/Benefits** – community will learn, do faster and more permanently if they understand the reason why for actions and changes would benefit them.
- **Engagement** – People learn and do more when they are actively involved, doing what they are learning:
 - 20% of what we hear
 - 40% of what we see and hear
 - 80% of what we hear, see and DO
- **Inclusion** – Without inclusion of all, a community is fragmented and no progress is made. With inclusion, especially in leadership the community takes ownership and is moved to collaborate.
- Process of working to transform communities:
 - Survey – quantitative and qualitative information gathering
 - Analysis of survey material
 - Preparation of problem posing materials:
 - Codes
 - Description

7. PRESENTATION AND DISCUSSION OF PROBLEMS:

- Steps:
 - Present a problem (discussion starter):
 - Using prepared audiovisual materials (the CHEST Kit/Journey of Hope Kit)
 - Description of Problem: What did you see or hear?
 - First Analysis: Why do you think it happened?
 - Real Life: Have anyone seen or heard this problem in real life
 - Second Analysis: Why did this problem happened in real life
 - Action Planning: What can we do to solve the problem

Clinical Title: Primary Health Care (Clinical)

Clinical Description:

The practicum provides an opportunity for learners to carry out client assessments in a variety of community-based settings so as to develop relevant and appropriate interventions to promote health and prevent diseases amongst individual, families and communities. The practicum allows for collaboration, consultation and forging of partnerships with various stakeholders, referral and continuity of care.

Clinical Objectives:

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

- Understand the concepts of primary health care
- Understand the organization of the Liberian health services with regards to the role they play in primary health care
- Recognize the role of other health workers in the primary health care system

Clinical Placement Settings:

- Health centers
- Community
- Schools

Clinical Skills:

- Community health assessment
- Documentation and reporting
- Family health assessment
- Community mobilization
- Community project planning and implementation

Semester II

Competencies

Knowledge	Attitudes/Behavior	Skills
Understands system theory in the planning, organizing and delivery of patient care. Understands types of nursing practice and delivery systems Understands the role and responsibilities of the health care team members in fiscal and resource management to achieve quality outcomes	Appreciates the complexity of the nursing practice environment and the effect on individual and group practice Appreciates the impact of practice setting decisions on the organizational system Acknowledges the tension that may exist between a goal driven model vs. a resource driven nursing care delivery model Values the contributions of each member of the health care team and the organizational system in evaluating the effectiveness of resources	Contributes to the plan of care for a patient or groups of patients considering both the environment and resources Identifies system resources effectively allocates them appropriately at the care delivery level Collaborates with colleagues and leadership to focus and prioritize resources so that the needs of individuals are served Evaluates outcomes of nursing care and uses data to promote change and to efficiently achieve desired outcomes

References:

Primary Health Care Materials - WHO.

Global Learning Partners - Materials from Learning to Listen Learning to Teach Course-based on Malcolm Knowles & Jane Vella Principles.

Training for Transformation, A Handbook for Community Workers, A. Hope, S. Timmell and C. Hodzi, Mambo Press, Gweru, Zimbabwe, 1984. (1–3).

Communicating About Health, A Guide for Facilitators, K. Tompkins.

Teaching/Learning Strategies:

- Lecture
- Discussion
- Role play
- Group assignment

Instructional Materials:

- Textbooks and references

Course Expectations:

The student is expected to:

- Regularly attend class and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and take examinations on due dates

Course Evaluation:

Assessment Criteria – Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Semester II | Course Outline

Health Assessment

Pharmacology and Drug Calculations

Medical Surgical Nursing I

Obstetric Maternity Nursing I

Primary Health Care II (Community Health & Epidemiography)

Course Title: Health Assessment

Credits:

3

Placement:

First semester of year 2 (third semester)

Duration:

16 weeks (14 instructional and 2 exams)

42 hours classroom

42 hours laboratory

Course Description:

Health assessment provides the students with knowledge of a holistic assessment, including physical assessment skills, clinical examination techniques and patient teaching guidelines. This course provides the nursing student an introduction to the skills of history taking, physical assessment techniques, patient teaching, and documentation. The student will acquire needed skills to conduct a comprehensive health assessment including the physical, psychological, social, functional, and environmental aspects of health. Emphasis is placed on the utilization of assessment findings for clinical decision-making in nursing.

General Objective:

By the end of this course, the student will be able to:

- Conduct a comprehensive health history and physical assessment (head-to-toe assessment) of an adult, pregnant woman and pediatric client with the view of screening to detect abnormalities, taking into consideration physical, psychosocial, cultural, and spiritual dimensions and explain the significance of abnormal findings
- Explain the importance of data and documentation in a comprehensive health assessment
- Analyze and interpret data gained from comprehensive health history for clinical decision-making
- Utilize appropriate safety measures during physical assessment of client to minimize risk

Course Objectives:

Upon completion of this course, the student will be able to successfully:

- Obtain health history from a patient using therapeutic interviewing techniques, taking into consideration psychosocial, cultural, spiritual dimensions
- Explain the rationale for health history questions

Semester III

- Conduct a complete physical assessment of a patient across the life span using appropriate technologies and explain the significance of abnormal findings
- Discuss gender/cultural/ethnic/racial variations found during the interview and physical assessment
- Accurately document data gathered from assessment
- Communicate assessment findings verbally and in writing

Course Content:

Unit I | Comprehensive Health History

1. OVERVIEW OF HEALTH ASSESSMENT:

- Physical assessment and the nursing process
- Health history and documentation
- Assessment modalities:
 - Effective interviewing
 - Physical assessment
- Components of the complete health history
- Technologies used in assessment
- Resources and equipment needed:
 - Weighing scales
 - Measuring tape line
 - Blood pressure machine
 - Pulse oxy
 - Tuning fork
 - Snelling eye chart
 - Hammer
 - Stethoscope
 - Tongue blade
 - Ophthalmoscope

Unit II | Systematic Physical Assessment

- Safety measures considered in health assessment
- Physical assessment techniques
- General assessment of a patient
- Integumentary assessment - skin, hair and nails
- HEENT/neck assessment - eyes, ears, nose, mouth and throat, head and neck
- Chest pulmonary assessment - breast and regional nodes, chest, thorax and lungs

Semester III

- Cardiovascular assessment - Heart and peripheral vasculature
- Abdominal assessment
- Musculoskeletal system
- Male and female genitourinary systems
- Rectal/prostate inspection/palpation on a healthy adult
- Inspecting a patient with rectal or prostate pathology

Unit III | Assessment of Specialized Groups

- Head-to-toe assessment of a pediatric patient
- Physical assessment of a pregnant patient
- Newborn assessment
- Geriatric assessment
- Pregnancy assessment
- Labor assessment
- Postpartum assessment

Unit V | Other Assessment

- Developmental assessment
- Nutritional assessment
- Mental status and neurological techniques
- Domestic violence in health assessment

Unit IV | Investigations

- Laboratory
- Radiological

Unit V | Documentation of All Findings

Clinical Course Description

This clinical course provides the learner with an opportunity to enhance basic midwifery skills gained in previous clinical courses. The learner also has the opportunity to carry out assessment on patients in the real health setting to develop relevant skills. The practicum allows for collaboration and consultations with members of the health team.

Clinical Objectives:

At the end of this course, the student will be able to:

- Conduct comprehensive health assessment of a patient using the appropriate assessment tool
- Participate in the process of assessing, diagnosing, planning, implementing and evaluating factors that are directly and indirectly affecting an individual's health
- Accurately document data gathered from assessment
- Assessing own strengths and weaknesses in the implementation of the nursing process
- Collaborate with members of the health team for provision of quality health care

Clinical Placement:

- Wards
- Outpatient department
- Clinical skills laboratory

Clinical Skills:

- Measuring and monitoring weight
- Measuring using a tape line
- Blood pressure measurement
- Pulse reading
- Performing acuity tests using:
 - Tuning fork
 - Snellen's chart
 - Percussion hammer
 - Stethoscope

Semester III

- Tongue blade
- Documenting of findings

Resources:

- Sphygmomanometer and stethoscope
- Tuning fork
- Ophthalmoscope
- Tongue blade
- Tape line
- Percussion hammer
- Snellen's chart

Competencies

Knowledge	Attitudes/Behaviors	Skills
Demonstrates knowledge of basic scientific methods and processes	Appreciates strengths and weaknesses of scientific bases for practice Values the need for ethical conduct in practice and research	Critiques research for application to practice Participates in data collection and other research activities
Understands the use and importance of nursing data for improving practice	Values the importance of nursing Data to improve nursing care	Describes the computerized systems presently utilized to facilitate patient care
Describes how diverse cultural, ethnic, spiritual and socioeconomic backgrounds function as sources of patient, family, and community values	Describes how diverse cultural, ethnic, spiritual and socioeconomic backgrounds function as sources of patient, family, and community values	Implements nursing care to meet holistic needs of patient socioeconomic cultural, ethnic and spiritual values and beliefs influencing health care and nursing practice
Describes scope of practice and roles of interdisciplinary and nursing health care team members	Values the perspectives and expertise of all health team members	Functions competently within own scope of practice as a member of the health care team Assumes the role of team member or

Knowledge	Attitudes/Behaviors	Skills
Understands the use and importance of nursing data for improving practice	Values the importance of nursing data to improve nursing practice	Individually, or as a member of a group, uses information effectively to accomplish a specific nursing purpose Uses information technology to enhance own knowledge

Teaching/Learning Strategies:

- Classroom presentations
- Group exercises
- Educational games
- Demonstration
- Coaching
- Homework and laboratory assignments

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Required Resources:

- Hand outs
- Skills lab
- Anatomical modules

Clinical Evaluation:

- Logbook
- Checklists
- Care plans

Semester III

- OSCE

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

References:

Health Assessment and Physical Examination, ME.Z. Estes, 1998.

Physical Examination & Health Assessment, 3rd Ed., Carolyn Jarvis, 2000.

Physical Examination & Health Assessment, 5th Ed., Carolyn Jarvis, 2008.

The Lippincott Easy Series.

Course Title: Primary Health Care II (Community Health & Epidemiography)

Credits:

3

Duration:

16 weeks (14 instructional and 2 exams)

42 hours classroom

126 Clinical hours

Prerequisites:

All first year semester I courses

Placement:

Second semester, First Year

Introduction/Course Description:

This is the continuation of the concepts of Primary Health Care I. Students will gain an understanding of concepts critical to Primary health care and community health, including epidemiology and demography. Application of concepts will be obtained in classroom and field exercises.

General Objective:

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

- Understand the importance of the concept of epidemiology and demography in community/public health
- Understand how to analyze demographic health statistics
- Apply the basic concepts and principles of epidemiology and demography in relationship to nursing especially as they relate to community health.
- Analyze demographic health statistics
- Apply epidemiological concepts to field exercises

Specific Objectives:

Specifically, students will be able to:

- Describe community health
- Discuss history of community
- Discuss basic concepts of community
- Identify roles and functions of nursing in community health

Semester III

- Define epidemiology
- Describe concepts of epidemiology
- Describe the epidemiological model
- State the three levels of prevention
- Describe how epidemiology relates to medicine/public health/Nursing
- Define and interpret basic epidemiological measures of association, including an understanding of causality
- Discuss natural history of disease
- Identify the use of epidemiology and demography in public health/nursing

Course Content:

Unit I | Overview of Community Health/Theoretical Basis of Community Health Practice

1. DEFINITIONS

2. HISTORICAL DEVELOPMENT

3. THEORIES AND MODELS OF COMMUNITY HEALTH

4. BASIC CONCEPTS OF COMMUNITY HEALTH, PUBLIC HEALTH AND PRIMARY HEALTH CARE:

- Community as a client
- Levels of prevention

5. LEGAL AND ETHICAL FRAMEWORK IN COMMUNITY HEALTH:

- Public Health Act
- Millennium Development Goals
- National Health and Social Welfare Policy & Plan
- Essential Package of Health Services

Unit 2 | The Art and Science of Community Health

1. THE COMMUNITY AS A CLIENT

2. ASSESSMENT OF THE COMMUNITY:

- Approaches to assessing a community's health status
- Types of community needs assessments
- Community assessment methods
- Application of nursing process in community health assessment, diagnosis, planning, implementation, and evaluation
- Levels of prevention in the community (primary, secondary and tertiary)

3. COMMUNITY HEALTH AND THE MIDWIFE:

- Role of midwife

4. ACTIVITIES OF THE MIDWIFE IN COMMUNITY HEALTH:

- Community assessment

Semester III

- Community mobilization
- Health promotion
- Determinants of health
- Provision of MNCH and ASRH services in the community
- Management of outbreaks; disasters
- Management of community health information
- Training and supervision of traditional midwives

Unit 3 | Health Promotion

- Health promotion Frameworks
- Determinants of health and illness
- Communication and behavior change theories
- Culture, gender and health promotion
- Community mobilization
- Health promotion strategies
- Mobilizing and managing resources for health promotion program

Unit 4 | Environmental Health

- Public Health Act
- Environmental public health issues
- Water supply (in both urban and rural areas)
- Management of solid and liquid wastes (waste disposal)
- Environmental pollution and control
- Food hygiene

Unit 5 | Family Health

- The family as a client
- Theoretical frameworks guiding the family assessment process (structural-functional framework, interactional approach, developmental approach, systems approach)
- Family needs assessment
- Family health interventions

Unit 6 | School Health

- History of school health nursing
- The role of a community health nurse in school health
- Health assessment, screening, identification, referral and follow-up
- The School Health Program
- The School Health Policy
- Challenges of the implementation of the School Health Program
- School health services, program and plans -first aid, treatment of minor ailments
- Adolescent health
- Guidance and counseling
- School health records - maintenance and importance

Unit 7 | Community Home-Based Care and Palliative Care

- The concepts of home-based care and comprehensive community home-based care
- Roles and responsibilities of home-based care providers
- Policy on home-based care nursing
- Different levels of care in comprehensive community home-based care (CHBC)
- Models of community home-based care
- Issues in palliative care and home-based care nursing
- Discharge planning and continuity of care

Semester III

- Multi-sectoral approach in CHBC nursing

Unit 8 | Occupational Health

- The role of a community health nurse in the work settings
- Occupational health and safety act
- Health and safety in the workplace
- Ergonomics and ergonomic solutions
- Occupational hazards of different categories - physical, chemical, biological, mechanical, accidents, foreign bodies
- Health screening in occupational health settings
- Current occupational health issues
- Health promotion in the workplace [Prevention and control of occupational diseases, disability, limitation and rehabilitation)
- Women and occupational health
- Occupational educational and counseling
- Violence at workplace
- Legal issues including child labor and its implications to health of a child

Unit 9 | Disaster Preparedness

- The concept of disaster management
- The scope and nature of disaster and emergency
- Assessing the effects of a disaster
- The roles and responsibilities of the nurse, disaster teams and stakeholders in disaster management
- Disaster preparedness plan
- Principles of triage in managing a disaster

Unit I0 | Overview of Epidemiology

1. DEFINITION AND SCOPE OF EPIDEMIOLOGY

2. BASIC TERMINOLOGIES AND PRINCIPLES

3. OUTBREAK

4. INVESTIGATION

5. SURVEILLANCE

6. INTERPRETING DATA

7. SCREENING

8. NATURAL HISTORY OF DISEASES

9. DISEASE CONTROL AND PREVENTION

10. EMERGING AND RE-EMERGING EPIDEMICS (NATIONALLY, REGIONALLY AND GLOBALLY):

- Epidemiological report

11. EPIDEMIOLOGY IN THE FIELD OF PUBLIC HEALTH AND NURSING:

- Monitoring health
- Public health surveillance:
 - National Integrated disease surveillance program
 - Evaluating the effectiveness of public health interventions
 - Developing health policy
- Epidemiological studies:
 - Cross-sectional
 - Cohort
 - Case/control and clinical trials:
 - Descriptive
 - Analytical
 - Experimental

12. BASIC EPIDEMIOLOGICAL MEASURES OF ASSOCIATION INCLUDING AN UNDERSTANDING OF CAUSALITY

13. POPULATION SCREENING – SENSITIVITY, SPECIFICITY

Unit II | Use of Health Indicators in Epidemiology

1. TYPES OF HEALTH INDICATORS

2. DEFINITION AND TYPES OF HEALTH STATISTICS:

- Review of measurement of mortality:
 - Crude death rate
 - Maternal mortality rate
 - Infant mortality rate
 - Neonatal mortality rate
 - Postnatal mortality rate
 - Perinatal mortality rate
 - Stillbirth rate
 - Age-specific death rate

- Measures of morbidity

3. LIST AND DEFINE DISEASE RATES IN EPIDEMIOLOGY:

- Prevalence and incidence of a disease
- Relative risk, attributable risk

4. DEFINITION AND SCOPE OF EPIDEMICS:

- Epidemiological surveillance
- Epidemic prevention and control
- Epidemic in emergency and normal situations

5. PATIENT RECORD-KEEPING IN HEALTH FACILITIES:

- Managing health information
- Common terms used in epidemiological reports
- Importance of epidemiological reports
- Stock management system in health facilities

- Public health and midwifery

6. EPIDEMIOLOGICAL SURVEY (FIELD EXERCISES) (LAB):

- Conducting an epidemiologic study and compiling an epidemiological report

Unit III | Demography

1. BRIEF HISTORY OF DEMOGRAPHY

2. DEFINITION OF DEMOGRAPHY

3. SCOPE OF DEMOGRAPHY:

- Size
- Distribution
- Structure
- Change
- Population pyramid

4. SOURCE OF POPULATION DATA:

- Conventional source
- Unconventional source

5. CALCULATION OF RATES AND RATIOS DEMOGRAPHIC VARIABLE:

- Sex ratio
- General sex ratio
- Dependency ratio
- Age ratio
- Birth rate
- Death rate

6. ASPECTS OF POPULATION CENSUS:

- Static
- Dynamic

Semester III

7. TYPES OF CENSUS ERRORS:

- Coverage
- Content

8. PROCEDURES USE IN CENSUS ENUMERATION:

- De jure
- De facto
- Household
- Canvasser

9. TYPES OF DEMOGRAPHIC SURVEYS:

- Single-round
- Multi-round

10. VITAL REGISTRATION SYSTEM

11. LEGAL STATUS OF VITAL STATISTICAL SYSTEM IN LIBERIA

12. METHOD OF OBTAINING SYSTEMATIC VITAL STATISTICS:

- Registration method
- Enumeration method
- Survey method
- Population register

13. STOCK AND FLOW DATA

14. ESTIMATES AND USES OF POPULATION GROWTH RATES (LAB):

- Arithmetic growth rate
- Geometric growth rate
- Exponential growth
- Annual change
- Absolute change
- Intersensal growth rate

- Population pyramid

15. FERTILITY AND REPRODUCTION:

- Crude birth rate
- General fertility rate
- Age specific fertility rate
- Total fertility rate
- Gross reproduction rate
- Net reproduction rate

16. MEAN NUMBER OF CHILDREN EVER BORN

17. AGE PATTERN OF FERTILITY:

- Mean age
- Median age
- Modal age

18. BY URBANIZATION AND RURALIZATION:

- Education attainment
- Marriage
- Types of occupation
- Types of religion
- Population projection

Clinical Title: Community Health (Clinical)

Clinical Description:

The focus of this practicum course is to provide learners with an opportunity to strengthen their basic skills. The practicum provides an opportunity for learners to carry out client assessments in a variety of community-based settings so as to develop relevant and appropriate interventions to promote health and prevent diseases amongst individual, families and communities. The practicum allows for collaboration, consultation and forging of partnerships with various stakeholders, referral and continuity of care.

Clinical Objectives:

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

- Build effective partnerships with clients in the community
- Conduct a comprehensive assessment of the health needs of all the clients using a number of community assessment frameworks
- Participate in the process of planning, implementing, monitoring and evaluating a health promotion or illness prevention strategy, as a member of a team
- Work as an advocate for improved and/or needed health resources
- Network with community partners in serving the health care needs of the clients in the community
- Manage health information on issues and problems related to the health of individuals, families, groups and communities
- Plan for sustainability of implemented health promotion programs

Clinical Placement Settings:

- Health canthers
- Community
- Schools
- Industries
- Water works and sewerages
- Information office at the hospital and clinic
- SGB support units

Skills:

- Community health assessment
- Documentation and reporting
- Family health assessment
- Community mobilization
- Community project planning and implementation
- Program evaluation
- Planning a lesson for health education
- Micro teaching
- Use of visual aids
- Compiling weekly/monthly statistics

Competencies

Knowledge	Attitudes/Behaviors	Skills
Demonstrates understanding of community health nursing frameworks in the process of conducting assessments of clients (individuals, families, groups and communities) health needs	Values assessing health care situations through the eyes of a client	<p>Negotiates successfully community and family entry and adheres to principles of gaining entry to the community and family</p> <p>Develops effective partnership with clients in an ethical manner</p> <p>Generates an appropriate nursing diagnosis that is based on collected data</p>
Demonstrates understanding of the various intervention strategies used to promote health and prevent illness at a community level	<p>Respects client's rights to make decisions in planning their care and encourages their input into decisions about interventions to be implemented</p> <p>Values individual cultural and personal diversity</p> <p>Accepts the role and responsibility for providing health education to patients and families</p>	<p>Plans and implements community-based health promotion interventions in collaboration with clients and members of the health care team.</p> <p>Mobilizes members of the community to represent the community/clients in the project team</p> <p>Develops culturally sensitive health promotion intervention plans/program, which are based on agreed upon priority health need/s</p> <p>Develops a comprehensive project proposal and articulates it clearly detailing each step</p> <p>Mobilizes resources required to execute the community intervention</p>

Teaching/Learning Strategies:

- Classroom presentations
- Group exercises
- Educational games
- Demonstration
- Coaching
- Homework and laboratory assignments

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Required Resources:

- Handout: Alma Alta Declaration

Assessment of Learning:

Formative Assessment:

- Group projects
- Community needs assessment
- Epidemiological study
- Evaluation of a health promotion program
- Individual project: Family case study

Summative Assessment:

- Observation: Implementation of a health promotion program in the community (Practical)

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

References:

Essentials of Demographic Analysis for Africa: Introduction to Public Health and Epidemiology, 1982, G. M. K. Kpedekpo.

McEwen, M. & Nies, A. M. (2007). Community/Public Health Nursing: Promoting the Health of Populations (4th ed). New York: Saunders.

Recommended Readings

Clark, M. J. (2005). Nursing in the community: Dimensions of community health. Appleton & Lange, Stamford, Connecticut.

Nies, M. & McEwen, M. (2006). Community health nursing: Promoting the health of populations. Philadelphia: W. B. Saunders.

Van Wyk, N & Leech, R. (2011) Nursing in the Community. Pearson Education: South Africa.

Course Title: Pharmacology and Drug Calculations

Credits:

4

Placement:

First semester of second year (third semester)

Duration:

16 weeks (14 instructional and 2 exams)

56 hours classroom

Pre-requisites:

Basic Math, Fundamentals of Nursing I & II, Anatomy and Physiology I, Integrated Basic Sciences, Primary Health Care I

Introduction/Course Description:

This course highlights major drug classifications and nursing management required for drug therapy. Pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions are discussed in general and in relation to each drug classification. Patient variables and their relevance to pharmacology are discussed: health status, environment, lifespan, gender, lifestyle, diet, habits, and culture. This course will also provide the basis for classification, storage, accurate dosage calculation, side effects and drug administration to pediatric, adult and geriatric patients in various health settings. The course will also teach students to identify drugs according to classes and how each class affects various body systems.

General Objectives:

By the end of this course, the student will be able to:

- Discuss the pharmacological principles of drugs as they relate to the calculation and administration of drugs
- Understand pharmacokinetics, pharmacodynamics, pharmaco-therapeutics and adverse effects of medicines on clients of all ages
- Calculate dosages correctly based on age and weight of patients
- Demonstrate understanding of contra-indications and adverse effects of medicines before and during administration
- Display knowledge of pertinent considerations when storing, and administering medicines

Specific Objectives:

The student will be able to:

- List the rights and errors associated with medication administration
- State the sources of drugs and give specific examples
- Demonstrate effective dosage calculations using various formulas
- Describe the various mechanisms of drug actions
- Discuss factors that influence drug action
- Explain the various adverse responses to drugs
- Explain the advantages and disadvantages of self-medication
- Discuss the classification and mechanism of action of antimicrobial agents
- Describe the problems associated with antimicrobial therapies
- Discuss the types and function of serum and vaccines
- List and explain the classification of vitamins and their function
- Discuss the importance of minerals on various body systems
- Describe the classification of vitamins and their function
- Discuss the importance of minerals on various body systems
- Distinguish between the functions of the sympathetic and parasympathetic nervous system
- Discuss the indications, side effects, contra-indications and nursing implications of adrenergic agonist, adrenergic antagonist and anti-cholinergic agents
- Identify and discuss the anatomical structures and physiology of the central nervous system
- Discuss the difference between CNS stimulants and CNS depressants
- Explain the renin-angiotensin-aldosterone system
- Identify the various classes of drugs along with the indications, actions, side effects, contra-indications and nursing implications of drugs used in treating cardiovascular disorders
- Describe the route of administration, action, desired effects, nursing implications and contra-indications of various classes of drugs affecting the respiratory system

Semester III

- Describe the route of administration, actions, desired effects, nursing implications and contra-indications of drugs used in the treatment of metabolic and endocrine disorders.
- Identify drugs used in the treatment of metabolic and endocrine disorders
- Describe the route of administration, actions, desired effects, nursing implications and contra-indications of various drugs that affect the reproductive systems

Course Content:

Unit I | Introduction to Pharmacology and Drug Administration

- Orientation and overview of the course
- Definition of pharmacology and significant terms
- Historical backgrounds of pharmacology
- Branches of pharmacology
- Drug control and standard
- Sources of drug information

1. MEDICINES CONTROL LEGISLATION

2. NOMENCLATURE FOR MEDICINES:

- Chemical name
- Generic name
- Trade name

Unit 2 | Preparation and Classification of Medicines

1. PREPARATION OF MEDICINES

2. CLASSIFICATION OF MEDICATIONS

3. DOSAGE CALCULATION FOR MEDICINES

4. STORAGE, PREPARATION AND ADMINISTRATION OF MEDICINES

Unit 3 | Drug Administration Management

1. QUALITY AND SAFETY IN DRUG THERAPY, THE NURSE'S RESPONSIBILITY:

- The ten rights
- Systematic prevention of drug errors
- Communication with prescribing health care provider and pharmacist
- Drug calculations (laboratory component)

Semester III

2. DRUG FORMULATIONS (LABORATORY COMPONENT):

- Suspensions
- Mixture
- Emulsion
- Syrup
- Pills
- Capsules
- Extended release formulations

3. DRUG CALCULATIONS

4. SOURCES OF DRUGS:

- Animals
- Minerals
- Chemical
- Plants

5. DRUG STANDARDS:

- National Formulary
- Purpose
- Over the counter drugs
- Herbals and biologics

6. DRUG LEGISLATION ABOUT THE DISPENSING AND USE OF DRUGS IN LIBERIA:

- Narcotic laws
- Testing new drugs

Unit II | Drug actions:

1. PHARMACOKINETICS:

- Absorption

- Metabolism
- Distribution
- Excretion

2. PHARMACODYNAMICS:

- Drug-receptor interactions
- Drug responses that do not involve receptors
- The therapeutic index

3. FACTORS INFLUENCING DRUG ACTION:

- Age
- Body weight
- Pathological conditions
- Diet
- Route
- Dosage
- Time of administration

4. ADVERSE RESPONSE TO DRUGS:

- Toxicity
- Drug allergy
- Tolerance
- Calculation
- Physical dependence
- Psychological dependence
- Drug interactions
- Pregnancy and breastfeeding

5. COMMUNICATION REQUIRED RELATED TO ADVERSE EFFECTS, ERRORS AND PATIENT HARM (4 HOUR LAB WITH CASE STUDIES AND ROLE PLAY)

Unit III | Psychological Aspects

1. PSYCHOLOGICAL ASPECT TO DRUG AND SELF-MEDICATION:

- Placebo
- Symbolic meaning of drugs
- Effect of drug on the mind

2. SELF-MEDICATION:

- Advantages
- Disadvantages

3. NURSING RESPONSIBILITY:

- Teaching the public on the danger of drug misuse

Unit V | Classes of Medicines

- Analgesics
- Anti-inflammatory
- Fluids and electrolytes
- Anti-convulsants
- Antihypertensive agents
- Anesthetics
- Muscarinic agonists and antagonists
- Anti-infective agents
- Anti-neoplastic agents
- Antidepressants and depressants
- Antipsychotic agents
- Sedatives and hypnotics
- Anti-diabetic agents
- Vitamins
- Antihistamines

- Anti-retroviral drugs

Unit VI | Antimicrobial Therapy

1. SELECTIVE TOXICITY

2. CLASSIFICATION OF ANTIMICROBIALS:

- Broad spectrum versus narrow spectrum
- Bacteriostatic versus bactericidal
- Mechanism of action:
 - Drugs that weaken the bacterial cell wall
 - Drugs that inhibit bacterial protein synthesis
 - Drugs that inhibit synthesis of DNA or RNA, or disrupt DNA function
 - Antimetabolites
 - Drugs that suppress viral replication
 - Classification by susceptible organism

3. PROBLEMS WITH ANTIMICROBIAL THERAPIES:

- Acquired resistance
- Super infection
- Allergic reaction
- Anaphylaxis

4. SYSTEMIC ANTIBIOTICS; PHARMACOTHERAPEUTICS, PHARMACOKINETICS, PHARMACODYNAMICS, CONTRAINDICATIONS, PRECAUTIONS, ADVERSE EFFECTS AND INTERACTIONS:

- Penicillin
- Tetracycline
- Sulfonamides
- Chloramphenicol
- Antifungal drugs
- Fluoroquinolones

Semester III

5. USE OF LOCAL ANTI-INFECTIVE DRUGS:

- Drugs against cestodes and nematodes: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Drugs for shistosomiasis: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Drugs for amebiasis: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions

6. ADMINISTRATION OF INTRAVENOUS DRUGS

Unit V | Vaccines

Vaccines

1. INTRODUCTION:

- Definition and function
- Laboratory component: practice interpreting immunization schedule, teaching families, administering and documenting immunizations

2. TYPES THAT PRODUCE ACTIVE IMMUNITY:

- Measles
- BCG
- DTwPHibHep: diphtheria, tetanus, pertussis, haemophilus influenza B, hepatitis B
- Rubella
- Yellow fever
- Oral polio vaccine

3. TYPES THAT PRODUCE PASSIVE IMMUNITY:

- Immunoglobulin
- Tetanus Antitoxin

4. ANTIGEN FOR DIAGNOSTIC TESTS I.E., PPD

Unit VI | Minerals, Vitamins

1. ELECTROLYTES:

- Potassium, sodium, calcium
- Magnesium
- Chloride

2. VITAMINS:

- Water soluble: Vitamin B, C and B complex
- Fat soluble: Vitamin A, D, E

Unit VII | Drugs Affecting the Central Nervous System

1. INTRODUCTION TO CNS PHARMACOLOGY

2. DRUGS FOR PAIN:

- Opioids: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Opioid antagonists: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Non-steroidal anti-inflammatories (NSAIDS): pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects, and interactions
- Acetaminophen: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects, and interactions
- Adjuvants
- Local anesthetics

3. ANTI-SEIZURE MEDICATIONS:

- Therapeutic goals and patient adherence
- Phenytoin: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Barbiturates: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions

Semester III

- GABA enhancer: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Drugs for status epilepticus

4. PSYCHOTHERAPEUTIC DRUGS:

- Anti-depressants:
 - Selective serotonin re-uptake inhibitors (Fluoxetine): pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
 - Butropion: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions

5. MOOD-STABILIZING DRUGS:

- Lithium
- GABA enhancers

6. ANTI-PSYCHOTICS: GENERAL ADVERSE EFFECTS:

- Extra-pyramidal symptoms
- Anti-cholinergic effects
- Sedation
- Orthostatic hypotension

7. CNS STIMULANTS FOR ATTENTION DEFICIT/HYPERACTIVITY DISORDER (ADD/ADHD)

8. DRUG ABUSE AND ITS MANAGEMENT

Unit VIII | Pharmacology of the Peripheral Nervous System

1. THE AUTONOMIC NERVOUS SYSTEM:

- Sympathetic and parasympathetic systems
- Agonists and antagonists
- Regulation of functions throughout the body by the ANS

2. ADRENERGIC AGONISTS

3. ADRENERGIC ANTAGONISTS

4. ANTI-CHOLINERGICS**5. CHOLINESTERASE INHIBITORS:****6. NON BARBITURATE SEDATIVES AND HYPNOTICS****Unit IX | Drugs Affecting the Cardiovascular System****1. REVIEW OF HEMODYNAMICS:**

- Renin-angiotensin-aldosterone system
- Cardiac output and peripheral resistance
- Renal regulation of blood pressure
- Effects of the sympathetic nervous system
- Sympathetic baro-receptor reflex

2. DRUGS ACTING ON THE RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM:

- ACE inhibitors – Captopril and Enalapril: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Angiotensin II receptor blockers – Losartan: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Aldosterone antagonists – Spironolactone: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Calcium channel blockers – Verapamil; Diltiazem: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Diuretics – Furosemide; Hydrochlorothiazide: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects, and interactions
- Beta-adrenergic blockers – Atenolol, Propranolol, Labetalol: pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Alpha1 blockers – pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions

Semester III

- Direct-acting Vasodilators – pharmaco-therapeutics, pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions

3. ANTI-DYSRHYTHMICS:

- Review of cardiac conduction system
- Principles of antidysrhythmic therapy
- Lidocaine: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions

4. ANTICHOLESTEROL DRUGS:

- Statins:
 - Pharmacokinetics
 - Pharmacodynamics
 - Contraindications
 - Precautions
 - Adverse effects
 - Interactions

5. ANTI-COAGULANTS:

- Heparin: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Warfarin: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Aspirin: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions

6. CARDIAC GLYCOSIDES – DIGOXIN:

- Pharmacokinetics
- Pharmacodynamics
- Contraindications
- Precautions
- Adverse Effects
- Interactions

7. LAB PRACTICE: PERFORMING AND INTERPRETING EKGs

Unit X | Drugs Affecting the Respiratory System

1. INTRODUCTION – REVIEW ANATOMY AND PHYSIOLOGY OF THE RESPIRATORY SYSTEM

2. DRUG THERAPY FOR ASTHMA:

- Severe persistent asthma
- Acute exacerbations of asthma
- Lab practice: administration of respiratory drugs
- Beta-adrenergic drugs – Albuterol: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Pharmacology of glucocorticoids:
 - Inhaled glucocorticoids – Beclomethasone: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
 - Systemic glucocorticoids – Prednisone: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Anti-asthmatic drugs used in combination with other anti-asthmatics:
 - Cromolyn – pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
 - Anti-cholinergic drugs – Ipratropium: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
 - Leukotriene modifiers – Montelukast: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions

Unit XI | Drugs for endocrine disorders

1. DRUG THERAPY OF DIABETES MELLITUS TYPE 1:

- Insulin: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Teaching management of insulin therapy

Semester III

2. DRUG THERAPY OF DM TYPE 2:

- Oral hypoglycemic agents – Metformin: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Oral hypoglycemic agents – Glibenclamide (a sulfonurea): pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions

Unit XII | Drugs Affecting the Reproductive System

1. ORAL CONTRACEPTIVES: PHARMACOKINETICS, PHARMACODYNAMICS, CONTRAINDICATIONS, PRECAUTIONS, ADVERSE EFFECTS AND INTERACTIONS

2. OTHER CONTRACEPTIVE DELIVERY SYSTEMS

3. DRUGS AFFECTING UTERINE FUNCTION:

- Oxytocin: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Misoprostol: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions
- Magnesium sulfate: pharmacokinetics, pharmacodynamics, contraindications, precautions, adverse effects and interactions

Unit XIII | Summary: Using Drug Information Resources

1. IDENTIFICATION OF DRUG INFORMATION RESOURCES FOR CLINICAL PRACTICE

2. RECOGNITION OF ONGOING CHANGES IN DRUG THERAPIES

3. NURSING RESPONSIBILITIES IN SAFE AND EFFECTIVE DRUG THERAPY

Competencies

Knowledge	Attitudes/Behaviors	Skills
<p>Delineates general categories of errors and hazards in care</p> <p>Describes factors that create a culture of safety</p> <p>Describes optimal processes for communicating with patients/ families experiencing adverse events</p>	<p>Recognizes the importance of transparency in communication with the patient, family, and health care team around safety and adverse events</p> <p>Recognizes the complexity and sensitivity of the clinical management of medical errors and adverse events</p>	<p>Participates in collecting and aggregating safety data</p> <p>Uses organizational error reporting system for “near miss” and error reporting</p> <p>Communicates observations or concerns related to hazards and errors involving patients, families, and/or health care team</p> <p>Utilizes timely data collection to facilitate effective transfer of patient care responsibilities to another professional during transitions in care (“hand-offs”)</p> <p>Discusses clinical scenarios in which sensitive and skillful management of corrective actions to reduce emotional trauma to patients/families is employed</p>
<p>Demonstrates knowledge of basic scientific methods and processes regarding the administration of medicines</p>	<p>Appreciates the strength of scientific bases for practice</p>	<p>Correctly and accurately administers medications</p>

Teaching/Learning Strategies:

- Classroom presentations
- Group exercises
- Educational games
- Demonstration
- Coaching
- Homework and laboratory assignments

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Semester III

References:

Basic and Clinical Pharmacology, 6th Ed., G.B. Katzung, 2006.

Required Resources:

- Library
- Skill lab
- Internet
- Blackboard/flip chart
- Notebook/handout

Course Evaluation:

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Medical Surgical Nursing I

Credits:

4

Placement:

First semester of second year (third semester)

Duration:

16 weeks (14 instructional and 2 exams)

56 classroom hours

168 clinical hours

Course Description:

This is the first part of a two-part course that focuses on nursing care delivery systems for adult clients and acute and chronic medical-surgical problems. The course provides the theoretical foundation for the student nurse in Medical-Surgical Nursing. It also fundamentally prepares the student nurse to provide nursing care for the adult client in medical and surgical situations. This part of the course places emphasis on medical care and enables the learner to gain knowledge and skills to effectively provide care and manage adults with medical diseases and conditions. Emphasis is placed on utilization of knowledge of the nursing process, and essential health package in the African Region (within the context of primary health care approach).

Broad Course Objectives:

- Establish therapeutic relationship between the nurse and patient
- Demonstrate competence in analysis of assessment data in identifying problems of the adult patient with acute and chronic diseases and conditions
- Comprehensively provide care and management of the adult patient based on the utilization of the nursing process, essential health package and the primary health care approach
- Demonstrate knowledge of pharmacologic agents used in the treatment of adults with acute and chronic medical diseases and conditions
- Assess level of patient's reaction to illness
- Appropriately use the concepts in each unit in the clinical setting

Specific Course Objectives:

At the end of this course, student will be able to

- Describe the nurse-patient-relationship
- Discuss verbal and nonverbal communications

Semester III

- Discuss the purpose of health assessment
- Describe the purpose of medical history
- Describe the recommended steps for taking medical history of an adult patient
- Explain relationship between how to conduct interview and medical history
- State the purpose of physical examination
- Describe the recommended steps for performing an adult physical examination
- Discuss the purpose of history taking in the nursing process
- Define/describe:
 - Osmosis
 - Diffusion
 - Selectively/semi-permeable
 - Hypotonic, hypertonic solution
 - Universal donor and recipient
 - Hemolysis
 - Blood types
- Explain the normal fluid, electrolyte, and acid-base balance of the body
- Describe the pathophysiology of fluid, electrolyte, and acid-base imbalances
- List signs and symptoms of fluid, electrolyte, and acid-base imbalance
- List four symptoms of reaction to blood transfusion
- Discuss appropriate nursing measures for each blood transfusion reactions
- Explain the causes of diseases and injuries
- Explain the phenomenon of stress and stress theory
- Explain causes and management of stress
- Describe the types, causes, and symptom of shock
- Discuss shock management
- Describe the immediate management for hemorrhage
- Describe the common causes of wound infection

- Describe nursing care of wound infection
- List and explain three body defenses
- Describe the classification of tumor and cancer
- Describe the warning signs of cancer
- Discuss the common types of cancer in Liberia and their management
- Describe complications associated with the methods of treatment and the appropriate nursing measures
- Describe measures for the early detection and prevention of cancer
- Describe the various classifications of surgical patient
- Identify laboratory and diagnostic tests used in the perioperative period
- Describe nursing implications for medications prescribed for the surgical patient
- Discuss diagnostic and treatment procedures perioperative patient
- Discuss variations in perioperative nursing care for older adults
- Discuss principles of pain management specific to acute post-operative pain control
- Discuss the nursing process as a framework for providing care for the client undergoing surgery
- Review A&P of eye, ear, nose, throat, and mouth
- Identify common eye, ear, nose, throat, and mouth problems
- Describe common eye, ear, nose, throat, and mouth problems
- Discuss diagnostic and treatment procedures for common eye, ear, nose, throat, and mouth problems
- Describe the nursing management for patients undergoing surgery of the eye, ear, nose, and throat problems
- Diagnose and treat common conditions of the eye, ear, nose, throat, and mouth
- Demonstrate the procedures for the removal of foreign bodies in the eye, ear, nose, and throat
- Plan and give health talks in the prevention of eye, ear, nose, and throat problem and dental hygiene
- Identify common respiratory problems

Semester III

- Describe the medical treatment for respiratory problems
- Diagnose and treat common respiratory conditions
- Provide nursing care for patient with medical respiratory problems
- Describe nursing management for the patient undergoing surgery for respiratory disorder
- Plan and give health talks to prevent respiratory conditions
- Identify respiratory conditions and emergencies for hospital referral
- Describe complications of respiratory condition and nursing intervention

Course Content:

Unit I | Introduction to Medical Surgical Nursing

- Definitions of common terms
- Importance of medical surgical nursing
- Introduction and theoretical basis of medical care nursing:
 - History of medical nursing and common terminologies
 - Concepts and theories
 - Ethical and legal issues in the provision of medical care

Unit II | Nurses' Understanding of Self and the Patient

1. NURSE – PATIENT RELATIONSHIP:

- Phases of a nurse patient relationship

2. INTERPERSONAL ASPECT OF NURSING:

- The nature of nursing
- The concept of human-being

3. ILLNESS AND SUFFERING:

- Reactions to illness
- Suffering
- The problem of pain

4. VERBAL AND NONVERBAL COMMUNICATION

Unit III | Overview of Health Assessments

1. DISCUSSION OF THE PURPOSE OF HEALTH ASSESSMENT

2. MEDICAL HISTORY:

- History of present illness
- Past medical history

3. PHYSICAL EXAMINATION:

- Description

Semester III

4. RELATIONSHIP BETWEEN PHYSICAL EXAMINATION AND MEDICAL HISTORY

5. PURPOSE OF PHYSICAL EXAMINATION

6. STEPS IN PHYSICAL EXAMINATION:

- Observation
- Inspection
- Auscultation
- Palpation
- Percussion
- Recording of information

7. NURSING HISTORY:

- Components
- Demographic data
- Important health information

8. FUNCTIONAL HEALTH PATTERN

Unit III | Fluids and Electrolytes, and Acid-Base Imbalances

1. NORMAL FLUIDS, ELECTROLYTES, AND ACID-BASE OF THE BODY

2. PATHOPHYSIOLOGY OF FLUID, ELECTROLYTE AND ACID-BASE IMBALANCES

3. SIGNS/SYMPTOMS OF FLUID AND ELECTROLYTE IMBALANCES

4. TREATMENT AND NURSING MANAGEMENT:

- Nursing management of patient with fluid, electrolyte, and acid-base imbalances
- Treatment and nursing care for fluid, electrolyte, and acid-base imbalance

5. SYMPTOMS OF BLOOD REACTION

6. TREATMENT/NURSING CARE FOR BLOOD TRANSFUSION REACTION

Unit IV | Body Reaction to Injury, Disease, and Stress

1. CAUSES OF DISEASES AND INJURY:

- Body reaction to injury, diseases, and stress
- Phenomenon of stress and theories
- Causes and management of stress
- Shock:
 - Causes
 - Types
 - Symptoms
 - Management
- Hemorrhage:
 - Immediate measure to control hemorrhage
- Common wound infections:
 - Causes
 - Nursing care
- Body's defense:
 - External
 - Internal
 - Tissue healing

Unit IV | Cancer Nursing

1. CLASSIFICATION OF TUMOR AND CANCER

2. WARNING SIGNS OF CANCER:

- Unusual bleeding
- Change In bowel habit
- Persistent cough
- Sore that does not heal

Semester III

3. COMMON TYPES OF CANCER IN LIBERIA AND THEIR MANAGEMENT

4. COMPLICATIONS OF CANCER TREATMENT:

- Radiation
- Chemotherapy
- Surgery
- Nursing care of patient on therapy
- Early detection of cancer
- Cancer prevention

Unit V | Care of the Surgical Patient

1. CLASSIFICATION OF SURGICAL PROCEDURE

2. LABORATORY AND DIAGNOSTIC TESTS

3. PREOPERATIVE MEDICATIONS

4. DIAGNOSTIC AND TREATMENT PROCEDURES

5. NURSING CARE IN THE FOLLOWING PHASES:

- Preoperative
- Intraoperative
- Postoperative

6. PERIOPERATIVE CARE FOR THE ADULT PATIENT

7. PRINCIPLES OF PAIN MANAGEMENT SPECIFIC TO ACUTE POST-OPERATIVE PAIN CONTROL

8. NURSING PROCESS AS A FRAMEWORK FOR PROVIDING CARE FOR PATIENT UNDERGOING SURGERY

Unit VI | Problems of the Eyes, Ears, Nose, Throat, and Mouth

1. OVERVIEW OF A&P OF THE EYE, EAR, NOSE, THROAT, AND MOUTH

2. ASSESSMENT OF COMMON EYE, EAR, NOSE, THROAT, AND MOUTH PROBLEMS

3. COMMON EYES DISORDERS:

- Blephritis
- Cataract
- Conjunctivitis
- Corneal ulceration
- Glaucoma
- Myopia
- Pterygium

4. DIAGNOSTIC PROCEDURES AND TREATMENT:

- Common surgery
- Medical
- Rehabilitation
- Cataract removal
- Enucleation

5. COMMON EAR PROBLEMS:

- Otitis media
- Fungal infection
- Foreign body in the ear
- Deafness

6. DIAGNOSTIC PROCEDURE AND TREATMENT:

- Common surgery
- Medical
- Rehabilitation

7. COMMON NOSE PROBLEMS:

- Rhinitis
- Sinusitis

Semester III

- Foreign bodies in the nose
- Nose bleed
- Polyps

8. DIAGNOSTIC PROCEDURES AND TREATMENT:

- Common surgical procedures
- Medical
- Rehabilitation

9. NURSING CARE AND MANAGEMENT OF CLIENTS WITH GASTROINTESTINAL SYSTEM DISEASES AND CONDITIONS:

- Overview of the gastrointestinal system
- Assessment of the G.I.T.
- Disorders/diseases of the G.I.T:
 - Constipation
 - Diarrheas
 - Dysentery
 - Cholera
 - Typhoid fever
 - Vomiting
 - Peritonitis
 - Gastritis
 - Duodenal and gastric ulcers
 - Appendicitis
 - Hernia
 - Intestinal obstruction
 - Gall bladder and liver disorders

10. COMMON THROAT PROBLEMS:

- Tonsillitis and pharyngitis
- Abscess

- Adenitis
- Laryngitis

11. DIAGNOSTIC PROCEDURES AND TREATMENT:

- Medical
- Surgical—Tonsillectomy or I & D
- Rehabilitation

12. COMMON CONDITIONS OF THE MOUTH:

- Dental caries
- Stomatitis
- Periodontal diseases
- Herpes simplex
- Abscesses

13. DIAGNOSTIC PROCEDURES, TREATMENT, AND DENTAL HYGIENE

14. NURSING MANAGEMENT OF DISORDERS AND CONDITIONS OF SPECIAL SENSORY ORGANS:

- Eye:
 - Conjunctivitis
 - Cataract
 - Furuncles
 - Sty
- Nose:
 - Sinusitis
 - Smelling disruptions
- Ear:
 - Otitis media
 - Hearing disruptions
- Mouth and throat

Semester III

- Overview of sensory
- Assessment of sensory organs

15. DIFFERENTIAL DIAGNOSIS, TREATMENT REGIMEN BASED ON STANDING ORDERS

16. REMOVAL OF FOREIGN BODIES IN THE EYE, EAR, NOSE, THROAT, AND MOUTH

17. PLANNING HEALTH TALKS IDENTIFYING PRIORITY EYE, EAR, NOSE, THROAT PROBLEM, AND DENTAL HYGIENE.

Unit VIII | Problems of the Respiratory System

1. PROBLEMS OF THE RESPIRATORY SYSTEM:

- Review of A&P of the Respiratory System
- General Assessment and Medical History
- Diagnostic Procedures
- Common Disorders:
 - Pneumonia
 - Asthma
 - Bronchitis
 - Atelectasia
 - Emphysema
 - Emphysema
 - Tuberculosis
 - Bronchiectasis
 - Pulmonary embolism
 - Lung abscess
 - Rib fractures
 - Pneumothorax
 - Penetrating wound
 - Pleurisy

2. **MEDICAL TREATMENT AND CARE OF PATIENTS WITH RESPIRATORY CONDITION LISTED ABOVE**
3. **NURSING MANAGEMENT FOR SURGICAL PATIENTS**
4. **PLANNED HEALTH TALKS**
5. **PREVENTIVE MEASURES**
6. **ASSESSMENT AND GUIDELINES FOR REFERRALS**
7. **COMPLICATIONS AND THEIR NURSING INTERVENTIONS**

Unit IV | Nursing Care and Management of Clients with Endocrine System Diseases and Conditions

1. **OVERVIEW OF THE ENDOCRINE SYSTEM**
2. **ASSESSMENT OF THE ENDOCRINE SYSTEM**
3. **DISORDERS OF THE ENDOCRINE SYSTEM:**
 - Diabetes
 - Thyroid dysfunction
 - Cushing's syndrome
 - Addison's disease
 - Nursing implications of steroid therapy
4. **NURSING CARE AND MANAGEMENT OF PATIENTS WITH BLOOD AND IMMUNE SYSTEM DISORDERS:**
 - Overview of the immune system
 - Assessment of blood and immune system
 - Disorders/diseases of the blood and immune system:
 - Blood coagulation disorders
 - Blood transfusion reactions
 - Anemia; sickle cell
 - Malaria
 - Autoimmune response

Semester III

- Allergies and anaphylactic shock
- Immunosuppression
- Immunodeficiency
- HIV and AIDS
- Hemophilia
- Leukemia
- Hemorrhagic diseases (Ebola, Dengue)

5. NURSING CARE AND MANAGEMENT OF CLIENTS TAKING THE FOLLOWING PHARMACOLOGIC AGENTS:

- Anticoagulants
- Antibiotics
- Anti-thyroid medications
- HIV/AIDS medications
- Bronchodilators
- Electrolyte supplements
- Steroids
- Thyroid supplements
- Anti-cancer drugs

6. NURSING CARE AND MANAGEMENT OF CLIENTS WITH NERVOUS SYSTEM DISEASES AND CONDITIONS:

- Overview of nervous system
- Clinical manifestations of neurological problems/diseases:
 - Increased intracranial pressure
 - Cardiovascular accident
 - Head injuries
 - Meningitis
 - Epilepsy
 - Unconsciousness

- Delirium
- Dementia
- Alzheimer's
- Parkinson's
- Numbness and paralysis
- Neurogenic shock
- Cerebral palsy
- Brain tumors
- Rabies

7. NURSING CARE AND MANAGEMENT OF CLIENTS WITH DISORDERS AND CONDITIONS OF THE INTEGUMENT:

- Overview of the integumentary system
- Assessment of the integument
- Skin disorders:
 - Psoriasis
 - Acne
 - Rash
 - Eczema
 - Dermatitis
- Skin injuries:
 - Burns
 - Cuts
 - Abrasions
 - Contusions
 - Wound dressing
- Skin and mucosal infections:
 - Fungal infections (skin and nail)
 - Scabies
 - Boils/abscesses

Semester III

- Cancers of the skin:
 - Kaposi's sarcoma
- Herpes zoster
- Herpes simplex
- Steven-Johnson's syndrome
- Allergic reactions

Clinical Course Description

This clinical course will provide the learner the opportunity to develop skills and competences necessary for nursing care and management of the adult patient with medical diseases and conditions. The learner will be able to apply the knowledge of the nursing process, essential health package within the context of primary health care approach in the provision of care to adult patients with medical diseases and conditions.

Clinical Course Objectives:

- Demonstrate competence in assessment of an adult patient with medical diseases and conditions
- Demonstrate competence in preparation for diagnostic assessments done on adult patients with medical diseases and conditions
- Demonstrate competence in managing patients who are receiving pharmacologic agents used in the treatment of adult patients with medical diseases and conditions
- Demonstrate competence in identifying nutritional requirements of adult patients with medical diseases and conditions
- Apply psychosocial, cultural, spiritual, ethical and professional values in provision of nursing management of the adult patient with medical diseases and conditions and support for their families

Clinical Skills:

- Assessing respiratory functions
- Suctioning
- Intubating
- Applying oxygen therapy procedures by nasal cannula, face mask, etc.
- Nebulizing
- Cardio-pulmonary resuscitation by use of Ambu-bag, palms, etc.
- Teaching coughing exercises
- Administering bronchodilators
- Assessing tracheostomy site
- Assess cardiovascular functions
- Monitoring blood pressure

Semester III

- Measuring apical-radial pulse
- Auscultating for heart sounds
- Controlling epistaxis/nasal packing
- Teaching exercises for cardiac functioning
- Administering cardiovascular and other drugs
- Assessing gastrointestinal function
- Feeding a patient using gastric tube
- Performing gastric lavage
- Giving an enema
- Interpreting laboratory tests results
- Providing colostomy/ileostomy care
- Inserting flatus tube
- Monitoring bowel sounds
- Inserting rectal suppository
- Administering Insulin
- Measuring blood and urine glucose levels
- Teaching patient self-injection, foot care and nutrition
- Collecting specimen for laboratory investigation
- Conducting pre- and post-test counseling
- Conducting a HIV rapid test
- Applying safety precautions in handling blood specimen
- Administering post-exposure prophylaxis (PEP)

Competences

Knowledge	Attitudes/Behaviors	Skills
Identifies components of the nursing process appropriate to individual health care needs	Appreciates the difference between data collection and assessment	Performs physical assessment to identify baseline normal/ abnormal findings
Demonstrates understanding of the diversity of the human condition	Values the inherent worth and uniqueness of individuals and populations	Plans appropriate care for clients and establishes priorities
Understands the concept of accountability for own nursing practice	Shows commitment to provision of high-quality, safe and effective patient care	Safely performs learned skills to adult clients with medical and surgical conditions
Understands the principles of teaching and learning	Accepts the role and responsibility for providing health education to patients and families	Identifies client learning needs and formulates a plan for teaching
Understands the principles of effective communication through various means	Accepts responsibility for communicating effectively	Demonstrates effective communication skills in order to obtain data for client assessment and share pertinent information
Demonstrates knowledge of basic scientific methods and processes regarding the administration of medicines	Appreciates the strength of scientific bases for practice	Correctly and accurately administers medications
Integrates objective data with knowledge gained from an assessment of the subjective experiences of the patient and his/her family	Values the nursing process as a means of identifying and meeting individualized needs of the client and his/her family	Documents appropriate information regarding the health status of medical-surgical patients according to school/agency policies
Identifies contributions of other individuals and groups in helping patients and families achieve health goals	Respects the centrality of the patient and family as core members of the health care team	Incorporates other health care members or family into client care

Assessment:

- Written exams
- Logbook
- Care plans
- Group presentations
- Quizzes

Teaching/Learning Strategies:

- Lectures
- Case studies
- Concept mappings
- Homework assignments
- Group problem-solving

Course Expectations:

The student is expected to:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

References:

Brunner and Studdarth, *Textbook of Medical-Surgical Nursing*, 7th edition

Lippincott Williams & Wilkins Complete Book Collection

Medical-Surgical Nursing, A Psychophysiologic Approach 3rd edition

Luckmann's Core Principles & Practice of Medical-Surgical Nursing—1996

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Obstetric Maternity Nursing I

Credits:

4

Placement:

First semester of second year (Third Semester)

Duration:

16 weeks (14 instructional and 2 exams)

56 hours classroom

168 hours clinical

Pre-requisites:

Basic Math, Basic English, Fundamentals of Nursing I and 2, Anatomy and Physiology I and 2, Integrated Basic Sciences, Psychology and Sociology, Basic Nutrition, Ethical and Professional Adjustment, Primary Health Concepts

Introduction/Course Description:

This is the first component of a two clinical obstetrical maternity nursing course series. This course provides a foundational understanding of the principles of safe motherhood and basic care to the pregnant and laboring woman and her family. This course also designed to teach the student about reproductive health and Family planning including adolescent sexual and reproductive health so as to prepare the student to provide FP counseling and service including provision of reproductive health care services for adolescent.

Broad Course Objectives:

- Explain the concept of safe motherhood and the millennium development goals
- Describe antenatal factors affecting maternal and newborn mortality and morbidity
- Apply knowledge of anatomical and physiological principles to the nursing care of women during pregnancy
- Apply principles of health assessment to the care of women during pregnancy
- Apply principles of communication, health education and counseling to the care of women and families during pregnancy
- Assess the health of the mother and the fetus through promotion of optimal nutrition throughout pregnancy

Specific Objectives:

Upon completion of this course, the student will be able to:

- Discuss the concept of safe motherhood and the millennium development goals

Semester III

- Describe antenatal factors affecting maternal and newborn mortality and morbidity
- Apply knowledge of anatomical and physiological principles to the care of women throughout pregnancy
- Utilize principles of health assessment in conducting health assessment for women during pregnancy
- Describe the importance promote optimal nutrition throughout pregnancy to support the well-being of the mother and the fetus of communication, health education and counseling to the care of women and families during pregnancy
- Describe important activities involved in caring for antenatal patient.
- Promote optimal nutrition throughout pregnancy to support the well-being of the mother and the fetus
- Recognize and appropriately refer women experiencing prenatal complications
- Describe family and reproductive health concepts
- Identify the disorders of the female and male reproductive system
- Explain the investigations to confirm gynecological conditions
- Describe gynecological procedures and surgical interventions
- Explain reproductive tract infections and infertility
- Discuss harmful practices that impact reproductive health
- Explain basic concepts related to reproductive health, including, adolescent health and identify major reproductive health problems and adolescent health problems.
- Identify major reproductive health problems including adolescent reproductive health problems.
- Identify problems adolescents face in obtaining health services and provide adolescent-friendly health services
- Describe essential factors necessary for the provision of adolescent-friendly health services
- Counsel clients on all methods of family planning using the Balanced Counseling Strategy (BCS) and the WHO Medical Eligibility Criteria (MEC)
- Describe the various methods of Family planning and skills needed in providing all methods of family planning chosen by clients
- Demonstrate skills in administering various methods of Family planning, including. injectable, IUCD and Jadelle

- Describe factors affecting maternal and newborn mortality and morbidity related to birth spacing
- Recognize and appropriately refer women experiencing family planning complications

Content:

Unit 1 | Reproductive Health

1. OVERVIEW OF THE ANATOMY AND PHYSIOLOGY OF THE MALE AND FEMALE REPRODUCTIVE SYSTEMS

2. PHILOSOPHY AND CONCEPTS OF REPRODUCTIVE HEALTH:

- Concept of human sexuality
- Roles of the father, mother, children, significant other in reproductive health
- Health status of women, girl-child education and gender discrimination effects
- Sexual deviations and problems of sexuality
- Family life education, responsibility and safe sex
- Factors that could influence reproductive health:
 - Cultural - norms and values
 - Socio-economical
 - Religious
 - Educational
 - Political, etc.

3. FAMILY AND REPRODUCTIVE HEALTH CONCEPTS:

- Reproductive health:
 - Description
 - Components
 - Definition
 - The role of the nurse

4. REPRODUCTIVE HEALTH OF THE WELL WOMAN:

- Breast health
- Cervical cancer screening
- Exercise
- Nutrition
- Sexuality

- Components:
 - Safe motherhood, including essential neonatal care (EmONC)
 - EmONC signal functions
 - Basic EmONC centers must have:
 - IV/IM antibiotics
 - IV/IM anticonvulsants
 - IV/IM oxytocins /AMTSL
 - Assisted vaginal delivery
 - Manual removal of placenta
 - Removal of retained products of conception/MVA
 - Newborn care and resuscitation of newborn
 - Comprehensive EmONC centers must have:
 - All Basic EmONC Services plus:
 - Cesarean section
 - Blood transfusion
 - Newborn care
 - Family planning information and services
 - Prevention and management of infertility and sexual dysfunction in both men and women
 - Prevention and management of complications of abortion
 - Provision of safe abortion services, where the law so permits
- Adolescent Sexual and Reproductive Health:
 - Description
 - Major sexual and reproductive health problems include the following:
 - Unwanted pregnancies
 - Unsafe abortion
 - Pregnancies spaced too closely
 - STIs, including HIV/AIDS
 - Sexual and domestic violence/exploitation
 - Some couples also suffer from infertility, the inability to conceive a child

Semester III

- Barriers:
 - Fear that their parents will find out
 - Difficulty negotiating condom use with male partners
 - Fear of violence from their partners
 - Concerns about side effects of birth control
 - Peer pressure to engage in sexual intercourse
 - Expectations for women to marry and begin childbearing at an early age
- Characteristic of adolescent-friendly reproductive health services:
 - Assurances of privacy and confidentiality: young people must feel confident that their important and sensitive concerns are not overheard or retold to other persons
 - Accurate, easy-to-understand information
 - Gender-specific information: service specifically for men and for women
 - Information addressing women's less equal power status in many relationships
 - Peer education and outreach
 - Activities to build skills in communication and negotiation
 - Involvement by youth in program design and operation
 - Free or affordable services
 - Easy and confidential registration, and short waits
 - Consultation with or without an appointment
 - Treating adolescents with equal care and respect as other clients
 - Encourage community and parental support
 - Allowing young couples to come to the clinic together to seek services and be counseled
 - Publicity so that adolescents know what services are offered at the clinic and must be aware that they will be treated respectfully and confidentially

5. FAMILY PLANNING TECHNOLOGY:

- History of family planning in Liberia
- Importance of family planning
- Family planning compliance with statutory and policy requirements:
 - Voluntarism
 - Informed choice

- Tiaht Amendment:
 - Spacing children improves health of mother and children
 - Problems caused by lack of family planning
 - Healthy timing and spacing of pregnancy (HTSP)
 - Key messages
- The role of health/family planning education
- Family planning counseling
- Balanced Counseling Strategy
- WHO Medical Eligibility Criteria (MEC)
- Methods of family planning: description, mechanism of actions, mode of administration, advantages and disadvantage:
 - Fertility Awareness Methods/Natural family planning:
 - Cycle beads
 - LAM
 - Condoms (male)
 - Condoms (female)
 - IUCDs - Postpartum family planning (PPFP) and IUD (PPIUD)
 - Implants/Jadelle
 - Hormonal
 - Emergency contraception
- Surgical methods:
 - Bilateral tubal ligation
 - Vasectomy
 - Safe abortion
 - Complications
 - Postabortion care

6. DISORDERS OF THE REPRODUCTIVE SYSTEM:

- Disorders of the female reproductive system:
 - Review of anatomy and physiology of female reproductive system
 - Review of menstrual cycle

Semester III

- Congenital abnormalities – imperforate vagina/hymen bicornuate uterus and hermaphrodite
- Disturbances of menstruation, menopause, etc.
- Vulva; inflammation, cyst, tumor, varicose veins
- Vagina: inflammation, abnormalities, vesicovaginal and rectovaginal fistula
- Cervix: inflammation, polyps, irritation, erosion, cancer
- Uterus: abnormality, endometritis, endometriosis, fibroids, cancers
- Fallopian tubes: inflammation, abnormalities – long and short tube; cul-de-sac in the tube, absence, ectopic pregnancy, salpingitis, etc.
- Ovaries: inflammation, cyst, cancer
- Pelvic floor: displacement – uterine cystocele, rectocele and prolapse
- Pelvic cavity: pelvic inflammatory diseases, etc.
- Breast: inflammation, abnormalities, engorgement and cancer
- Breast self-examination (BSE)

7. OTHER PROBLEMS AFFECTING WOMEN'S HEALTH:

- Dysmenorrhea
- Menorrhagia
- Metrorrhagia
- Amenorrhea
- Endometrial carcinoma
- Cervical carcinoma
- Breast cancer
- Disorders of the male reproductive system:
 - Undescended testis
 - Hypospadias
 - Epispadias
 - Oligospermia
 - Azospermia
 - Hermaphrodite

- Investigations, procedures and surgical interventions for disorders:
 - Gynecological positions and procedures
 - Examination and diagnostic investigations – swabs, pap smear, ultrasonography abdominal, transvaginal, etc.
 - Interpretation of radiological and laboratory results
 - Surgical procedures – dilation and curettage, hysterotomy, myomectomy, hysterectomy, salpingectomy, oophorectomy, mastectomy, etc.
 - Role of the nurse in the care of client undergoing surgical procedures

8. REPRODUCTIVE TRACT INFECTION AND INFERTILITY

9. SEXUALLY TRANSMITTED INFECTIONS – MALE AND FEMALE:

- STI information and counseling; male and female
- Comprehensive syndromic STI case management with the seven syndromes identified in the WHO protocol
- Prevention and control of STI among adolescents and young adults

10. HIV INFECTION AND ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS):

- Prevalence of HIV/AIDS – global, national
- Prevention of HIV infection including ABCD of prevention, prevention of mother-to-child transmission (PMTCT), universal precaution and post exposure prophylaxis (PEP)
- Burden of the disease on the individual, family and community
- Opportunistic infections
- Overview on national counseling technique (CT)/guidelines
- HIV counseling and testing

11. MANAGEMENT OF HIV INFECTION:

- Drug therapy – antiretroviral drugs
- Nutrition and family support
- Support groups
- Stigmatization of PLWHA

Semester III

12. INFERTILITY:

- Causes: male and female
- Prevention and management
- Sexual dysfunctions: prevention and management in male and female

13. ISSUES IN REPRODUCTIVE HEALTH:

- Complications of unsafe abortion
- Postabortion care

14. CUSTOMS AND TRADITIONS AFFECTING THE HEALTH OF REPRODUCTIVE WOMEN:

- Religious beliefs
- Cultural practices
- Tribes and taboos
- Ethnicity in Liberia

15. HARMFUL TRADITIONAL PRACTICES:

- Definition and types (female genital mutilation, premature marriage, forced marriage)
- Consequences of harmful practices
- Female genital mutilation (FGM)
- Types
- Effects on pregnancy, labor and delivery
- Strategies for elimination
- Domestic and sexual violence against women and men.

Unit II | Safe Motherhood

1. SAFE MOTHERHOOD AND THE MILLENNIUM DEVELOPMENT GOALS (MDGS):

- Safe motherhood and the Millennium Development Goals (MDGs)
- Millennium Development Goals (MDGs) (4 & 5)
- Calculating perinatal statistics

- International midwifery competencies and practice standards
- Regional midwifery competencies and practice standards

2. MATERNAL MORTALITY:

- Significance of the problem
- Present rate in Liberia
- Contributing factors:
 - Three delays
 - Delay in deciding to seek care:
 - Failure to recognize complications
 - Acceptance of maternal death
 - Low status of women
 - Socio-cultural barriers to seeking care
 - Delay in reaching care:
 - Poor roads, infrastructure, transport means, poor organization
 - Delay in receiving care:
 - Inadequate facilities, supplies, personnel
 - Poor training of personnel
 - Lack of trained medical personnel
 - Lack of transportation
 - TTMs not adequately trained as to when to refer
 - Poverty
 - Others

3. HISTORY OF MATERNITY CARE IN LIBERIA

4. MATERNAL HEALTH IN LIBERIA

5. A GLOBAL PERSPECTIVE ON OBSTETRICAL NURSING

6. THE ROLE OF THE OBSTETRICAL NURSE

7. DIRECT AND INDIRECT CAUSES OF MATERNAL MORBIDITY/MORTALITY:

- Hemorrhage

Semester III

- Infections
- Pre-eclampsia/eclampsia
- Social cultural

8. MATERNAL AND INFANT MORTALITY RATE:INFANT MORTALITY RATE:

- Maternal-infant
- Morbidity rate
- Birth rate
- Fertility rate
- Perinatal mortality rate

Unit II | Application of Reproductive Anatomy and Physiology to Antenatal Care

1. PREGNANCY AND BODY CHANGES IN PREGNANCY:

- Reproductive organs
- Cardiovascular
- Respiratory
- Renal
- Gastrointestinal
- Musculoskeletal
- Neurological
- Psychosexual

2. PHYSIOLOGY OF CONCEPTION

3. FETAL DEVELOPMENT/CIRCULATION

4. PLACENTAL DEVELOPMENT

Unit III | Basic Obstetrical Nursing Principles

1. APPLYING THE NURSING CARE PROCESS TO THE PREGNANT WOMAN:

- Supporting pregnancy as a physiologic process
- The importance of preconception care
- Screening for complications
- The importance of antenatal care
- Common terminology used in obstetrical care

Unit IV | Maternity Care in the First Trimester

1. FOCUSED ANTENATAL CARE:

- Diagnosis of pregnancy
- Estimating gestational age
- Initial prenatal history
- Physical assessment and findings
- Initial prenatal physical examination
- Laboratory testing
- Education and counseling of woman and family
- Nutritional guidance
- Managing common and minor discomforts

2. PREVENTING, SCREENING FOR AND MANAGING ACUTE AND CHRONIC DISEASES AFFECTING PREGNANCY:

- Hypertension
- Diabetes
- TB
- PMTCT:
 - Definition
 - Mother-to-child transmission of HIV (MTCT)

Semester III

- Risk of MTCT during pregnancy, labor and delivery, and breastfeeding
- Ways to reduce risk of MTCT:
- Use of antiretroviral medicines for mother and infant
- Condom use (male and female):
 - How to use a male and female condom using models
- Women's nutrition and supplementation (multivitamin, iron/folate)
- Counseling and testing services:
- Prophylaxis or ARV treatment (if available and indicated or referral)
- Malaria in Pregnancy:
 - Three elements of WHO malaria prevention and control in pregnancy:
 - Use of insecticide-treated nets (LLTNs)
 - Intermittent preventive treatment (IPTp) WHO malaria in pregnancy (MIP) strategy:
 - Treatment regimen- Case management of women with symptoms and signs of malaria
 - Prevention of Malaria in:
 - LLTNs
 - IPTp:
 - The use of sulfadoxine-pyrimethamine (SP) for IPTp, including dosage, timing and contraindications
 - The first IPTp-SP dose should be administered as early as possible during the 2nd trimester of gestation (after quickening)
 - Each SP dose should be given at least 1 month apart
 - The last dose of IPTp with SP can be administered up to the time of delivery, without safety concerns
 - IPTp should ideally be administered as directly observed therapy (DOT)
 - SP can be given either on an empty stomach or with food
 - Folic acid at a daily dose equal or above 5 mg should not be given together with SP as this counteracts its efficacy as an antimalarial
 - SP should not be administered to women receiving cotrimoxazole prophylaxis
 - Dispelling myths
 - IPTp with SP can be taken on an empty stomach or after food
 - IPTp with SP is safe up until delivery

- Contraindications of SP
- Treatment regimen:
 - Uncomplicated malaria in pregnant women
 - Signs and symptoms:
 - Fever
 - Shivering/chills/rigors
 - Headaches
 - Muscle/joint pains
 - Nausea/vomiting
 - False labor pains
 - Severe malaria in pregnant women:
 - Signs and symptoms:
 - Signs of uncomplicated malaria PLUS one or more of the following:
 - Confusion/drowsiness/coma
 - Fast breathing, breathlessness, dyspnea
 - Vomiting every meal/unable to eat
 - Pale inner eyelids, inside of mouth, tongue, and palms
 - Jaundice
- Case management of MIP:
 - The goal of malaria treatment during pregnancy:
 - To completely eliminate the infection because any amount of parasites in the blood can affect the mother or fetus
- Determine severity
- Uncomplicated: Manage according to local protocol
- Severe:
 - Refer immediately to higher level of care
 - Consider giving pre-referral treatment or first dose of antimalarial if available and provider is familiar with its use
- Selection treatment is based on:
 - The gestational age of the pregnancy
 - Availability of approved drugs

Semester III

- Treatment of uncomplicated malaria:
 - For second and third trimesters, ACTs should be the first-line treatment if available and in line with local protocol
 - For uncomplicated malaria in the 1st trimester and for severe malaria in any trimester, quinine is the drug of choice
 - First trimester:
 - Quinine 10 mg salt/kg body weight three times daily + clindamycin 10 mg/kg body weight twice daily for 7 days
 - If clindamycin is not available, use quinine only
 - ACT can be used if it is the only effective treatment available
 - Second and third trimester:
 - Use the ACT known to be effective in the country/region
 - Artesunate and Amodiaquine
 - Artemether-Lumefantrine
 - Dihydroartemisinin-Piperaquine
 - OR
 - Artesunate + clindamycin (10 mg/kg body weight twice daily) for 7 days, OR
 - Quinine + clindamycin for 7 days
- Treatment for Complicated/Severe Malaria:
- Stabilized and referral to higher level if not at that level
- Management of Convulsions or Fits:
 - Determining causes of convulsions - malaria or eclampsia
 - Management according to determination
- Severe malaria: pre-referral treatment:
 - Full dose of parenteral anti-malarials
- First trimester:
 - Quinine is the drug of choice, but in its absence artemether may be used
- Second and third trimesters:
 - IM or IV artesunate is the first and artemether the second option
 - Rectal administration of artesunate or artemether may be given if injections are not possible

- Referral:
 - Preparation
 - Note
 - Accompany
- Pharmacovigilance/adverse drug reaction monitoring:
 - SP
 - Artesunate and Amodiaquine
 - Artemether/Lumefantrine
 - Quinine
- Reporting:
 - When, where, how
- Adherence counseling:
 - Why
 - Steps:
 - Ideally, show a sample packet of the medicine to the client
 - Ask the client what she knows about the medicine and how it works
 - Remind the client that malaria is a serious disease
 - Ask what she knows about the effects of MIP

3. SCREENING FOR EARLY AND LATE PREGNANCY COMPLICATIONS AND HIGH RISK CONDITIONS:

- Spontaneous abortion
- Hyperemesis
- Premature labor
- Fetal growth restriction
- Pre-eclampsia
- Macrosomia
- Postdates pregnancy
- Placenta previa
- Abruptio placentae

4. DOCUMENTATION OF CARE

Unit V | Maternity Care during the Second and Third Trimester

1. THE INTERM PRENATAL HISTORY

2. PHYSICAL ASSESMENT FINDINGS AND CARE:

- Fundal height
- Fetal position and presentation
- Fetal heart rate
- Cervical dilation and effacement
- Extremities
- Blood pressure
- Routine medications and vaccine (iron folate, multivitamin, mebendazole, TT)
- Routine lab

3. DOCUMENTATION OF FINDINGS AND CARE

Clinical Practice: Obstetric Maternity Nursing I

Clinical Course Description:

This course is designed to equip the capacity of the learner to prevent preconception and prenatal exposures to environmental hazards and to promote prevention-oriented policies in sexual reproductive health.

Clinical Objectives:

- Apply newly acquired knowledge, attitudes, and skills when diagnosing and treating patients of all ages for reproductive and sexual health conditions
- Translate and integrate evidence-based reproductive and sexual health research into their clinical setting
- Apply effective communication and counseling skills on reproductive and sexual health conditions and treatment options
- Integrate an awareness of current social, political, and legal issues affecting reproductive and sexual health care into clinical practice

Clinical Placement:

- Obstetric ward
- Female ward
- Community Health Department
- Sexual and reproductive health clinic
- Outpatient clinic

Clinical Skills:

- Assessment using the nursing process
- Documentation
- Health assessment
- Counseling

Resources:

- Female pelvic anatomy
- The sexual response cycle
- Neurobiologic etiology of sexual problems

Semester III

Competencies

Knowledge	Attitudes/Behaviors	Skills
Identifies human factors and basic sexual and reproductive health policies and guidelines	Recognizes the SRHR of individuals, families and communities Designs acceptable health education strategies for promotion of SRHR	Demonstrates effective use of policies and guidelines for better SRHR Encourages the respect of SRHR among groups Uses all appropriate strategies to assist individuals, families and communities for positive SRHR
Describes benefits and limitations of policies and guidelines on SRHR	Recognizes resistance to aspects of SRHR from individuals, families and communities	Demonstrates effective use of strategies for individuals, families and communities in overcoming resistance
Discusses effective strategies to enhance health promotion, prevent disease and assist recovery following SRHR diseases	Recognizes that individuals, families and communities are vulnerable to SRHR health diseases Recognizes that the diseases processes have serious health implications to reproduction Recognizes that socio-cultural, economic, spiritual and psychosocial forces have a bearing on SRHR diseases	Uses acceptable norms to discuss vulnerability and implications Participates in the health team in caring for SRHR diseases Demonstrates extra care of client by in-depth interviewing and identification of associating factors to the cause of disease
Describes possible avenues for curbing SRHR diseases Describes how individuals, families, communities and health care team can contribute to promoting SRHR	Recognizes the complexity and sensitivity of nursing care of SRHR diseases	Uses positive areas of policies and guidelines for educating individuals, families and communities for better SRHR Utilizes available data (positive and negative) to assist stakeholders make informed decisions on SRHR

Teaching/Learning Strategies:

- Classroom presentations
- Case studies
- Role plays
- Group exercises
- Educational games
- Demonstration and returned demonstration
- Coaching

- Feedback
- Homework and laboratory assignments

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Complete all clinical hours
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class, laboratory and clinical practicum
- Complete all assignments and examinations on due dates

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

References:

Maternal & child health nursing. Adele Pillitteri , 4th 2003 Elsevier's Inc.

Foundation of maternal newborn nursing Sharon Smith Murray 3rd 2006 Elsevier's Inc.

Maternal newborn and child Health Nursing; Marcia L. London 2003 Person's education Inc. upper saddle river New Jersey 07458

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Maternity Nursing Lowdermilk, Perry 7th 2003 Mosby Inc.

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Exploration in Women Health. Nora L.Howley, 2nd, 2006, Elseviers Inc.

Maternity Nursing: Family, Newborn and Women's Health. Ott Reeder, Sharon and Martin, Leonide. 19th Ed 2005 Philadelphia. Lippincott

Olds' Maternal-Newborn Nursing & Women's Health, 8th Ed., M. Davidson, M. London, P. Ladewig, 2008.

WHO Draft Sexual and Reproductive Health Competencies, 2009.

Semester IV | Course Outline

Teaching in Nursing

Psychiatric Mental Health Nursing I

Medical Surgical Nursing II

Obstetric Maternity Nursing II

Pediatric Nursing I

Course Title: Teaching in Nursing

Credits:

3

Placement:

Second semester of second year (Semester 4)

Duration:

16 weeks (14 instructional and 2 exams)

42 hours classroom

126 hours practicum

Introduction/Course Description:

This course, in preparing the student to be an educator, exposes the student to the principles and techniques of teaching and learning and its application to teaching nursing. It also enlightens the student on the challenges, approaches and various dynamics of teaching and learning. This course highlights the essentials of planning, preparation, facilitation of health care delivery skills, interactive learning, use of multimedia for learning and student assessment. This course is also designed to show the relationship between student education and health education and the use of common principles in promoting learning of both students and patients. This course is also designed equip the students with knowledge and skills in patient education and to show the relationship between student education and patient education and the use of common principles in promoting learning of both students and patients.

General Objectives:

By the end of this course, students will be able to:

- Adopt, practice and demonstrate skills and principles of effective teaching and learning for students and patients by being able to:
 - Describe the foundations of educating health care providers
 - Utilize effective approaches to teaching and learning
 - Develop learning objectives
 - Create a positive learning environment
 - Effectively plan for teaching
 - Deliver interactive presentations
 - Facilitate the development of health care delivery skills
 - Prepare for and use knowledge and skills assessments

Semester IV

Specific Objectives:

By the end of this course, the student will be able to:

- Identify the challenges in educating health care providers
- Describe characteristic of an effective teacher
- Describe the concept of competency-based training
- Describe a variety of competency-based training approaches
- Describe the theories that support competency-based training
- Identify and discuss the various characteristics of adult learning
- Explain the basic principles of adult learning
- Describe the three learning domains
- Identify and organize the component of a correctly written learning objectives
- Develop learning objectives
- Describe how to create a positive learning environment
- Describe the three major learning styles
- List and discuss factors contributing to successful teaching
- Describe the main components of a clinical skills course
- Discuss the various strategies of teaching utilized in the classroom and clinical setting
- Demonstrate the use of learning technology and use of visual aids to promote learning
- Describe basic techniques for interactive presentation
- Outline the basic steps in the teacher and learning process
- Describe the process of developing competency in classroom and clinical setting
- Describe tips for developing knowledge, skills and attitudes in learners
- Describe the process for teaching psychomotor, clinical decision-making and communication skills
- Summarize important task for the teaching in teaching a clinical skills course in the class room and health facility
- Describe important factors to consider when teaching in clinical setting

- List and explain the four dimensions of assessment
- Apply the concepts of measurement and evaluation to the formative and summative assessment of students
- Select methods for assessing the knowledge and skills of students
- Demonstrate the use of the various methods used in assessing knowledge and skills of students
- Construct high-quality test items designed to measure basic knowledge and clinical decision-making skills
- Examine the opportunities and challenges associated with construction items such as portfolios, essays and oral exams
- Develop a plan for ensuring that instructional objectives are tied to assessment measures
- Analyze items using readily available and simple statistical methods
- Develop OSCE stations for assessment of student core competencies in participating teaching institutions
- Discuss the concept of clinical teaching at the bedside
- Outline basic rules for bedside teaching
- Describe and use effective instructional strategies use for bedside teaching
- Describe and apply the five “microskills” used in a clinical teaching session
- Discuss the approaches and plans of health education
- Discuss and demonstrate an interactive process for conducting health education

Course Content:

Unit I

1. FOUNDATIONS FOR EDUCATING HEALTH CARE PROVIDERS

2. TEACHING AND LEARNING THEORIES:

- Factors needed for effective teaching and learning
- Challenges in educating health care providers
- Effective approaches to effective teaching and learning
- Competency-based training/learning:
 - Demonstrating the skills
 - Building competency in learners
 - Providing practice and feedback
 - Assessing competency
- Competency based theories:
 - Adult learning theory
 - Humanistic learning theory
 - Apprenticeship theory
- Participatory learning:
 - Deep learning
 - Experiential learning
 - Problem based learning
 - Mastery learning
 - Lifelong learning

3. CHARACTERISTICS OF THE ADULT LEARNER:

- Common characteristics:
 - Self-directed
 - Lifetime of experiences
 - Continuum of adult developmental task
 - Life problems
- Effects of illness on adult learning characteristics

4. FACTORS CONTRIBUTING TO SUCCESSFUL TEACHING:

- Relevance
- Motivation
- Active participation
- Learning environment
- Practice and review
- Expectations
- Time and timing

5. THREE LEARNING STYLES:

- Visual
- Auditory
- Kinesthetic

Unit II | Basic Steps in the Teaching-Learning Process

1. LESSON PLANNING:

- Developing goals and objectives
- Selecting instructional strategies:
 - Individual or group teaching
 - Interactive presentation
 - Panel discussion
 - Role play
 - Study trip
 - Lecture/discussion
 - Use of audiovisual materials
 - Use of printed materials

2. CLASSROOM MANAGEMENT

Semester IV

3. PARTS OF A LESSON/SESSION/PRESENTATION PLAN:

- Objectives
- Teaching strategies
- Implantation:
 - Introduction
 - Main points/questions
 - Summary
 - Assessment

4. THE FACILITATION PROCESS:

- Introduction:
 - Clear
 - Share learning objectives
- Facilitate:
 - Use questions
 - Use audiovisual equipment
 - Provide feedback
 - Assess understanding
- Summarize:
 - Effectively
 - Creatively

Unit III | Developing Educational Goals and Objectives

- Definition:
 - Goal
 - Objective
- Role of objectives in teaching
- Three learning domains:
 - Knowledge/cognitive

- Skills/psychomotor
- Attitude/affective
- The 2 levels of objectives
- Course objectives:
 - 4 parts of a course objective:
 - **When** to demonstrate the knowledge or perform the skill and conditions under which behavior will take place (After completing this course).
 - **Who** will demonstrate competency (the student).
 - **What** will be demonstrated or perform or Actual behavior learner exhibits(action verbs – assist, administer, insert).
 - **How** will success be measure or Specific criteria used to measure success
- Supporting objective/specific objective/instructional objective:
 - 2 parts of a supporting objective:
 - Specific action to be taken (see action verbs in Table 2-1)
 - Object of the action (the specific content the students are expected to know or demonstrate)

Unit IV | Clinical Skills Course

- Strategies for Teaching a clinical skills course:
 - Components of a clinical skills course
 - Factors to consider
 - Key task of the teacher in a clinical skills course
 - Types of teaching strategies:
 - Brainstorming
 - Case study
 - Clinical simulation
 - Demonstration/return demonstration
 - Discussion
 - Facilitated practice
 - Game
 - Guest speaker
 - Individual or group teaching

Semester IV

- Interactive presentation
- Panel discussion
- Role play
- Study trip
- Lecture
- Lecture/discussion
- Audiovisual material
- Use of printed material

Unit V | Student Performance Assessment

- Four dimensions of assessment:
 - Biophysical
 - Psychological
 - Sociocultural
 - Environmental
- Types of assessments:
 - Formative/short-term evaluation techniques
 - Summative/long-term evaluation techniques
 - Concepts of measurement, evaluation, validity, and reliability
- Factor in selecting types of assessment
- Assessment methods:
 - Drills, quizzes, and practice tests
 - Written exercises
 - Case studies
 - Project reports
 - Essay examinations
 - Objective written examinations
 - Oral examination
 - Clinical rounds
 - Direct observation

- Structured feedback reports
- Logbooks (casebooks), learning journals, and care plans
- Structured practical examinations
- Test Construction:
 - Basic steps for developing a test aligned to the course
 - Objective Structured Practical Exam (OSCE)

Unit VI | Concept of Clinical Teaching at the Bedside

- Description of bedside teaching
- Goal of bedside teaching
- Basic rules for bedside teaching
- Effective instructional strategies:
 - Observation and feedback
 - Conscious role modeling
 - SNAPPS approach
 - OMT: One Minute Teacher (preceptor)

Unit VII | Health Education, SBCC & IEC

1. DEFINITION/DESCRIPTION AND GOAL

2. HEALTH EDUCATION

3. HEALTH INFORMATION SHARING

4. SOCIAL AND BEHAVIOR CHANGE COMMUNICATION (SBCC)

5. INFORMATION EDUCATION AND COMMUNICATION (IEC)

6. THE PURPOSE/AIMS OF HEALTH EDUCATION/SBCC/IEC:

- To make people value good health
- To teach them what to do in order to have good health
- To encourage people in the community to develop and use health services
- To encourage community effort and action in order to have a healthy community

Semester IV

7. RESULTS OF HEALTH EDUCATION/SBCC/IEC ACTIVITIES ARE FOR THE POPULATION TO:

- Acquire (learn and understand) basic health information
- Examine attitudes and values about health and illness
- Acquire new and/or improved healthful skills
- Obtain needed resources for improving health

8. BASIC STEPS IN CONDUCTING A HEALTH EDUCATION/SBCC/IEC SESSION:

- Plan and prepare:
 - Choose topic or problem to be addressed
 - Note important points for presentation and questions to be asked
 - Prepare discussion started- a song, picture, drama story that shows a problem common to the people
 - Gather all materials/supplies needed
- Conduct the health education session:
 - Greet and introduce self
 - Present discussion starter
 - Ask opened ended questions about discussion started
 - Asked open ended questions about the problem presented in real life
 - Add new information
 - Summarize important points
 - Check patient(s) understanding
 - Thank patient(s) and closed session
 - Evaluate the health education session

9. ACTIVITIES AND PLANS FOR HEALTH EDUCATION/PROGRAMS:

- Selecting health educators
- Planning and training for health education programs
- Learning and working with the community
- Examinations and evaluations as a learning process

Teaching Practicum Description

The primary goal of the teaching practicum is to provide the learner with teaching experience within a classroom setting. The students receive instruction and feedback from faculty supervisors who are responsible for the courses in which the practical take place. Students' practical will vary in the extent to which emphasis is placed on instructional time, course development (e.g., preparation of syllabus, assignments, and bibliography), assignment grading, and other curriculum review and planning issues and tasks.

Objectives:

At the end of the practicum, the student will be able to:

- Prepare teaching plans
- Teach patients or students using appropriate teaching plans
- Develop educational goals and objectives for each of the three domains
- Assess learning outcome after teaching

Practical Placement:

- Classroom
- Outpatient department

Competencies

Knowledge	Attitudes/Behavior	Skills
Identifies differences in auditory, visual, and tactile learning styles	Accepts the role and responsibility for providing health education to patients and families	Incorporates facts, values, and skills into teaching plan
Understands the principles of teaching and learning		Assists patients and families in accessing and interpreting health information and identifying healthy lifestyle behaviors
Is aware of the three domains of learning: cognitive, affective, and psychomotor	Values the need for teaching in all three domains of learning	Provides relevant and sensitive health education information and advice to patients and families
Understands the concept of health literacy	Values the patient's and family's right to know the reason for chosen interventions	Participates in cooperative learning
		Discusses clinical decisions with patients and families
		Evaluates patient and family learning

Teaching and Learning Strategies:

- Lectures
- Discussions including small groups
- Problem-based learning
- Case studies
- Seminar presentations
- Role plays
- Classroom presentations
- Discussion
- Group exercises
- Educational games
- Case studies
- Demonstration
- Coaching
- Homework and practice teaching

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

References:

Teaching in Nursing, Diane Billings and Judith Halstead, 2008.

Principles and Methods of Health Education in Africa, Miriam Jatan.

Effective Teaching: A Guide for Educating Healthcare Providers, USAID, Jhpiego and WHO, 2005.

Clinical Teaching skills Course: Jhpiego, 2011.

Course Title: Psychiatric Mental Health I

Credits:

3

Placement:

Second semester, second year (fourth Semester)

Duration:

16 weeks (14 instructional weeks and 2 exams exams)

42 hours classroom

42 hours clinical

Course Description:

This is the first part of a two part psychiatric nursing course. This portion will orient the student to the development and characteristics of normal mental health and the characteristics and treatment of mental illnesses. Concepts of mental health promotion, maintenance, restoration and rehabilitation are explored. Mental health care policies, ethical considerations, and social justice are emphasized. The course also addresses concepts and principles of community mental health nursing that promote holistic health of diverse communities. Also included is the diagnosis and treatment of alcohol and substance abuse, as well as basic information about SGBV that would prepare nurses to identify and manage the physical, psychosocial and sexual consequences stemming from SGBV.

Broad Objectives:

At the end of this course, the student will be able to:

- Discuss concepts of mental health and mental illness
- Implement activities for promoting the mental health of individuals, family and community across the lifespan
- Understand the effects of cultural orientation on mental illness
- Prescribe a variety of treatment/management modalities to appropriately manage individuals, families and communities with mental health/psychiatric needs
- Demonstrate interpersonal skills, attitudes, self-awareness and therapeutic use of self in engaging clients across the lifespan
- Collaborate with the multidisciplinary team and multi-sectoral agencies in providing care to individuals, family and community with mental health needs
- Provide leadership in promoting mental health service delivery in accordance with country-specific legal, ethical and professional frameworks
- Manage a patient with substance abuse

- Understand the situation of SGBV and how to manage SGBV cases

Specific Objectives:

By the end of this course, the student will be able to:

- Define mental health and mental illness
- Identify the role of the nurse in the promotion of mental health
- Discuss the history of mental health in Liberia
- Describe normal stages of mental growth during the human life cycle
- Describe the three stages of personality development and the levels of thought
- List two biological factors in personality development
- List three culture factors in personality development
- Describe the influence of the family and community on the mental health of the individual
- Define verbal and non-verbal communication
- List five elements which promote communication
- List three barriers to effective communication
- Conduct a mental health interview according to guidelines
- Describe the methods of therapeutic communication
- Define stress and anxiety
- List four physical symptoms of stress and anxiety
- List four ways a person can effectively deal with stress
- List four ineffective ways for dealing with stress
- Differentiate between anxiety and fear
- Describe three nursing measures used in dealing with an anxious person
- Define defense mechanisms
- Describe seven most common defense mechanisms
- Discuss and analyze a mental health case report
- Describe the environmental factors that foster mental illnesses

Semester IV

- Describe the signs and symptoms of mental illness
- Demonstrate how to interview and examine patients
- Utilize the nursing process and DSM IV-TR multi-axial diagnosis in identifying clients with psychiatric/mental health problems in a variety of settings.
- Assess mental illness and record findings
- Describe how to give initial treatment to a mentally ill person
- Refer patients who cannot be managed to an appropriate agency
- Discuss the safety measures in handling a mentally ill patient
- Discuss common substance abuse in Liberia
- Describe the signs and symptoms of substance abuse
- Demonstrate how to take a medical history and examine a patient with alcohol abuse problems
- Describe the signs of acute alcohol intoxication and chronic alcoholism
- Counsel two families with members on drugs/alcohol
- Discuss the treatment for substance abuse of the individual and the community
- Describe the common traditional methods used to treat mental illness
- Describe the situation of sexual gender-based violence noting legal and ethical, psychosocial and sexual issues of SGBV
- Manage care of survivors, including examination, take history, collecting forensic evidence and perform the physical and genital examination
- Describes the different treatments to be prescribed and follow-up care of the survivor

Course Content:

Unit I | Introduction to Psychiatric/Mental Health Nursing

1. TRENDS AND ISSUES IN MENTAL HEALTH

2. LEGAL AND PROFESSIONAL ASPECTS OF MENTAL HEALTH IN LIBERIA

3. CHARACTERISTICS OF MENTAL HEALTH AND MENTAL ILL-HEALTH

4. CONTEMPORARY ISSUES IN PSYCHIATRIC-MENTAL HEALTH NURSING:

- Contemporary Psychiatric-Mental Health Nursing issues:
 - Historical aspects
 - Influence on conceptual models
- Theories and theorists
- Policies of mental health:
 - WHO
 - National
- Psychiatric nursing as a specialty
- Practice settings

5. MENTAL HEALTH/MENTAL ILLNESS CONCEPTS:

- Historical overview of psychiatric care
- Mental health
- Mental Illness
- Psychological adaption to stress:
 - Anxiety
 - Grief
- Mental health/mental illness continuum
- DSM-IV-TR Multiaxial evaluation system

6. NORMAL STAGES OF MENTAL GROWTH:

- Intra-uterine growth
- 1–3 years
- 3–6 years

Semester IV

- 6–12 years, age of socialization.
- Adolescence
- The young adult and parenthood
- The middle years and old age

7. THEORIES OF PERSONALITY DEVELOPMENT:

- Psychoanalytic theory:
 - Structure of theory
 - Dynamics of personality
 - Freudian stages of personality development
 - Interpersonal theory (Sullivan)
 - Psychosocial developmental theory (Erikson)
 - Theory of object relations
 - Cognitive development theory
 - Theory of moral development

8. STAGES OF PERSONALITY DEVELOPMENT:

- Id
- Ego
- Superego

9. LEVELS OF THOUGHT:

- Conscious
- Subconscious
- Unconscious

10. EIGHT MOST COMMON DEFENSE MECHANISMS:

- Denial
- Repression
- Displacement
- Projection

- Regression
- Conversion reaction
- Compensation
- Rationalization

11. STRESS AND ANXIETY

12. DEFINITION OF STRESS AND ANXIETY

13. CAUSES OF STRESS AND ANXIETY

14. SYMPTOMS OF STRESS AND ANXIETY

15. EFFECTIVE WAYS FOR DEALING WITH STRESS

16. INEFFECTIVE WAYS FOR DEALING WITH STRESS

17. NURSING INTERVENTION OF STRESS AND ANXIETY

Unit II | Mental Health and Mental Illness

1. MENTAL HEALTH:

- Definition
- Maslow's hierarchy of needs
- Jahoda's six indicators of mental health
- Classification of mental health

2. MENTAL ILLNESS:

- Definition
- Universal concepts:
- Incomprehensibility
- Cultural relationship
- Cultural aspect of mental illness (D5M-IV-TR APA 2000)
- Psychological adaptation to stress, anxiety, and grief

Semester IV

3. MENTAL HEALTH/MENTAL ILLNESS CONTINUUM:

- The continuum theories
- Characteristics between the mentally healthy and the mentally ill person
- Nursing implications for total mental health/mental illness spectrum
- The DSM evaluation systems

4. PREDISPOSING FACTORS OF MENTAL ILLNESS:

- Genetics—Mental illnesses are more common with a family history
- Traditional beliefs
- Common attitudes

5. ENVIRONMENTAL FACTORS THAT FOSTER MENTAL ILLNESS:

- Physical factors
- Psychological
- Social/culture

6. BIOLOGICAL AND CULTURE FACTORS IN PERSONALITY DEVELOPMENT

7. CULTURAL FACTORS IN PERSONALITY DEVELOPMENT

8. INFLUENCE OF THE FAMILY AND COMMUNITY ON MENTAL HEALTH OF THE INDIVIDUAL

9. SIGNS AND SYMPTOMS MENTAL ILLNESS:

- Unusual change in behavior:
 - Aggression
 - Violent behavior
 - Depression
 - Acute confusion
 - Paranoia
 - Abnormal emotional state
 - Euphoria
 - Elation
 - Anxiety

- Delusions
- Hallucinations
- Illusions
- Sudden loss of speech
- Sudden loss of vision
- Sudden loss of hearing
- Sudden paralysis or loss of sensation in an arm or leg (caution—could be a stroke instead of postpartum depression)

10. OTHER PHYSICAL CONDITIONS:

- Frigidity
- Pseudocyesis
- Amenorrhea
- Dysuria
- Tension headache
- Low back pain

Unit III | Mental Health Assessment

1. ASSESSMENT OF A PATIENT WITH PSYCHIATRIC/MENTAL HEALTH PROBLEMS:

- Therapeutic relationship
- History taking
- Physical assessment (including laboratory findings)
- Mental status assessment
- DSM IV-TR multi-axial diagnosis

2. CLASSIFICATION OF MENTAL DISORDERS:

- Anxiety disorders
- Mood disorders
- Psychotic disorders

Semester IV

- Substance use disorders
- Personality disorders
- Psychiatric disorders common in children and adolescents
- Dementias
- The use of a standardized assessment tool to help
- Includes the patient's history and identify the mental status of the patient

3. TYPES OF ASSESSMENT:

- Mini mental – A brief initial screening with all of the patients
- Ask a few simple questions about their mental health:
 - How have you been feeling recently? I am asking not only about your physical health, but also about your emotions and feelings.
 - Have you been feeling under stress recently? If so, why? How is this affecting your health?
- Full Mental— in-depth mental health assessment for those who seem to have symptoms:
 - Steps:
 - Ask basic introductory questions and look for warning signs
 - Ask questions based on the particular warning signs you perceive
 - Make a preliminary diagnosis
 - Provide counseling based on your diagnosis
 - Types of questions:
 - Do you have any problems sleeping at night?
 - Have you been feeling as if you have lost interest in your usual activities?
 - Have you been feeling sad or unhappy recently?
 - Have you been feeling scared or frightened about anything?
 - Have you been drinking a lot of alcohol recently?
 - Have you lost your appetite recently? If so, why?
 - Has anyone in your family had a similar problem?
 - Physical warning signs of potential mental health problems?
 - Multiple symptoms such as aches and pains in different regions of the body, tiredness, dizziness, sleep problems, palpitations, tingling numbness in the fingers

- A history of complaints of more than three months
- A history of problems at home, such as violence
- Physical symptoms of fear, including fast heartbeat, palpitations, sweating, nightmares
- Anxiety can also cause sensations similar to physical events, such as a heart attack
- What are behavioral signs of potential mental health problems?
- Being extremely withdrawn or not wanting to talk
- Being extremely jumpy, agitated, or frightened
- Complaining of lack of sleep
- Unexplained tiredness
- Incoherent, confused speech
- Strange behavior
- Abnormal dress
- Little facial expression
- Aggressive or violent behavior
- Physical restlessness—people who cannot sit still
- Check the following:
 - **Appearance:** looks, dressing, hygiene and grooming
 - **Speech:** intelligible, clear, mumble, fast
 - **Mood:** Hostile, grandiose, helpless
 - Reality orientation:
 - Time and date
 - Place and location
 - Memory - recent and past

4. INTERVIEW AND EXAMINATION:

- Taking a history of a patient with mental illness

5. COMMUNICATION:

- Definition of communication:
 - Verbal
 - Nonverbal

Semester IV

- Elements of communication:
 - Openness
 - Flexibility
 - Timing
 - Appropriateness
- Barriers to effective communication:
 - Noise
 - Inattentiveness
 - Pain
 - Environmental
 - Condition
 - Language
- Mental health interview:
 - Initial greeting
 - Body of the interview
 - Summary
- Methods of therapeutic communication:
 - Rapport
 - Empathy
 - Sympathy
 - Body language
 - Silence
 - Listening
 - Presence
 - Touch
 - Talking

6. ASSESSMENT AND RECORDING:

- Recording on appropriate forms

Unit IV | Mental Health Interventions

1. THERAPEUTIC NURSING INTERVENTIONS

2. COUNSELING:

- Group therapy
- Management of aggression/violence
- Psychopharmacotherapy
- Milieu therapy
- Occupational therapy

3. MENTAL HEALTH COUNSELING- INTERPERSONAL COUNSELING AND COMMUNICATION (IPCC):

- Kinds of counseling:
 - Supportive counseling:
 - This is aimed at helping the client feel less burdened by what is going on around him or her.
 - Client-centered or person-centered counseling:
 - This aims at listening to the client and working with their goals.
 - Group therapy or group counseling:
 - This is often successful when a group of clients with similar problems feel they would benefit from sharing with others.
- Essential factors:
 - Face to face
 - Confidentiality
 - Non-judgmental, accepting, and caring atmosphere
 - Regular schedule
 - State ground rules and expectations
- KISS- Keep It Short and Simple:
 - Speak slowly but clearly, using simple words
 - Avoid joking and laughing, remember the patient does not feel joy
 - Show empathy and concern

Semester IV

- Respect them if they do not want to talk about it.
- Allow them to cry
- Be careful about physical, even pat on shoulder, etc.
- Trauma counseling can be a very long process.
- When possible, it is often best to have female health workers counsel women and male health workers counsel men
- Steps in the counseling process:
 - Welcome the client, and exchange greetings and introductions
 - Ask the client about the reason for the visit
 - Provide ground rules and confidentiality
 - Assist the clients to discuss their problems, build on their own strengths, and find their own solutions.
 - Allow the client the opportunity to discuss experiences that are difficult and painful.
 - Listen attentively to the client's story.
 - Reflect and encourage the client to resolve issues.
 - Provide closure and discuss the next appointment

Unit V | Measures in Handling Mentally Ill Patient

1. THE NURSING PROCESS:

- Description of the nursing process
- Steps in the nursing process
- Application of nursing process in psychiatrics settings:
 - Legal and ethical issues in psychiatric/mental health nursing
 - Confidentiality
 - Admission and discharge to a psychiatric facility
 - Duty to warn
 - Rights of individuals to receive psychiatric care
 - Informed consent and the right to refuse care
 - Seclusion and restraint

- Advocate for patients

2. THERAPEUTIC APPROACHES (TOOLS) IN PSYCHIATRIC CARE:

- Relationship development
- Role of the psychiatric nurse
- Dynamics of the therapeutic nurse-patient relationship
- Conditions essential to development of a therapeutic relationship
- Rapport
- Trust
- Respect
- Genuineness
- Empathy
- Phases of therapeutic nurse-patient relationship
- The therapeutic self and self-awareness
- Therapeutic communication/clinical interview (Edinburg assessment tools):
 - Definition of communication
 - Communication theory
 - The impact of pre-existing conditions
 - Nonverbal communication
 - Verbal communication
 - Evaluation communication
- Occupational Therapy
- Group therapy:
 - Definition of group therapy
 - Function of a group
 - Types of group
 - Physical conditions of a group
 - Curative factors

Semester IV

- Phase of group development
- Group leadership styles
- Member's roles
- Psychodrama
- The family as a therapeutic group
- The nurse's role in therapeutic group
- Milieu therapy: the therapeutic community:
 - Definition of Milieu
 - Basic assumptions about the therapeutic community
 - Goals of milieu therapy
 - Condition that promotes a therapeutic community
 - The program of therapeutic community IDT
 - The nurse's role in the therapeutic milieu therapy
- Crisis intervention and psychiatric emergencies:
 - Definition of crisis
 - Phase in the development of crisis
 - Types
 - Intervention
 - The nurse's roles
- Relaxation therapy:
 - Stress epidemic
 - Physiologic, cognitive, and behavioral manifestation of relaxation
 - Methods of achieving relaxation
 - The nurse's role in relaxation therapy

3. ASSERTIVE TRAINING:

- Assertive communication
- Basic human rights
- Response patterns

- Behavioral components of assertive behavior
- Techniques that promote assertive behavior
- Thought stopping techniques
- The nurse's roles in assertive training

4. ELECTROCONVULSIVE THERAPY:

- Indicators
- Contraindicators
- Mechanism of action
- Side effects
- Associated risks
- The nurse's role in ECT

5. BEHAVIORAL THERAPY:

- Classical conditioning
- Operant conditioning
- Techniques for modifying patient behavior
- The nurse's role in behavioral therapy

6. REMINISCENCE THERAPY

7. PROBLEM SOLVING

8. ANGER/AGGRESSION MANAGEMENT

9. COMPLEMENTARY THERAPIES

10. MANAGEMENT OF SUICIDAL PATIENT

11. PSYCHOPHARMACOLOGY:

- General information
- Anti-anxiety agents
- Anti-depressant agents
- Anti-manic agents

Semester IV

- Anti-psychotic agents
- Anti-Parkinsonian agents
- Anti-convulsant agents
- Sedatives and hypnotics

12. SAFETY MEASURES IN HANDLING MENTALLY ILL PATIENT

13. TREATMENT OF MENTALLY ILL PERSON:

- Psychotropic medications (clinical):
 - Drugs:
 - Diazepam for a few days for severe anxiety but not depression
 - Fluoxetine (SSRI) for significant depression
- With psychosis see mental health clinician or send to Grant Hospital
- Therapeutic nurse-patient relationship and principles of communication (clinical)
- Psychiatric assessment, mental status exam and psychiatric diagnosis (clinical)
- Cognitive behavioral intervention (here-and-now focus)
- Group intervention
- Community treatment of mental illness
- Emotional support
- Supporting family members
- Occupational therapy
- Recreational therapy:
 - Crisis intervention theory

14. REFERRAL:

- Clinic—if a mental health clinician is assigned
- Health center
- County hospital
- Community mental health clinic
- E. S. Grant Hospital in Paynesville

Unit V | Substance Abuse

1. COMMON SUBSTANCES:

- Alcohol
- Marijuana (grass, stuff)
- Valium (ten-ten)
- Cocaine

2. SIGNS AND SYMPTOMS OF SUBSTANCE ABUSE:

- Weight loss
- Malnutrition
- Decreased awareness of the environment
- Loss of consciousness
- Enlarged and tender liver
- Fluid in the abdomen
- Jaundice
- Inability to work efficiently

3. MEDICAL HISTORY OF ALCOHOLIC PROBLEM:

- History taking
- Screening

4. ALCOHOL AND SUBSTANCE ABUSE – ALCOHOL, DRUGS, RELATED SUBSTANCES

The CAGE Questionnaire Adapted to Include Drugs (CAGE-AID)

CAGE Screen to help identify problem with alcohol or drugs	NO	YES
1. Have you felt you should cut down on your drinking or drug use?	0	1
2. Have people made you vex by criticizing you or lecturing you about your drinking or drug use?	0	1
3. Have you felt bad or sorry or guilty about your drinking or drug use?	0	1
4. Have you ever had a drink or used drugs first thing in the morning to calm your nerves or get over a headache or hangover?	0	1

Source: Modified with use of Liberian English from : J A Ewing "Detecting Alcoholism: The CAGE Questionnaire" *JAMA* 252: 1905-1907, 1984.

Score: ___/4 (2/4 or greater = positive CAGE, further evaluation is indicated)

Semester IV

- Examination
- Recording

5. SIGNS AND SYMPTOMS:

- General symptoms include the following:
 - Inability to stop using the substance
 - Frequently using the substance in dangerous or inappropriate situations (e.g., drinking and driving)
 - The person's social life influenced by the substance abuse
 - Constant craving for the substance and willingness to go to great extremes to get it
- Acute alcoholism:
 - Slurred speech
 - Unsteady gait
 - Changed personality
- Chronic alcoholism:
 - Denial of alcoholism
 - Problems with family, job
 - Poor appetite
 - Weight loss
 - Malnutrition
 - Cirrhosis of the liver

6. TREATMENT OF SUBSTANCE ABUSE:

- Set up environment to reduce danger of patient harming himself
- Group support for alcoholics
- Counseling of family members
- Referral centers

7. TRADITIONAL METHODS USED TO TREAT MENTAL ILLNESS IN LIBERIA:

- Traditional healer

- Prophet or religious healer
- Community treatment of mental illness:
- Community/activity/interview three traditional healers

Unit VI | Sexual Gender Based Violence

1. DEFINITION

2. TYPES OF SEXUAL VIOLENCE:

- Rape and marital rape
- Child sexual abuse, defilement and incest
- Forced sodomy/anal rape
- Attempted rape or attempted forced Sodom/anal rape
- Sexual abuse (e.g., inappropriate touching)
- Sexual exploitation
- Forced prostitution
- Sexual harassment
- Sexual violence as a weapon of war and torture

3. CONSEQUENCES OF SGBV:

- Severe health and psycho-social problems
- Sometimes death
- Potential for debilitating long-term effects of emotional and physical trauma
- Serious and potentially life threatening health outcomes

4. PHYSICAL OUTCOMES:

- Acute physical, chronic and reproductive outcomes:
 - Injury
 - Shock
 - Disease
 - Infection

Semester IV

- Maternal mortality
- Infant mortality - disability
- Somatic complaints
- Chronic infections
- Gastrointestinal problems
- Eating disorders
- Sleep disorders
- Alcohol/drug abuse
- Miscarriage
- Unwanted pregnancy
- Unsafe abortion
- STIs, including HIV/AIDS
- Menstruation disorders
- Pregnancy complication
- Gynecological disorders
- Sexual disorders

5. PSYCHO-SOCIAL OUTCOMES:

- Emotional and psychological outcomes and Social consequences:
 - Post-traumatic stress
 - Depression
 - Anxiety, fear
 - Anger
 - Shame, insecurity, self-hate and self-blame
 - Mental illness
 - Suicidal thoughts, behavior
 - Blaming the victim/survivor
 - Loss of role/functions in society (e.g., earn income, child care)
 - Social stigma
 - Social rejection and isolation

- Feminization of poverty
- Increased gender inequalities:
 - Sexual complications:
 - Sexual aversion
 - Dyspareunia
 - Frigidity
 - Intimacy problems
- Ethical and Legal issues related to SGBV:
 - Ethics:
 - Description
 - The rights of SGBV Survivors:
 - The right to health
 - The right to human dignity
 - The right to non-discrimination
 - The right to self-determination
 - The right to information
 - The right to privacy
 - The right to confidentiality
- Responsibilities of health provider to adhere to:
 - Autonomy: the right of patients or patient <18 years parents or guardian should make decision on their behalf. All steps taken are based on an informed consent
 - Beneficence: the duty or obligation to act in the best interest of the patient
 - Non-maleficence: the duty or obligation to avoid harm to the patient
 - Justice of Fairness: doing and giving what is rightfully due
 - Respect: showing respect for clients as individuals regardless of the cultural background, health status, religion, socio-economic status, etc.
 - Confidentiality: sharing only the necessary information, as requested and as agreed by the victims/survivors
- Legal Implications- SGBV violates the human rights
- Assessment to identify psychosocial and sexual complications stemming from SGBV:
 - Consequences of SGBV

Semester IV

- Survivors of rape and sexual abuse are at increased risk of experiencing a range of symptoms:
 - Psychological and emotional symptoms or consequences:
 - Uncontrollable emotions such as fear, feeling of bitterness and anger, feeling of guilt, shame, floating anxiety, feeling of hatred (explain gently that rape is always the fault of the perpetrator and never the fault of the survivor)
 - Mood swing
 - Nightmares and sleeping disorders
 - Eating disorders
 - Suicidal thoughts or suicide attempts
 - Confusion/embarrassment
 - Feeling of humiliation
 - Numbness
 - Intrusive memories
 - Sense of powerlessness
 - Depression
 - Hostility or aggressive behavior
 - Inability to distinguish affectionate from sexual behavior
 - Frustration
 - Hallucination
 - Difficulties in concentration and learning
 - Panic attacks
 - Embarrassment
 - Feeling of being dirty
 - Post-traumatic stress symptoms
 - Social consequences:
 - The victim may suffer social stigmatization: which results in further emotional damage, including shame, self-hate and depression. Presence of a child from rape creates further psychological and social problems for the mother and child.
 - Divorce
 - Rejection and isolation
 - Dishonor
 - Social withdrawal

- Having a child from the rape
- Sexual problems:
 - Frigidity
 - Dyspareunia
 - Unwanted pregnancy
 - Feeling of being a sexual object
 - Abortion
 - Intimacy problems
 - Sexual aversion

6. SGBV AS A TRAUMA:

- Signs of trauma:
 - Being unable to stop thinking about the event
 - Continuing to react fearfully even when the danger has passed
 - Being easily reminded of the event by things that are not very related
 - Increased difficulty in controlling emotions
 - Nightmares about the event
 - Being easily irritated
 - Having a low tolerance for stress
 - Being easily startled
 - Losing a sense of reality
 - Having suicidal thoughts
 - Hallucination, rigidity, delusion, depression.
- SGBV and post-traumatic stress disorders (PTSD):
 - **Post:** after, following
 - **Trauma:** pain, hurt, shock, injured, wound
 - **Stress:** exhausted, depressed, burdened, worry, tension
 - **Disorder:** abnormal, unbalance, uneasy

Semester IV

- Four characteristics of PTSD according to Van de Keelk (1987):
 - A surprising occurrence
 - Of piercing intensity
 - That is outside the range of human experience
 - Frightens almost anyone
- Role of service providers:
 - Tell the survivor that she has experienced a serious physical and emotional trauma
 - Advise her about the PTSD that she may experience
 - Respond compassionate to survivor
 - Take all actions guided by respect for the wishes, the rights and the dignity of the victims/survivors
- Important factors to consider when doing interview of a SGBV survivor:
 - Conduct interview at patient's wish
 - Apply good listening skills when taking the story
 - Be observant; make critical and positive interference - observe case (keep it short and simple)
 - Ask relevant questions in a gentle way
 - Be patient; do not press for more information if the victim/survivor is not ready to speak about her experience
 - Guarantee confidentiality
 - Respect the wishes of the patient
 - Take traditional background of the client into account
 - Let the client have her own pace
 - Let the client discuss subject that interests her
 - Be able to direct communication toward the goal of the interviewer
 - Open up more talking (e.g., Tell me more about it; go on in that area, that interests me, etc.)
 - Reflect - repeat carefully selected words that the client had said
 - Give the survivor the opportunity to ask questions and voice her concerns

- Listen but do not force her to talk about the event and ensure that her basic needs are met
- Do not push survivors to share their personal experiences beyond what they would naturally share
- Ask the survivor if she has a safe place to go to and if someone she trusts will accompany her. If she has no safe place to go immediately, efforts should be made to find one for her
- Support the client throughout the interview to give her psychological strength
- Points to note:
 - Approach a social worker when the client refuses to engage in any form of interview
 - Approach a social worker when the client needs other assistance than medical care (i.e., legal, psycho-social, referral, etc.)

7. USING COUNSELING SKILLS:

- Definition of counseling:
 - To create this trusting relationship, the counselor should:
 - Prepare a comfortable seating
 - Respect the privacy and confidentiality (discussion cannot be overheard by other people)
 - Be patient as the survivor may find it hard to express her experience and feelings initially
 - Show concern throughout the session, listen carefully and empathetically, and observe non-verbal clues
 - Have appropriate facial expressions; i.e., if the client cries the counselor's facial expression should show sympathy and concern
 - Show respect for uniqueness
 - Use open-ended questions to offer the client the chance to explain things in some details
 - Have non-judgmental attitudes
 - Make good eye contact from time to time to check that you have heard her correctly and avoid misunderstanding
- During the counseling session:
 - Observe the mental status of the client:
 - Alertness-attentiveness

Semester IV

- Behavior-speech
- Support
- Mood – how she feels like?
- Affected – how she looks like?
- Appropriate?
- Thought process-flights of ideas?
- Thought content-are they in contact with reality?
- Knowledge – oriented to time and place?
- Judgment – insight

8. CLINICAL MANAGEMENT OF SGBV SURVIVORS:

Eight Steps in the Management of SGBV Survivors

- Step 1. Preparing to offer medical care to SGBV survivor:
 - Information to the community:
 - What services are available for people who have been raped
 - What are the benefits for seeking medical care?
 - Where to go for services, preferable 24 hours a day service
 - The importance of coming immediately or as soon as possible (ASAP) after an incident without bathing or changing clothes
 - They can trust the service to treat them with dignity, maintain their security, and respect their privacy and confidentiality
 - The country's law and policies:
 - Which health care provider should provide what type of care?
 - What are the legal requirements with regards to forensic evidence?
 - What are the legal requirements with regard to reporting?
 - What are the national laws regarding management of the possible medical consequences of rape (emergency contraception, abortion, testing and prevention of HIV infection, etc.)
 - Resources and capacities available:
 - What laboratory facilities are available for forensic testing: DNA, STI, and HIV?
 - What counseling services are available?
 - Are there rape management protocols and equipment for documenting and collection of forensic evidence?

- Is there a national STI treatment protocol, a post exposure prophylaxis (PEP) protocol and a vaccination schedule? Which vaccines are available? Is emergency contraception available?
- What possibilities are there for referral, counseling services, surgery, pediatrics or Ob-Gyn services?
- Where should care be provided and by whom:
 - Clinic or OPD services already providing reproductive health services E.g.: family planning, antenatal care service, normal delivery care service, and management of STI and referral services.
 - Staff in health facilities dealing with rape survivors, from receptionists' staff to health care professionals, should be trained in their care. The training should be adapted accordingly.
- How should care be provided?
 - According to developed protocol
 - In comprehensive, confidential and non-judgment manner
 - With focus on the survivor and her needs
 - With an understanding of the provider's own attitudes and sensitive.
- What is needed?
 - All health care for survivors should be provided in one place to avoid many movements by the patient from place to place.
 - Services should be available, supplies should be prepared and kept in a special box for speedy readiness including:
 - Protocol
 - Furniture
 - Medical supplies
 - Drugs
 - Administrative supplies
- Step 2. Preparation of the survivor for examination:
 - Informed consent
 - Be compassionate
 - Be holistic
 - The preparation is done as follows:
 - Introduce yourself
 - Ensure that a support person or trained health worker of the same sex accompanies the survivor through the examination

Semester IV

- Explain what is going to happen during each step of the examination
 - Reassure her that she is in control of the pace, timing and components of the examination
 - Reassure her that findings will be kept confidential unless she decides to bring changes and ask her if she has any questions
 - Ask if she wants to have a specific person present for support. Ask this question when she is alone
 - Review the consent form with survivor and make sure she understands everything in it
 - Explain to her that she can refuse any aspect of the examination she does not wish to undergo. Once the consent is well understood, ask her to sign it. If she cannot write, obtain a thumbprint with the signature of a witness
 - Limit the number of people in the examination room
 - Do the examination ASAP
 - Do not force or pressure the survivor to do anything against her will.
- Step 3. Taking the history:
 - General guidelines as follows:
 - If the interview is conducted in the treatment room, cover the medical instruments until they are needed
 - Before taking the history, review any documents or paperwork brought by the survivor to the health center
 - Use a calm tone of voice and maintain eye contact
 - Let the survivor tell her story the way she wants to
 - Questioning should be done gently and at the survivor's own pace; avoid questions that suggest blame, such as "what were you doing there alone?"
 - Take sufficient time to collect all needed information, without rushing
 - Do not ask question that have already been asked and documented by other people involved in the case
 - Avoid any distraction or interruption during the history taking
 - Explain what you are going to do at every step
 - Filling of medical history and examination form for sexual violence:
 - Take first general information:
 - Ask the survivor to describe what happened
 - Explain that she does not have to tell you anything she does not feel comfortable with

- Explain to the survivor, and reassure her of confidentiality if she is reluctant to give detailed information but explain that it is important that the health worker understands exactly what happened in order to check for possible injuries and assess the risk of pregnancy and STI or HIV
 - If the incident occurred recently, determine whether the survivor has bathed, urinated, defecated, vomited, used a vaginal douche or changed her clothes since the incident; this may affect what forensic evidence can be collected
 - Get information on existing health problems:
 - Allergies
 - Use of medication
 - Vaccination
 - HIV status
 - Evaluate for possible pregnancy
 - Use the checklist to check for pre-existing pregnancy if no pregnancy test:
 - Have you given birth in the past four weeks?
 - Are you less than 6 month postpartum and fully breastfeeding; and free from menstrual period start within the past 7 days?
 - Have you gone without sexual intercourse since your last menstrual period (apart from the incident)?
 - Did your last menstrual period start within the past 10 days?
 - Have you had a miscarriage or abortion in the past 10 days?
 - Have you been using a reliable contraceptive method consistently and correctly?
 - If the survivor answers **NO** to all the six questions, they should ask about and look for signs and symptoms of pregnancy. If pregnancy cannot be confirmed, provide the survivor with information on emergency contraception to help her arrive at an informed choice.
 - If the survivor answers **YES** to at least one question and she is free of signs and symptoms of pregnancy, provide her with information on emergency contraception to help her arrived at an informed choice.
- Step 4. Collecting forensic evidence:
 - Reasons for collecting evidence:
 - To prove or disprove a connection between individuals and/or between individual and objects or places
 - To support a survivor's story
 - To confirm recent sexual contact

Semester IV

- To show that force or coercion was used
- Possibly, to identify the attacker
- To help survivor in pursuing legal redress
- General Rules/Principles:
 - Obtain a voluntary informed consent for examination and to obtain the required sample for forensic examination
 - Prepare equipment and supplies for forensic examination
 - Look at the survivor first, before you touch her and note her appearance and mental state
 - Always inform her on what you are going to do and get her permission. Evidence should only be released to authorities if the survivor decides to proceed with the case
 - Permit her to ask questions and assure her that she is in control
 - Do the survivor's vital signs (temp. BP, pulse and respiratory rate); treat and attend urgently to any medical complications expressed by the patient
 - Collection of sample such as blood, saliva, and sperm within 72 hours of the incident may help to support the survivor's story
- Documenting the case:
 - Before 72 hrs: samples collected are blood, hair, saliva, and clothing. These will help support survivor's story
 - After 72 hrs: the amount and type of evidence (s) collected will depend on the situation. Rest mostly on history because all forensic evidence has been destroyed
- Information to Document:
 - Record victim's important statement in her own word clearly, completely, objectively, and non-judgmentally
 - Avoid words like "alleged"
 - Use qualifying statements like "patient reports" or "patient said" or "patient states"
 - Note down clearly and systematically using standard terminology which sample (s) was/were collected
 - Record the assailant's name, if known
 - Consult your local laboratory regarding appropriate types and handling of specimens
 - Record your findings in the pictogram

- Record the interview and the findings in clear, complete, objective, non-judgmental way
- It is not the health care provider's responsibility to determine whether or not a woman has been raped
- Document your findings without stating conclusions about the rape. Note that in many cases of rape there are no clinical findings
- Completely assess and document the physical and emotional state of the survivor
- Document all injuries clearly and systematically using standard terminology
- Report precisely, in the survivor's own words, important statements made by her, such as reports of threats made by her, such as reports of threats made by the assailant; do not be afraid to include:
 - Name of the assailant
 - Use qualifying statements such as "patient states" or "patient reports"
 - Avoid the use of the term "Alleged" as this can be interpreted as meaning that the survivor exaggerated
- Make note of any sample collected as evidence
- Sample that can be collected as evidence:
 - Injury evidence: physical or genital
 - Clothing: torn or stained
 - Foreign material: soil, leaves, and grass on clothes or body or in hair
 - Hair: foreign hair on pubis, clothes or body
 - Sperm and seminal fluid: from vagina, anus, and oral cavity for prostate acid phosphates analysis
 - DNA analysis
 - Blood or urine for toxicology testing
- Method of collecting forensic samples:
 - Use the following principles and adhere to them strictly:
 - Avoid contamination
 - Collect early
 - Handle appropriately
 - Label accurately
 - Ensure security
 - Maintain continuity
 - Document collection

Semester IV

- Types of samples that can be collected as evidences:
 - Injury evidences: physical and/or genital trauma can be evidence of forces and should be document
 - Foreign materials (soil, leaves, hair, and grass) on clothes or body may ascertain the survivor's story
 - Hair: foreign hair may be found on the survivor's clothes or body, head and pubic hair from the survivor may be plated or cut for comparison
 - Sperm and seminal fluid-swabs may be taken from her vagina, anus or oral cavity, if penetration took place in these locations for direct examination for sperm, and for DNA and acid phosphates
 - Bite marks, semen stains and involved orifices and finger nail cuttings and scrapings can be taken for analysis
 - Blood from the victim can be taken for analysis to distinguish it from any foreign DNA found
 - Blood or urine may be collected for toxicology testing (if the survivor was drugged).
- Inspection of the blood to collect all evidence:
 - Examine the survivor's clothes. Examine the upper half of her body first, then the lower half, or provide a gown for her to cover herself
 - Document all injuries
 - Collect samples for DNA
 - The survivor's pubic hair may be combed for foreign hairs
 - If ejaculation took place in the mouth, take samples and swab the oral cavity, for direct examination of sperm and for DNA analysis if recommended.
- Inspection of the anus, perineum and vulva:
 - Inspect and collect sample for DNA analysis from the skin around the anus, perineum and vulva using cotton-tipped swabs moistened with sterile water.
 - Examination of the vagina and rectum:
 - Depending on the site of penetration, examine the vagina and/or rectum
 - Lubricate a speculum with normal saline or clean water (other lubricants may interfere with forensic analysis).
 - Collect some of the fluid in the posterior fornix for examination for sperm
 - Take specimens of the posterior fornix and the endocervical canal for DNA analysis, using cotton-tipped swabs; let them dry at room temperature
 - Collect separate samples from the cervix and the vagina; these can be analyzed for acid phosphatase

- Obtain samples from the rectum, if indicated, for examination for sperm, and for DNA and acid phosphatase analysis
- Maintaining the chain of evidence:
 - Maintain the chain of evidence at all time to ensure that the evidence will be admissible in court
 - Collect, label, store and transport evidence properly
 - Everyone who has possession of the evidence at any time, from the individual who collect it to the one who takes it to the courtroom, must include their signatures, to prevent any possibility of tampering
 - Take the following precautions if it is not possible to take the samples immediately for a laboratory:
 - Dry all cloth, swabs, gauze and other objects to be analyzed at room temperature and pack them in paper (not plastic) bags
 - Store blood and urine in the refrigerator for 5 days; to keep the samples longer they need to be stored in a freezer
 - Label clearly all samples with a confidential identifying code (not the name or initials of survivor), date, time and type of sample (what it is, from where it was taken), and put in a container or a bag
 - Seal the bag or container with paper tape and write the identifying code and the date and signature your initials across the tape
- Diagnostic test:
 - Depends:
 - On the nature of the assault
 - The severity of the injuries sustained
 - On a case by case basis
- Prepare medical certificate:
 - Medical certificate is a legal requirement in most countries
 - Health care provider has the responsibility to prepare it
 - It is a confidential medical document given to a survivor by health care providers
 - Constitutes an element of proof; depending on the setting, the survivor may use it for 20 years; prove the event to seek justice or compensation
 - Health care providers should file one copy in order to certify the authenticity of the document supplied by the survivor before a court, if requested
 - Survivor has the singular right to decide whether and when to use this document

Semester IV

- Certificate may be handed over to legal services or organization with a protection mandate by a government of the survivor
- Reporting medical finding in a court of law:
 - Only some rape cases go to court for actual trial
 - In court, the prosecutor must prove three things:
 - Some penetration however slightly of the vagina or anus by a penis or other objects or penetration of the mouth by a penis
 - That penetration occurred with the consent of the person
 - The identity of the perpetrator
 - The health provider is expected to give evidence as a factual witness and not as an expert witness
 - Meet the prosecutor prior to the court session to prepare your testimony and obtain significant issues involved in the case
- Health care provider shall:
 - Dress appropriately
 - Speak clearly and slowly and make eye contact with whoever you are speaking to
 - Use precise medical terminology
 - Answer question thoroughly and professionally as possible
 - If you don't know the answer to the question, "say so"; don't testify about matters that are outside your area
 - Ask for clarification of questions that you don't understand; do not try to guess the meaning of questions
- Document information on the wound

Features	Notes
Classification	Use accepted terminology wherever possible (e.g., abrasion, contusion, laceration, incised wound and gunshot)
Site	Describe the anatomic position
Size	Measure the dimension of the wounds
Shape	Describe the shape of the wound (linear, curved, irregular)
Surroundings	Note the condition of the surrounding or nearby tissues (e.g., bruised, swollen)
Color	Observation of color particularly relevant when describing bruises
Contents	Note the presence of any foreign material in the wound (e.g., dirt, glass).
Age	Comment on any evidence of healing
Borders	Describe the characteristic of the edges of the wound(s) which may provide a clue as to the weapon used
Depth	Give an indication of the depth of the wounds

- The medical certificate
- This is legal requirement
- The examiner is to make sure that this is completed
- It is confidential
- It should be handed over to the survivor
- The examiner should keep one copy locked away from the survivor's file in order to be able to certify the authenticity of the document supplied by the survivor before a court if requested
- A medical certificate must include:
 - Name and signature of the examiner
 - Name of the survivor
 - Exact date and time of the examination
 - The survivor's narrative of the rape, in her own words
 - Findings of the clinical examination and the nature of samples taken
- Step 5. Performing the physical and genital examination:
 - The primary objective of the examination is to determine what medical care should be provided to the survivor
 - General guidelines to be followed:
 - Make sure the equipment and supplies are prepared
 - Always look at the survivor first, before touching her, and note her appearance and mental state
 - Always tell her what you are going to do and ask her permission before you do it
 - Assure her that she is in control and that she can stop the examination at any time
 - Take the patient's vital signs
 - The initial assessment may reveal severe medical complications that need to be treated urgently, and for which the patient will have to be admitted to hospital or you refer the survivor to a referral hospital. Such complication might be:
 - Extensive trauma (genital region, head, chest or abdomen)
 - Asymmetric swelling of joints (septic arthritis),
 - Neurological deficits
 - Respiratory distress

Semester IV

- Obtain voluntary informed consent for the examination and to obtain the required sample for forensic examination
- Survivor presents within 72 hours:
 - The procedure is as follow:
 - Physical examination guidelines:
 - Never ask the survivor to undress or uncover completely; examine the upper half of the body first then the lower half, or give her a gown to cover herself
 - Minutely and systemically examine the patient's body; start with vital signs and hands and wrists rather than the head, since this a more reassuring for the survivor
 - Do not forget to look in the eyes, nose, and mouth and behind the ear, the neck. examine forearms, wrists and ankles
 - Take note of the pubertal stage
 - Look for all signs that are consistent with her story (e.g., bite, punch marks...)
 - Note all your findings carefully on the examination form and attached body pictogram, the exact location of all wounds, bruises, mark etc., her mental status and samples collected
 - Examination procedure:
 - Examination of genital area, anus and rectum:
 - Note that there is identifiable damage in less than 50%
 - Inspect in the following order: mons pubis, inside of the thighs, perineum, anus, labia majora and minora, clitoris, urethra, introitus and hymen
 - Note any scar from previous genital mutilation or childbirth
 - Look for genital injury such as bruises, scratches, abrasions, tears (often located on the posterior fourchette)
 - Look for any sign of infection: ulcers, discharge or warts
 - Check for injuries to the introitus and hymen by holding the labia at the posterior edge between index finger and thumb and gently pulling outward and downward; hymeneal tears are more common in children and adolescents
 - Take samples according to your local evidence collection protocol
 - If collecting samples for DNA analysis, take swabs from around the anus and the perineum before the vulva, in order to avoid contamination
 - If there has been virginal penetration, gently insert a speculum, lubricated with water or normal saline (**DO NOT USE A SPECULUM IN CHILDREN**)

- Under good light inspect the cervix, the posterior fornix and the vaginal mucosa for trauma, bleeding and sign of infection
- Take swabs and collect vaginal secretions according to the location evidence collection protocol
- If indicated by the history and the rest of the examination, do a bimanual examination and palpate the cervix, uterus and adnexa, looking for signs of abdominal trauma, pregnancy or infection
- Examination of anus and rectum:
 - Note patient position during examination, (supine, prone, knee-chest or lateral recumbent for anal examination and supine for genital examination)
 - Note the shape, dilatation of the anus, fissures, presence of fecal matter on the anal skin, and possible rectal bleeding from rectal tears
 - If indicated, do a recto-virginal examination and inspect the rectal area for trauma, recto-virginal tears or fistulas, bleeding and discharge
 - Note the sphincter tone. If there is bleeding, pain or suspected presence of a foreign object, refer the patient to a hospital
- Special considerations for elderly women:
 - Elderly women who have been virginally raped are at increased risk for vaginal tears and injuries, and transmission of STI and HIV
 - Decreased hormonal levels following the menopause result in reduced vaginal lubrication and a thinner and a more friable vaginal wall
 - Use a thin speculum for vaginal examination
 - If the only reason for the examination is to collect evidence or to screen for STIs, consider inserting swabs only rather than using a speculum
- Special considerations for men:
 - For the genital examination:
 - Examine the scrotum, testis, and penis, per urethral tissue, urethral meatus and anus
 - Note if the survivor has been circumcised
 - Look for hyperemia, swelling (distinguish between inguinal hernia, hydrocele and hematocele), torsion of the testis, bruising, anal tears, etc.
 - Torsion of the testis is an emergency and requires immediate surgical referral
 - If urine contains large amounts of blood, check for penile and urethral trauma
 - If indicated, do a rectal examination and check the rectum and the prostate for trauma and signs of infection

Semester IV

- If relevant, collect material from the anus for direct examination for sperm under a microscope
- Laboratory testing:
 - Only sample mentioned in step 4 needs to be collected for laboratory testing. If indicated by the history of the findings on examination, further samples may be collected for medical purposes
 - If the survivor has complaints that indicate urinary tract infection, collect a urine sample to test for erythrocytes and leucocytes, and for possible culture
 - Do pregnancy test if indicated and if available
 - Other diagnostic tests, such as X-ray and ultrasound examinations, may be useful in diagnosing fractures and abdominal trauma
- Survivor presents more than 72 hours:
 - Physical examination:
 - It is rare to find any physical evidence more than 1 week after an assault
 - Do a full physical examination as above
 - Note the size and color of any bruises and scars
 - Note any evidence of possible complication of rape.
 - Check for signs of pregnancy
 - Note the survivor's mental state (normal, withdrawn, depressed, and suicidal)
 - Examination of the genital area:
 - If the incident is less than a week, note any healing injury and/or recent scars
 - If more than a week and there are no bruises or lacerations and no complaint (e.g., vaginal or anal discharge or ulcer) there is little indication to do pelvic examination
 - In this case a careful inspection with subsequent reassurance that no physical harm has been done may be of a great relief and benefit for the survivor
 - Laboratory testing:
 - Do a pregnancy test if indicated and available
 - If laboratory facilities are available, collect samples from the vagina and anus for STIs
 - Screening might cover:
 - Rapid plasma regain (RPR) test for syphilis
 - Gram stain and culture for gonorrhea
 - Culture or enzyme-linked immunosorbent assay (ELISA) for chlamydia
 - Wet mounts for trichomonas

- HIV test (only on a voluntary basis and after counseling)
- Special considerations for children:
 - Health workers must consider:
 - Child development and growth
 - Normal child anatomy
 - Techniques in examining children who have been abuse
 - National child abuse management protocol and information on customary police and court procedure
 - Specific laws about who give consent for minors and who can go to court as an expert witness
- Health workers must know when caring for child survivors:
 - A parent or legal guardian should sign the consent form unless he or she is the suspected offender
 - In this case, a representative from the police, the community support services or the court may sign the form
 - Adolescent minors may be able to give consent
 - The child should never be examined against his or her will, whatever the age, unless the examination is necessary for medical care
 - If initial assessment reveals severe complications, survivor must be admitted; such complications include:
 - Convulsions
 - Persistent vomiting
 - Stridor in a calm child
 - Inability to drink or breastfeed
 - In children younger than 3 months, look also for:
 - Fever
 - Low body temperature
 - Bulging fontanel
 - Grunting, chest in drawing, breathing rate more than 60 breaths/minute
 - Take the history:
 - Use of interpersonal communication skills to create a trusting relationship and a safe environment for the child.
 - The procedure is as follows:
 - Take special care in determining who is present during the interview and examination (family member could be the perpetrator)

Semester IV

- Introduce yourself to the child and address the child by her (his) name
- Sit at every level and maintain eye contact
- Assure the child that he or she is not in any trouble
- Ask a few questions about neutral topics, e.g., school, friends, who the child lives with and the favorite activities
- Begin the interview by asking open-ended questions, such as “why are you here today?” or “what were you told about coming here?”
- Avoid asking leading or suggestive questions
- Assure the child it is okay to respond to any question with “I do not know”
- Be patient: go at the child’s pace: do not interrupt his or her trend of thought
- Ask open-ended question to get information about the incident. Ask yes – no question only for clarification of details
- For girls, depending on age, ask the menstrual and obstetric history
- The pattern of sexual abuse of child is generally different from that of adults. For example, there is often repeated abuse. To get a clearer picture of what happened, the health care provider should try to obtain information on:
 - The home situation (Has the child a secure place to go to?)
 - How the rape/abuse was discovered
 - Who did it, and whether he or she is still a threat
 - If this has happened before, how many times and the date of the last incident
 - Whether there have been any physical complaints (e.g., bleeding, dysuria, discharge, difficulty in walking, etc.)
 - Whether any siblings are at risk
- Preparing the child for and conduct the examination:
 - The procedure for preparing the child for and conducting the examination is as follows:
 - There should be a support person or trained health worker whom the child trusts in the examination room
 - Encourage the child to ask questions about anything he or she is concerned about or does not understand at any time of the examination
 - Explain what was happen during the children will be able to relax and participate in the examination
 - It is possible that the child cannot relax because he or she has pains. If this is the case, give paracetamol or other simple analgesics, and wait for them to take effect

- Never restrain or force a frightened, resistant child to complete an examination; restrain and force are often part of sexual abuse and, if used by those attempting to help, will increase the child's fear and anxiety and worsen the psychological impact of the abuse
- It is useful to have a doll on hand to demonstrate procedures and positions
- Show the children the equipment and supplies, such as gloves, swabs etc.; allow the child to use these on the doll
- Conduct the examination in the same order as for an adult. Special considerations for children are as follows:
 - Note the child's weight, height and pubertal stage. Ask girls whether they have started menstruating; if so, they may be at risk of pregnancy
 - Small children can be examined on the mother's lap; older children should be offered the choice of sitting on the chair or mother's lap, or lying on the bed
 - Check the hymen as previously stated
- The amount of hymeneal tissue and the size of the vaginal orifice are not sensitive indicators of penetration; note the location of any fresh or healed tears in the human and vaginal mucosa:
 - Do not carry out any digital examination (i.e., inserting fingers in the vagina orifice to assess its size)
 - Do not use a speculum to examine pubertal girls; it is extremely painful and may cause serious injury
 - S speculum may be used only when you suspect a penetrating vaginal injury and internal bleeding. In this case, a speculum examination of a prepubertal child is usually done under general anesthesia; depending on the setting, the child may need to be referred to higher level of health care
 - In boys, check for injuries to the frenulum of the prepuce, for anal and urethral discharge; take swabs if indicated
 - All children, boys and girls, should have anal examination. Examine the anus with child in the supine or lateral position; avoid the knee – chest position, as assailants often use it
 - Record the position of any anal fissures or tears on the pictogram
 - Reflex anal dilatation (opening of the anus on lateral traction on the buttock) can be indicative of anal penetration, but also of constipation
 - Do not carry out a digital examination to assess anal sphincter tone

Semester IV

- Laboratory testing:
 - Testing for STIs, should be done on case-by case basis and is strongly indicated in the following situations:
 - Child presents with signs or symptoms of STI
 - The suspected offender is known to have an STI or is at high risk of STI
 - There is a high prevalence of STI in the community
 - The child or parent requests testing
 - Screening for gonorrhea, chlamydia, syphilis and HIV must be done in all children who may have been raped
- Step 6. Treatment and follow-up care:
 - General information:
 - Exposure to sexual violence is associated with a range of health consequences for the victim; comprehensive care must address the following issues, physical injuries, pregnancy; STIs, HIV and hepatitis B; counseling and social support; and follow-up consultation.
 - The possibility of pregnancy resulting from the assault should be discussed. If the woman is seen within the first 72 hours after the assault took place, emergency contraception should be offered. If she is seen 72 hours after the assault, she should be advised to return for pregnancy testing if she misses her next period.
 - If sexual violence results in pregnancy that a woman wishes to terminate, referral to legal abortion services should be made.
 - When appropriate, patient should be offered testing for Chlamydia, gonorrhea, trichomoniasis, syphilis, HIV and hepatitis B; this may vary according to existing protocol.
 - The decision to offer STI prophylaxis should be made on a case-by-case basis. Routine prophylactic treatment on all patients is generally recommended.
 - Health workers must discuss thoroughly the risks and the benefits of HIV post-exposure prophylaxis so that they can help their patients reach an informed decision about what is best for them.
 - Social support and counseling are important for recovering. Patients should receive information about the range of normal physical and behavior responses they can expect, and they should be offered emotional and social support.
 - All patients should be offered access to follow-up services, including a medical review at 2 weeks, 3 months and 6 months post assault, and the referral for counseling and support services.

- The treatment and follow-up depend on how soon after the incident the survivor presents: Within and after 72 hours
- Survivor presents within 72 Hours:
 - Prevent STIs
 - Prevent HIV Transmission
 - Prevent pregnancy
 - Provide wound care
 - Prevent tetanus
 - Prevent hepatitis B
 - Provide mental health care
- Prevention of STIs:
 - Survivors of rape should be given antibiotics to treat gonorrhea, Chlamydia, syphilis and for trichomonas if necessary
 - Give the shortest courses available in the protocol, e.g., 400mg of cefixime plus 1g of azithromycin orally will be enough for gonorrhea, chlamydia and syphilis infections
 - Be aware that pregnant women should not take certain antibiotics and modify the treatment
 - Preventive STI regimens can start on the same day. See local protocols
 - Use local protocol from MOH and SW
- Prevention of HIV transmission:
 - Make sure that the staff is aware of PEP indications and how to counsel survivors on this issue or make names and addresses of providers for referral
 - Post exposure prophylaxis (PEP) is believed, if started within 72 hours after the incident, to be beneficial
 - PEP should be offered according to assessment of risk, which should be based on what happened during the attack
- PEP:
 - For example: Whether there was penetration, the number of attackers, injuries sustained, etc.
 - Risk of HIV transmission increases in the following cases:
 - When there was more than one assailant
 - If the survivor has torn or damaged skin
 - If the assault was an anal assault
 - If the assailant is known HIV-positive or an injecting drug user

Semester IV

- If the HIV status of the assailant is not known, assume they are HIV positive particularly in countries with high prevalence
- PEP usually consists of 2 or 3 antiretroviral drugs (ARV) given for 28 days
- If it is not possible for the survivor to receive PEP in your setting, refer her ASAP with 72 hours
- If she presents after 72 hours, provide information on voluntary counseling and testing (VCT) services
- PEP can start on the same day as other emergency regimens
- Counseling for HIV test may be particularly difficult with a person who has just gone through a sexual assault; the survivor may not be ready for additional stress of HIV testing and receiving the result
- If the survivor does not want to be tested immediately, PEP can be started and HIV testing can be addressed again at 1-week follow-up visit
- Pregnancy is not a contraindication to PEP, and ensure that pregnant women are referred for ANC
- The following points should be covered when counseling for PEP:
 - The level of risk of HIV transmission during rape is not exactly known, but the risk exists
- Settings where HIV prevalence is high:
 - It is preferable to know the survivor's HIV status prior to starting PEP,
 - The survivor is free to choose or not to have immediate HIV testing. If she prefers, the decision can be delayed until the 1-week follow-up visit
- The efficacy of PEP is not known but research on prevention of mother-to-child transmission and prophylaxis indicates that PEP is likely to be effective in reducing transmission
 - Explain the common side effects of the drugs
 - Provide the survivor with a patient information leaflet
 - Survivor may be given a week's supply of PEP at the first visit with the remainder of drugs given at the one week follow up visit
- Common side effects:
 - Tiredness, nausea, for zidovudine and lamivudine then vomiting, diarrhea, loss of appetite, stomach pain, headache, rash, kidney stone, muscle pains, general malaise, fever, jaundice, raised blood sugar and hemolytic anemia for Indinavir

- Prevention of pregnancy:
 - Taking emergency contraceptive pills (ECPs) within 5 days of unprotected intercourse will reduce the chance of pregnancy between 56 and 93% depending on the regimen and the timing
 - ECP does not interrupt or damage an established pregnancy
 - The use of ECP is a personal choice that can only be made by the survivor if the survivor is a child who has reached menarche, discuss emergency contraception with her and her parent or guardian who can help her to understand. If an early pregnancy is detected at this stage, make clear to the woman that it cannot be the result of the rape. There is no known contraindication to ECPs
- Using IUD as emergency contraceptive:
 - If the survivor presents after 5 days following the incident, IUD insertion is an effective method of prevention
 - A skill provider should counsel the patient and insert the IUD. Make sure to give STI treatment
 - The IUD may be removed at the time of the woman's next menstrual period or left in place for future contraception
- Instructions and Information for patients' prescribed ECPs:
 - The risk of becoming pregnant as a result of the assault will decrease if ECPs are taken within 5 days of the assault
 - ECPs are not 100% effective
 - ECPs do not cause abortion, they prevent or delay ovulation, block fertilization or interfere with implantation, they will not affect an existing pregnancy
 - Take pills as directed
 - The pills may cause nausea and vomiting. If vomiting occurs within one hour of taking the ECPs, repeat the same dose regimen
 - In most cases, the patient's next menstrual period will occur around the expected time or earlier. If it is delayed, a pregnancy test should be performed to assess the possibility of pregnancy. ECPs do not cause immediate menstruation.
 - Finally, patients should be advised that if they experienced any of the following symptoms, they should seek help immediately:
 - Severe chest pain
 - Shortness of breath
 - Severe headaches
 - Blurred vision or loss of vision

Semester IV

- Severe pain in the calf of thigh
- Provide wound care:
 - Clean any tears, cuts and abrasions and remove dirt, feces, dead and damaged tissue
 - Decide if any wounds need suturing
 - Suture clean wounds within 24 hours. After this time they will have to heal by second intention
 - Do not suture very dirty wounds
 - If there are major contaminated wounds, consider giving appropriate antibiotics
- Prevent tetanus:
 - If there are breaks in skin or mucosa unless the survivor has been fully vaccinated against tetanus
 - If vaccine and immunoglobulin are given at the same time, use separate needles and syringes and at different sites
 - Advise survivors to complete the vaccination schedule (second dose at 4 weeks and third dose at 6 month to 1 year)
- Prevent hepatitis B:
 - Find out the prevalence of hepatitis B in your setting as well as the vaccination schedules
 - Check for the dosage and vaccination schedule for the product that is available in your setting
 - Check for the dosage and vaccination schedule for the product that is available in your setting
 - The provision of post exposure prophylaxis will depend on the setting you are working in
 - Survivor of rape should receive the vaccine within 14 days of the incident
 - In countries where the infant immunization program routinely include the vaccine and the vaccination card, if the survivor confirms this, no additional doses of the vaccine is needed
 - The usual vaccination schedule is 0, 1 and 6 months
 - Give the vaccine IM in the deltoid muscle in adults or the anterolateral thigh for infants and children
 - The vaccine is safe for pregnant women and people who have chronic or previous hepatitis B virus infection
- Provide mental health care:
 - Give social and psychological support

- If the survivor has symptoms of panic or anxiety that cannot be medically explained (without an organic cause) reassure him or her
- Provide medication only in exceptional cases: 5 to 10 mg diazepam to be taken at bedtime just for 3 days and refer to a professional trained in mental health
- If no such professional is available and the symptoms continue, repeat the dose for few days with daily assessment
- Be cautious not to create dependency
- Survivor presents after 72 hours:
 - If laboratory tests for STIs reveal infection or the person has symptoms, follow local protocol for treatment
 - HIV testing can be done within 6 weeks after the rape but it is recommended to refer the person for voluntary counseling and testing (VCT) after 3 to 6 months
 - If the survivor is pregnant, try to ascertain if she could have become pregnant before or as a result of the rape and counsel her on the possibilities available.
 - If she presents between 3 days and 5 days give emergency; contraceptive pills
 - If she presents within the 5 days, insertion of IUD is also an effective method of prevention
 - For tetanus, vaccinate immediately, no matter how long it is since the incident. If there remains major dirty, unhealed wounds, consider giving tetanus immunoglobulin. The incubation period is 3 to 21 days
 - Hepatitis B has an incubation period of 2 to 3 months on average. Vaccinate immediately no matter how long it has been. If vaccination card confirms previous vaccination: No additional dose is needed.
 - For physical injuries, treat or refer for treatment, all unhealed wounds:
 - Provide mental health as earlier stated;
 - Provide counseling services.
- Step 7. Counseling the survivor:
 - Assessment to identify psychosocial and sexual complications stemming from SGBV
 - Manage according to protocols
- Step 8. Follow-up care of the survivors:
 - Follow-up visits for survivors who did not receive post-exposure prophylaxis
 - Two-week follow-up visit:
 - Evaluate for STIs and treat

Semester IV

- Assess pregnancy status if indicated
 - Test for syphilis if prophylaxis was not given
 - Provide advice on VCT for HIV
 - Evaluate mental and emotional status: refer or treat as needed
- For those who started on post-exposure prophylaxis with anti-retroviral drugs, discuss the follow-up with the PEP provider

Psychiatric/Mental Health Nursing I Clinical Course Description

This clinical course will enable the learner use theoretical knowledge in the development of skills and competencies in assessment and management of individuals with mental health/psychiatric problems. Learners will be expected to collaborate with multi-disciplinary and multi-sectorial teams.

Clinical course Objectives:

At the end of this clinical practice, the learner will be able to:

- Demonstrate skills in assessment, diagnosis and management of a variety of mental health conditions in diverse settings throughout the lifespan
- Apply principles of care provision for identified mental health/psychiatric conditions
- Demonstrate therapeutic communication and interpersonal skills when interacting with individuals, families and communities
- Collaborate with multidisciplinary/multi-sectorial team in delivery of mental health care in a variety of settings
- Implement mental health promotion activities in supportive mental health environments
- Create and maintain therapeutic milieu conducive to the management of a variety of mental health/psychiatric conditions

Clinical Placement:

- Hospital wards
- Outpatient departments
- Community Health Departments
- Emergency rooms
- Communities

Clinical Skills:

- Assessment of mental status of patients
- Counseling
- Application of mental status tools (DSM-IV, Glasgow Coma Scale)
- Documentation

Semester IV

Competencies

Knowledge	Attitudes/Behavior	Skills
Understands how human behavior is affected by socioeconomics, culture, race, spiritual beliefs, gender, lifestyle, and age	Shows value for inherent worth and uniqueness of individuals and populations	Uses knowledge gained in human behavioral sciences to implement community directed health interventions
Understands the effects of health and social policies on persons from diverse background		Provides holistic care that addresses the needs of diverse populations across the life span
		Works collaboratively with health care providers from diverse backgrounds

Teaching/Learning Strategies:

- Lecture/discussion
- Seminar case studies or case histories
- Written examinations
- Quizzes
- Journaling
- Storytelling
- Peer coaching
- Role-playing (simulated practice with peers)
- Model interviews
- Worksheets
- Group presentations.
- Role play
- Community/activity/interview three traditional healers

Methods of Assessment:

- Written tests
- Short essay
- Multiply choice

- Process records
- Case studies
- Written report
- Class presentation
- Discussion of reports
- Individual student instructor conference, discussion of students' reactions and techniques of working with mentally ill patients
- Health talks

Types of Facilities Used:

- Hospitals and community clinics

Course Requirements:

- Participate in classroom discussions
- Submit two written in-depth analyses of nurse-client communication
- Submit a nursing care plan for a selected client
- Submit a client education project
- Oral presentation of clinical assessment of a selected client to peers
- Submit clinical worksheets as assigned
- Participate in clinical pre and post conferences
- Submit midterm and final self-evaluations based on competencies for laboratory portion of course
- Current journal articles

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Semester IV

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De Bruyn, M. And France N. (2001). Gender or sex: Who cares? Skills building resource pack on gender and reproductive health for adolescents and youth workers with a special emphasis on violence, HIV/STIs, and unwanted pregnancy. Chapel Hill, NC: IPAS.

Friedman Matthew J. (...). Post-traumatic Stress Disorders. The latest Assessment and Treatment Strategies. Library of Cataloging in Publication Data.

Course Title: Medical Surgical Nursing II

Credits:

5

Placement:

Second Semester of the second year

Duration:

16 weeks (14 instructional and 2 exams)

70 hours theory, 210 clinical

Prerequisites:

Ethical & Prof. Adjustment, Medical Surgical Nursing I, Tropical & Communicable Diseases, Pharmacology, Fundamentals of Nursing I & II, PHC I & II, Health Assessment

Course Description:

This is the second part to the two-part course designed to strengthen the students who successfully passed Medical-Surgical Nursing I to be able to adequately provide appropriate nursing care to the patient who is in a medical or surgical condition. This part of the course enables the learner to gain knowledge and skills to effectively manage adults with surgical conditions affecting any of the body systems and special senses within the context of ethical and professional nursing. It enables the learner to gain knowledge and skills to effectively provide nursing care and management of adults with surgical conditions. Emphasis is placed on utilization of knowledge of the nursing process, and the essential health package in the African Region (within the context of primary health care approach).

Broad Objectives:

Upon completion of this course, the student will be able to:

- Apply assessment process for an adult or aged patient with surgical disruptions utilizing the nursing process
- Analyze assessment data and identify nursing problems of the adult and aged patient with surgical diseases and conditions
- Assist with the diagnostic assessments of adult or aged patients and surgical diseases and conditions.
- Provide comprehensive nursing management of adult or aged patients and surgical (diseases and) conditions based on the essential health package
- Demonstrate ability to manage pharmacologic agents used in the treatment of adult or aged patients with surgical diseases and conditions, based on the essential health package

Semester IV

- Demonstrate ability in identifying nutritional requirements of adult or aged patients with surgical diseases and conditions
- Apply psychosocial, cultural, spiritual values in the nursing management of the patients with surgical diseases and conditions and their families
- Appropriately use the concepts in each unit in the clinical setting

Specific Objectives:

Upon completion of this unit, the students will be able to:

- Describe the clinical manifestations, nursing management, prevention and health education for heart disorders listed in content
- Identify emergencies of the heart for hospital referral
- Describe nursing management for patients undergoing treatment for heart disorders.
- Explain the assessment, clinical manifestation, nursing care and prevention for blood disorders
- Recognize common disorders of blood
- Describe the nursing management and medical care of clients with blood disorders
- Describe the clinical manifestations, nursing management, prevention and health education for peripheral vascular disease
- Identify peripheral vascular emergencies for hospital referral
- Describe nursing management for patients undergoing medical and surgical treatment of peripheral vascular diseases
- Describe the clinical manifestations, nursing care, prevention, and health education for the GI disorders listed in the content
- Discuss the etiology and pathophysiology of GI disorders listed in the content
- Describe diagnostic tests for GI disorders
- Describe nursing responsibilities for each and medical treatment of the conditions discussed
- Explain fluid and electrolyte balance in GI disorders discussed
- Describe and develop skills for the surgical management of patients with GI surgery
- Discuss follow up care and preventive measures for GI conditions discussed
- Describe the clinical manifestations, nursing management, prevention, and health education for the musculoskeletal disorders listed in the content

- Describe the etiology and pathophysiology for the musculoskeletal disorders listed in the content
- Identify musculoskeletal emergencies for hospital referral
- Describe nursing care for the patient in traction
- Describe the nursing management for the patient undergoing surgery for a musculoskeletal disorder
- Discuss overview of metabolic and endocrine system
- Describe diagnostic procedure of metabolic and endocrine system
- Describe the etiology of and pathophysiology of metabolic and endocrine disorders
- Identify metabolic and endocrine emergencies for hospital referral
- Discuss treatment in metabolic and endocrine disorders
- Describe nursing management for the patient undergoing thyroid surgery
- Discuss the long-term physiological effects of diabetes
- Explain to individual with diabetes how to self-administer insulin
- Discuss the types of insulin, administration, storage, side effects and precautions with administrations of insulin
- Describe the A & P of the urinary system
- Describe the management of patient with urinary tract disorder
- Discuss the prevention of urinary tract infection
- Describe the A & P of the nervous system
- Appropriately assess patient with neurological disorder
- Provide nursing care to patient with neurological disorder
- Discuss the causes and types of burns
- Discuss the clinical manifestations, nursing management and treatment and rehabilitation of burn patient
- Give health education to members of the community on the prevention of burns
- Demonstrate the appropriate assessment and first aid management for burns
- Demonstrate the procedures for cardiopulmonary resuscitation

Semester IV

- Give health education to members of the community prevention of
- Trauma
- Demonstrate CPR procedure

Course Content:

Unit I | Care of the Surgical Patient

- 1. CLASSIFICATION OF SURGICAL PROCEDURE**
- 2. LABORATORY AND DIAGNOSTIC TESTS**
- 3. PREOPERATIVE MEDICATIONS**
- 4. DIAGNOSTIC AND TREATMENT PROCEDURES**
- 5. NURSING CARE IN THE FOLLOWING PHASES:**
 - Preoperative
 - Intraoperative
 - Postoperative
- 6. PERIOPERATIVE CARE FOR THE ADULT PATIENT**
- 7. PRINCIPLES OF PAIN MANAGEMENT SPECIFIC TO ACUTE POST-OPERATIVE PAIN CONTROL**
- 8. NURSING PROCESS AS A FRAMEWORK FOR PROVIDING CARE FOR PATIENT UNDERGOING SURGERY**

Unit II | Nursing Care of the Surgical Patient with Problems of the Cardiovascular System

- 1. REVIEW OF A&P OF THE CARDIOVASCULAR SYSTEM**
- 2. GENERAL ASSESSMENT**
- 3. DIAGNOSTIC PROCEDURES**
- 4. COMMON DISORDERS:**
 - Valvular heart diseases
 - Vascular problems
 - Hypertension
 - Heart failure (congested)
 - Angina pectoris
 - Rheumatic heart disease

Semester IV

- Pericarditis
- Myocardial infarction
- Dysrhythmias
- Ischemic diseases
- Coronary artery disease
- Hemorrhoids
- Varicose veins
- Epistaxis

Unit III | Nursing Care of the Surgical Clients with Respiratory Conditions and Disorders

1. PNEUMONIA

2. ASTHMA

3. CHRONIC OBSTRUCTIVE PULMONARY DISEASE

4. PNEUMOTHORAX AND HEMOTHORAX

5. PLEURAL EFFUSION

6. CHEST SURGERY

7. CLOSED CHEST DRAINAGE

8. TRACHEOSTOMY

9. LUNG CANCER

10. NURSING CARE OF THE SURGICAL PATIENT WITH BLOOD DISEASES:

- General assessment
- Diagnostic tests
- Common disorders:
 - Leukemia
 - Lymphomas
 - Anemia

- Aneurism
- Thrombophlebitis
- Phlebothrombosis
- Lymphatic obstruction
- Arthero insufficiency
- Varicose veins

Unit IV | Nursing Care of the Surgical Patient with Problems of the Gastrointestinal Tract

1. REVIEW OF A&P

2. GENERAL ASSESSMENT AND MEDICAL HISTORY

3. DIAGNOSTIC PROCEDURES

4. COMMON DISORDERS:

- Diverticulum
- Gastric and duodenal ulcers
- Appendicitis
- Obstructions
- Ulcerative colitis
- Hernias/types
- Peritonitis
- Cancer of the rectum
- Hemorrhoids
- Anal fistulae
- Fissures and abscesses
- Cancer of the stomach and colon
- Cirrhosis of the liver
- Hepatitis

Semester IV

- Liver abscesses
- Gall bladder stones
- Intestinal obstruction
- Pancreatitis
- Cancer of the liver
- Regional enteritis
- Irritable bowel syndrome

Unit IV | Nursing Care of the Surgical Patient with Problem of the Musculoskeletal System

1. REVIEW OF A&P OF THE MUSCULOSKELETAL SYSTEM

2. GENERAL ASSESSMENT

3. DIAGNOSTIC PROCEDURES

4. ETIOLOGY AND PATHOPHYSIOLOGY OF THE FOLLOWING COMMON DISORDERS:

- Arthritis
- Osteoporosis
- Bursitis
- Fractures
- Bone healing
- Traction
- Splints
- Casts
- Sprain
- Strain
- Dislocation
- Amputation

- Contractures
- Osteomyelitis

Unit V | Nursing Care of the Surgical Patient with Metabolic and Endocrine Disorders

1. REVIEW OF A&P OF THE ENDOCRINE SYSTEM

2. GENERAL ASSESSMENT

3. COMMON DISORDERS:

- Diabetes
- Goiter
- Hypothyroidism
- Hyperthyroidism
- Hyperparathyroidism
- Hypoparathyroidism

Unit VI | Nursing Care of the Surgical Patient with Genitourinary Problems/Kidney and Urinary Tract Infection

1. REVIEW OF A&P OF THE URINARY SYSTEM

2. GENERAL ASSESSMENTS

3. DIAGNOSTIC PROCEDURES

4. COMMON CONDITIONS:

- Pyelonephritis
- Glomerulonephritis
- Nephritic syndrome
- Renal failure
- Renal stones
- Urinary retention

Semester IV

- Strictures
- Hypertrophy of the prostate gland
- Tumors and cancer
- Trauma
- Fistulas - vesicovaginal, rectal-vaginal
- Urethritis
- Epididymitis
- Orchitis
- Hydrocele
- Cystoscopy

Unit VII | Nursing Care of the Surgical Patient with Neurological Disorders

1. REVIEW OF A&P

2. DIAGNOSTIC PROCEDURES

3. COMMON DISORDERS:

- Parkinson's disease
- Convulsive seizures
- Cerebrovascular accident (CVA)
- Increased intracranial pressure
- Head injuries
- Meningitis
- Encephalitis
- Poliomyelitis
- Spinal cord injury
- Head injury
- Herpes zoster

- Headaches (types)
- Sciatic condition
- Tumor

Unit VIII | Nursing Care of Surgical Clients with Reproductive System Conditions

1. HERNIAS

2. ABORTION

3. UTERINE FIBROIDS

4. UTERINE PROLAPSE

5. CERVICAL AND BREAST CANCER

6. MASTITIS

7. HYDROCOELE

8. ENLARGED PROSTATE

9. NURSING CARE OF THE SURGICAL PATIENT WITH EMERGENCY AND TRAUMA PROBLEMS

10. EMERGENCY TRIAGE

11. BURNS:

- Causes and types of burns
- Clinical manifestations of burns
- Nursing management of burns:
 - Fluid and electrolyte imbalance
 - Pain control
 - Dressing (open and closed)
 - Prevention of contractures
 - Treatment
 - Prevention and health education

Semester IV

12. VARIOUS EMERGENCIES AND TRAUMA:

- Airway obstruction
- Drowning
- Bites and stings
- Drug overdose
- Multiple trauma
- Poisoning
- Electrical injuries
- Hemorrhage
- Unconsciousness
- Respiratory arrest

Unit IX | Cardiopulmonary Resuscitation

1. CARE AND MANAGEMENT OF SURGICAL CLIENTS TAKING THE FOLLOWING PHARMACOLOGIC AGENTS:

- Anti-inflammatory agents
- Analgesics
- Antifungal agents
- Anti-Parkinson's agents
- Diuretics
- Electrolyte supplements

Clinical Description

The clinical provides the learner the opportunity to develop skills and competences necessary for managing adult patients with surgical conditions/disorders of systems of the body. The learner utilizes the human needs theory, primary health care approach and the nursing process in the provision of care to adult patients with surgical conditions and their families.

Clinical Objectives:

At the end of this clinical experience, the student will be able to:

- Demonstrate competence in assessment of an adult patient with surgical conditions, applying the human needs theory
- Demonstrate competence in preparation of diagnostic assessments done on adult patients with chronic diseases
- Demonstrate competence in managing patients receiving pharmacologic agents used in the surgical treatment of adult patients with acute and chronic diseases
- Demonstrate competence in identifying nutritional requirements of adult patients with surgical diseases and conditions
- Apply psychosocial, cultural and spiritual, ethical professional values in provision of nursing care and management of the adult patient and support for their families

Clinical Skills:

- Preventing pressure ulcers
- Positioning patients
- Aspiration of bone marrow
- Providing wound/pressure sores care
- Suturing wounds
- Irrigating wounds
- Removing sutures and clips
- Performing Incision and drainage
- Administering injections
- Removing drains from wound
- Caring for stump after amputation

Semester IV

- Bandaging, splinting and applying sling
- Applying Plaster of Paris (POP)
- Removing plaster cast
- Applying and teaching range of motion exercises for patients in traction
- Ambulating a patient
- Assisting in lumbar puncture procedure
- Performing mental state examination
- Preventing injury in patients with epilepsy
- Collecting specimen for lab investigation
- Measuring intake and output
- Preparing and administering Sitz bath
- Assisting in gynecological examinations
- Administering/assisting patient with baths and personal hygiene
- Applying topical ointments

Clinical Placement:

- Operating room theatre
- Surgical wards

Competencies

Knowledge	Attitudes/Behaviors	Skills
Identifies components of the nursing process appropriate to individual health care needs	Appreciates the difference between data collection and assessment	Performs physical assessment to identify baseline normal/ abnormal findings
Demonstrates understanding of the diversity of the human condition	Values the inherent worth and uniqueness of individuals and populations	Plans appropriate care for clients and establishes priorities
Understands the concept of accountability for own nursing practice	Shows commitment to provision of high-quality, safe and effective patient care	Safely performs learned skills to adult clients with medical and surgical conditions
Understands the culture of nursing	Recognizes the responsibility to function within acceptable behavioral norms appropriate to the discipline of nursing	Completes nursing management for clients in a timely manner

Knowledge	Attitudes/Behaviors	Skills
Understands the concept of accountability for own nursing practice	Recognizes the responsibility to function within acceptable behavioral norms appropriate to the discipline of nursing and the health care institution	Adheres to school/agency policies and principles regarding ethical behavior and patient confidentiality
Understands apply the principles of effective communication through various means	Accepts responsibility for communicating effectively	Demonstrates effective communication skills in order to obtain data for client assessment and share pertinent information
Understands apply the principles of teaching and learning	Accepts the role and responsibility for providing health education to patients and families	Identifies client learning needs and formulates a plan for teaching
Demonstrates knowledge of basic scientific methods and processes regarding the administration of medicines	Appreciates the strength of scientific bases for practice	Correctly and accurately administers medications
Integrates objective data with knowledge gained from an assessment of the subjective experiences of the patient and his/her family	Values the nursing process as a means of identifying and meeting individualized needs of the client and his/her family	Documents appropriate information regarding the health status of medical-surgical patients according to school/agency policies

Assessment:

- Written examinations
- OSCE
- Logbook
- Checklists

Teaching/Learning Strategies:

- Interactive Lectures
- Case Studies
- Concept Mappings
- Homework Assignments
- Group Problem-Solving

Semester IV

Course Expectations:

The student is expected to:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

References:

Brunner and Studdarth, Textbook of Medical-Surgical Nursing, 7th edition.

LeMone, P., Burke, K., & Bauldoff, G. (2011). Medical surgical nursing: Critical thinking in patient care, 5th ed. Vol. 2 USA, Pearson.

Smeltzer, S. C., Bare, B. G., Hinkle, J. L., & Cheever, K. H. (2008). Brunner and Studdarth's textbook of medical-surgical nursing, 7th edition, Philadelphia, Lippincott Williams & Wilkins.

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Obstetric Maternity Nursing II

Credits:

4

Placement:

Second semester of second year

Duration:

16 weeks (14 Weeks instructional and 2 exams)

56 hours classroom

168 hours clinical

Pre-requisites:

Basic Math, Basic English, Fundamentals Of Nursing, Anatomy & Physiology I & 2, Integrated Basic Sciences, Psychology & Sociology, Basic Nutrition, Ethical And Professional Adjustment, Health Assessment, Obstetrical Maternity Nursing I, Epidemiology Demographics (PHCII), Pharmacology & Drug Calculations, Medical Surgical Nursing I.

Course Description:

This is the second component of a two-part clinical obstetrical nursing course. The course continues to address themes related to the principles of safe motherhood while focusing on the clinical care of women during the intra-partum and postpartum period and the immediate care of the newborn/neonate. Emphasis is placed on disorders of the reproductive system.

Broad Objectives:

At end of this course, the student will be able to:

- Understand the process of labor and delivery
- Integrate knowledge of OB I in managing labor and delivery
- Understand the disorders of the reproductive system
- Apply knowledge of anatomical and physiological principles to the care of pregnant women during labor, delivery and the postpartum
- Apply principles of health assessment to the care of women during labor, delivery and the immediate postpartum period and the care of the newborn
- Apply principles of communication, health education and counseling to the care of women and families during labor
- Manage patients in labor, during the delivery and postpartum periods, as well as the newborn

Semester IV

Specific Objectives:

Upon completion of this course, the student will be able to:

- Describe intra-partum factors affecting maternal and newborn mortality and morbidity
- Support the health of the mother and the fetus through promotion of optimal nutrition and hydration throughout labor
- Manage a women in normal labor using the partograph
- Conduct a normal vaginal delivery
- Provide initial management and refer women experiencing labor and delivery complications
- Identify and manage common GYN disorders
- Describe the immediate essential care of a newborn
- Provide essential newborn care to ensure normal respiration, thermal control, feeding and prevention of infection, including the use of chlorodexine for cord care
- Provide care for premature (born too soon) babies including Kangaroo Mother Care (KMC)

Course Content:

Unit I | Application of Reproductive Anatomy and Physiology to Labor and Delivery

- Related terminologies
- Anatomy of the pelvis
- Fetal anatomy and physiology
- Stages of labor
- Signs and symptoms of labor
- Physiologic changes in labor:
 - Physiology of uterine contractions
 - Dilation, effacement and descent
 - Mechanisms of birth

Unit II | Maternity Care during the First Stage of Labor

1. DIAGNOSIS OF LABOR - TRUE AND FALSE LABOR

2. SCREENING FOR MATERNAL AND NEWBORN RISK FACTORS:

- HIV, TB, Malaria
- Small for gestational age (SGA)
- Macrosomia
- Prematurity

3. MANAGEMENT OF NORMAL LABOR:

- Use of the partograph
- Management of the latent phase of labor
- Management of the active phase of labor
- Monitoring maternal and fetal well-being during labor:
 - Supporting physiologic labor:
 - Nutritional needs
 - Hydration
 - Comfort measures/pain management

Semester IV

- Anxiety

4. COMPLICATIONS OF LABOR:

- Premature Labor/Premature Rupture of Membrane (PROM):
 - Corticosteroids
 - Dystocia
 - Mal-presentation
 - Fetal distress
 - Infection
 - Hemorrhage
 - Retained placenta

5. DOCUMENTATION OF CARE

6. COLLABORATION WITH OTHER HEALTH PROFESSIONALS

7. COUNSELING AND EDUCATION OF FAMILY

Unit III | Conducting a Clean and Safe Delivery

1. MANAGING THE SECOND STAGE OF LABOR:

- Maternal positioning
- Determining fetal position
- Monitoring descent
- Delivery equipment and supplies
- Delivery hand maneuvers
- Protecting the perineum
- Episiotomy/laceration- Procedures and techniques for performing and repairing an episiotomy or laceration
- Cord clamping
- Management of the third stage of labor:
 - Active Management of the Third Stage of Labor (AMTSL):
 - Controlled cord traction

- Uterotonics (oxytocin and misoprostol):
 - Why uterotonics
 - Storage of medication
 - When and who to administer medication
 - Side effects and management

Unit IV | Maternity Care in the Immediate Postpartum Period

- Managing/preventing postpartum hemorrhage with AMTSL and uterotonics(misoprostol and oxytocin)
- Management of the mother and newborn:
 - Perineal/vaginal inspection
 - Check fundus, bladder, bleeding, pain
 - Check vital signs
- Assessment of the mother
- Assessment of the newborn
- APGAR score
- Essential newborn care:
 - Prevention of infection - eye ointment and chlorhexidine for cord care
- Newborn resuscitation - Helping Baby Breathe (HBB)
- Promoting maternal/newborn bonding
- Initiation of breastfeeding
- Education and counseling of mother and family:
 - Danger signs
 - Care of the newborn
 - Family planning
 - Nutrition - ENA

Unit V | Complications/Problems to Watch for during Labor and Delivery (Intra-Partum Complications)

- Abnormal presentations:
 - Transverse lie:
 - Definition
 - General considerations
 - Etiology
 - Physical examination
 - Diagnosis
 - Management
 - Complications
 - Prolapsed arm – usually with transverse lie – see above-transfer immediately
 - Breech:
 - Definition
 - Etiology
 - Classification/types
 - Diagnosis
 - Risk factors
 - Management
 - Face presentation:
 - Definition
 - Examination
 - Diagnosis
 - Management
 - Persistent occiput posterior:
 - Definition – 15–30% may start as occiput posterior, but most rotate to anterior, leaving 5–6% as persistent
 - Symptoms – usually more back pain with contractions
 - Course – usually longer course of labor
 - Diagnosis
 - Management

- Prolapsed cord:
 - Definition
 - Etiology
 - Clinical features
 - General considerations
 - Management
- Cephalopelvic disproportion (CPD) – causes dystocia:
 - Definition
 - Etiology
 - Clinical features
 - Cephalopelvimetry
 - Diagnosis
 - Effects and complications of CPD
 - Management
- Dystocia (mechanical/prolonged obstructed labor):
 - Definition
 - Etiology
 - Clinical features
 - Examination and assessment
 - Management
- Fetal distress:
 - Definition
 - Etiology
 - Clinical features
 - Assessment
 - Monitoring
 - Management
- Maternal distress:
 - Definition
 - Etiology
 - Clinical features
 - Assessment

Semester IV

- Monitoring
- Management
- Ruptured uterus:
 - Definition
 - Etiology
 - Clinical presentation
 - Diagnosis
 - Management
- Significant bleeding during labor (not just bloody show) - under antepartum:
 - Suspect placenta previa, abruptio placentae, or uterine rupture - descriptions above
 - Choosing the correct diagnosis
 - Management postpartum complications/after delivery of infant
- Retained placenta (entire placenta)
- Postpartum hemorrhage:
 - Causes:
 - Uterine atony – most frequent
 - Cervical or vaginal tear
 - Retained placental fragment
 - Management:
 - Uterotonic (oxytocin and misoprostol):
 - How to use
 - When to use
 - Storage
 - Contraindications
 - Management of side effects
 - Puerperal sepsis:
 - Symptoms
 - Diagnosis
 - Management
 - Postpartum depression:
 - Symptoms

- Screening and diagnosis (using the Edinburgh)
- Management

2. NEWBORN INFANT:

- Essential care of newborn – including breastfeeding
- Resuscitation:
 - Helping Babies Breathe (HBB)
- APGAR score
- Danger signs in newborns
- Breastfeeding
- Prevention of infection:
 - Chlorhexidine for cord care
- Prematurity care:
 - Kangaroo Mother Care

Unit VI | Nursing Care to Women with Acute and Chronic Diseases/ Conditions

- Human Immunodeficiency Virus
- Tuberculosis
- Malaria
- Hepatitis
- Thyroid diseases
- Diabetes
- Hypertension
- Depression
- Headaches
- Substance abuse
- Urinary tract infections
- Vaginitis

Semester IV

- Pelvic inflammatory disease

Unit VII | Climacteric/Menopause–End of the Reproductive Period

Unit VIII | Conditions Affecting the Pelvic Musculature and Vaginal Wall

- Rectocele
- Cystocele
- Uterine prolapsed
- Fistula

Unit IX | Conditions Affecting the Cervix and Uterus

- Cervicitis
- Endometritis
- Uterine displacement
- Tumors
- Malignancies – Endometrial and cervical carcinoma
- Benign tumors, including uterine fibromas

Unit X | Conditions Affecting the Ovaries and Fallopian Tubes

- Salpingitis
- Ectopic pregnancy
- Cysts
- Tumors

Unit XI | Congenital Abnormalities

- Imperforate hymen
- Cysts

- Tumors
- Bicornuate uterus
- Hermaphrodite

Unit XII | Conditions Affecting the Breasts

- Infections
- Mastitis
- Lumps
- Tumors
- Abnormal discharge from nipples

Unit XIV | Referrals

Obstetrics Maternity Nursing I Clinical Course Description

This course is an introductory experience in the provision of comprehensive medical care and counseling services to the elderly, adult and adolescent female patients. Obstetrical conditions and gynecological problems commonly encountered will be the focus of this clinical experience.

Clinical Objectives:

At the end of this course, the learner will be able to:

- Apply concepts from reproductive anatomy and physiology to care of a woman in labor
- Conduct safe deliveries
- Identify signs of obstetric/gynecological diseases and conditions in women
- Manage obstetric and gynecological diseases and conditions in women

Clinical Placement:

- Female wards
- Outpatient department
- Community

Clinical Skills:

- Educating women and mothers about safe motherhood
- Assessing postpartum mothers and neonates
- Preventing complications in pregnancy, labor and delivery
- Documenting findings and interventions

Competencies

Knowledge	Attitudes/Behaviors	Skills
The nurse has the knowledge and/or understanding of growth and development related to sexuality, sexual development and sexual activity	Is responsible and accountable for clinical decisions and actions	The nurse has the skill and/or ability to take a comprehensive health and obstetric, gynecologic and reproductive health history
Female and male anatomy and physiology related to conception and reproduction	Acts consistently in accordance with professional ethics, values and human rights	Engages the woman and her family in preconception counseling, based on the individual situation, needs and interests

Knowledge	Attitudes/Behaviors	Skills
Cultural norms and practices surrounding sexuality, sexual practices, marriage and childbearing	Acts consistently in accordance with standards of practice	Performs a physical examination, including clinical breast examination, focused on the presenting condition of the woman
Principles of screening methods for cervical cancer, (e.g., visual inspection with acetic acid [VIA], Pap test, and colposcopy	Maintains/updates knowledge and skills, in order to remain current in practice	Performs a physical examination, including clinical breast examination, focused on the presenting condition of the woman

Teaching/Learning Strategies:

- Classroom presentations
- Case studies
- Role plays
- Group exercises
- Visual aid
- Educational games
- Demonstration and return demonstration
- Coaching
- Homework and laboratory assignments
- Care plan

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Complete all clinical hours
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class, laboratory and clinical practicum
- Complete all assignments and examinations on due dates

Semester IV

Required Resources:

Davidson, M., London, M., Ladewig, P. (2008) *Olds' Maternal-Newborn Nursing & Women's Health Across the Lifespan* (8th ed.) Upper Saddle River, N. J.: Pearson Education, Inc. ISBN: 978-0-13-220873-4.

WHO (2009) Draft Sexual and Reproductive Health Competencies.

Fraser, D. & Cooper, M. (2009) *Myles Textbook for Midwives*. Churchill Livingstone. 15th Edition.

Pairman, S., Pincombe, J., Thorogood, C & Trace, S. (2006) *Midwifery: Preparation and Practice*. Churchill Livingstone.

Varney, H. (2004) *Varney's Midwifery* 4th Edition.

References:

- Coad, J. (2005) *Anatomy and Physiology for Midwives*. Elsevier.
 - BLSS modules: PART V Intrapartum Care
 - Chapter 26 – The normal first stage of labor
 - Chapter 27 – Fetal assessment during labor
 - Chapter 28 – The normal second stage of labor
 - Chapter 29 – Screening for and collaborative management of selected complications in the first and second stage of labor
 - Chapter 30 – Management of selected complications and deviations from normal
 - Chapter 31 – The normal third stage of labor
 - Chapter 32 – Third stage complications and management
 - Chapter 34 – Management of postpartum hemorrhage

Course Logistics:

Classroom: Recommend 3 hour class over 15 weeks

Clinical Practice: recommend 2 days per week over final 8 weeks of semester

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15% (written and oral)
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Pediatric Nursing I

Credits:

3 credits

Placement:

Second semester of second year (fourth semester)

Duration:

16 weeks (14 instructional and 2 weeks for exams)

42 hours classroom

126 hours laboratory and clinical

Pre-requisites:

Health Assessment; PHC-II; Pharmacology and Dosage Calculation; Ob/Gyn I and Medical Surgical I

Introduction/Course Description:

This course is designed to expose students to the role of the pediatric nurse who gives care to children, from birth to adolescence. The course builds on and assumes knowledge of newborn care, and care of the neonate to age two months. It also addresses well child care, health promotion, and growth and development. Emphasis is placed on evidence-based care with regards to the use of the nursing process and selected nursing theories in the care of children and adolescents.

Broad Objectives:

At the end of this course, the student will be able to:

- Obtain a broad overview of problems relative to pediatrics in developing countries – especially to Liberia
- Discuss the care of the child, family and community
- Understand and interpret concepts and principles of growth and development of children
- Apply the nursing process in providing comprehensive nursing care for children taking into consideration their growth and developmental stages
- Implement health promotion and prevention strategies appropriate at each age level

Specific Objectives:

By the end of this course, the student will be able to:

- Define major terms used in pediatrics
- Describe the roles of the Pediatric Nurse: care provider, teacher, advocate and counselor

Semester IV

- Demonstrate respectful and effective interactions with children and their parents
- Implement health promotion, disease and injury prevention strategies appropriate at each age level: infancy, young childhood and adolescence
- Describe the role of local, national and international organizations in pediatric care in Liberia
- Describe and critique child care practices commonly followed in Liberia
- Discuss and use play as a nursing intervention
- Discuss trends, role play in the development of child care in Liberia
- Describe developmental expectations for infants, children and adolescents
- Recognize and interpret deviations from normal in developmental expectations
- Describe patterns of growth and development in anatomy, physiology, cognition, psychosocial and emotional domains
- Explain factors influencing growth and development
- Applying developmentally appropriate methods: perform, record and interpret physical assessments and measurements of infants, children and adolescents
- Obtain, record and interpret a child health history
- Use developmentally appropriate methods to:
 - Perform and demonstrate general care and hygiene for children
 - Teach and demonstrate best nutrition practices for children
 - Discuss and demonstrate best feeding practices for children
 - Demonstrate and teach safety measures appropriate for developmental stages
 - Calculate, prepare, administer and record medications for children
 - Provide nutritional counseling to mothers of infants and children:
 - Breastfeeding
 - Weaning foods
 - Transition to family foods
 - Emphasis on fresh, unprocessed, low-fat foods
- Encourage exercise as a family activity
- Provide anticipatory guidance regarding prevention and early management of diarrhea and dehydration

- Describe home and community hygiene measures:
 - Hand washing
 - Food safety
 - Clean water
- Provide developmental surveillance – anticipatory guidance and health screening
- Describe strategies for prevention, recognition and care of most common illnesses for age group
- Explain the prevention and early management of most common injuries for age group
- Demonstrate health promotion and teaching appropriate for age group
- Explain the need for Planning, implementing and evaluating a developmental surveillance program
- Provide immunizations safely and effectively
- Discuss manifestations and impact of EPI diseases in Liberia
- List the names, types, dosage, timing and methods of administration of vaccinations on the immunization schedule
- Demonstrate the correct procedure for the administration of vaccines
- List and explain contraindications for administering vaccine in under-five clinics
- Describe the side effects of each vaccination, its timing and management
- Discuss proper storage and disposal of vaccines and equipment
- Plan and conduct immunization sessions:
 - Routine
 - Supplemental
 - Immunization vaccines
- Advocate for health promotion for children and their families at the local and state level

Course Content:

Unit I | Introduction to Pediatric Nursing

1. DEFINITIONS:

- Pediatrics
- Pediatric nursing
- Family-centered care
- Traumatic care

2. HISTORICAL DEVELOPMENT OF PAEDIATRIC NURSING:

- Theories and theorists
- Role of family in child and adolescent care
- Special considerations in pediatric nursing care
- Ethical and cultural issues in pediatric care
- National health programs related to child health
- Nursing process in the care of children

3. THE ROLE OF THE PEDIATRIC NURSE:

- In the community and health facility
- Direct care provider
- Health educator
- Teacher of child, family and community caregiver
- Advocate
- Counselor

4. LOCAL AND INTERNATIONAL ORGANIZATIONS RESPONSIBLE FOR CHILD HEALTH IN LIBERIA:

- UNICEF
- Save the Children-UK
- Antoinette Tubman Cheshire Home
- SOS Village
- Nursery schools

- Orphanages
- Institutional care
- Day care
- Well-baby clinic
- Nursery schools
- Health facilities
- Facilities for children with special health care needs
- Others

5. CULTURAL NORMS AND INFLUENCES:

- Bush/traditional schools
- Child rearing practices
- Urban migration
- Sexual promiscuity

6. FAMILY HEALTH SERVICES:

- Mental health and social work
- UNICEF
- WHO
- Bilateral AIDS Organization
- Cheshire homes
- SOS village

Unit II | Overview, Growth and Development

1. CONCEPTS AND THEORIES OF GROWTH AND DEVELOPMENT:

- Developmental milestones
- Developmental tasks and special needs
- Growth monitoring
- Role of play in growth and development of children

Semester IV

2. OVERVIEW OF THE TYPES OF GROWTH AND DEVELOPMENT:

- Physical
- Emotional/mental
- Psycho-social
- Cognitive
- Sexual

3. PATTERNS OF GROWTH AND DEVELOPMENT:

- Cephalo-caudal
- Proximal-distal
- Gross motor to fine motor
- The growth sequence

4. STAGES OF GROWTH AND DEVELOPMENT:

- Infant
- Toddler
- Pre-schooler
- School age children
- Adolescent

5. FACTORS INFLUENCING GROWTH AND DEVELOPMENT:

- Genetic
- Nutritional
- Endocrine
- Environmental
- Disease conditions

Unit III | Pediatric Assessment

- 1. OVERVIEW OF CHILD ASSESSMENT**
- 2. TECHNIQUES AND GUIDELINES FOR TAKING AND RECORDING A PEDIATRIC MEDICAL HISTORY**
- 3. PHYSICAL EXAMINATION OF CHILDREN:**
 - Techniques appropriate for each age
 - Privacy and autonomy for each age
- 4. ASSESSMENT OF DEVELOPMENTAL MILESTONES:**
 - Denver Developmental Screening Test (DDST)
 - Others
- 5. NUTRITIONAL ASSESSMENT**
- 6. GROWTH MONITORING AND RECORDING USING ROAD TO HEALTH CHARTS:**
 - Weight
 - Height
 - Head circumference
 - Arm circumference
 - Triceps
 - Skin folds
- 7. INSTRUCTION OF FAMILIES REGARDING THE ROAD TO HEALTH CHARTS**

Unit IV | Pediatric Interventions

- 1. BUILDING TRUST WITH PATIENT AND FAMILY; TRUST IN NURSE AND TRUST IN HEALTH CARE SYSTEM**
- 2. SAFETY MEASURES:**
 - Environmental factors
 - Use of restraints
 - Transporting children

Semester IV

- Limit setting
- Positions for procedures

3. PROCEDURES FOR VITAL SIGNS:

- Temperature
- Blood pressure
- Pulse and respiration
- Precautions and safety measures to be observed
- Recording
- Interpretation of findings:
 - Normal
 - Abnormal

4. ANALYSIS AND INTERPRETATION OF LABORATORY FINDINGS

5. DRUG USE IN PEDIATRIC NURSING:

- General principles
- Common measurements

6. RULES FOR CALCULATING DOSAGE:

- By weight
- By age
- Clark's Formula
- Young's Formula

7. METHODS OF ADMINISTRATION OF MEDICATIONS:

- Oral medications
- Rectal
- Nose, ear and eye drops
- Injections: S.C., I.M., I.V.

8. SAFE AND EFFECTIVE DRUG ADMINISTRATION:

- Checking dosages
- Identification of patient
- Approach to patients and parents
- Recording of drug administration

9. SPECIAL FEEDING TECHNIQUES AND ADMINISTRATION:

- Gavages
- Gastrostomy

10. PLAY AS A NURSING INTERVENTION

Unit V | The Well Child, Under Five

1. PARAMETERS FOR MEASURING GROWTH:

- Head circumference
- Weight and height
- Arm circumference
- Dentition
- Locomotion

2. PSYCHOSOCIAL PARAMETERS:

- Language
- Interactive social skills
- Sensory motor development
- Emotional support
- Effect of separation from significant caretaker
- Development of different modes of play
- Milestones
- Development tasks
- Discipline

Semester IV

- Normal variations in behaviors
- Eating habits

3. FEEDING:

- Cultural feeding practices
- Feeding methods:
 - Breastfeeding
 - Spoon feeding
 - Cup feeding
 - Bottle feeding
- Supplementary foods
- Emphasizing local foods
- Weaning practices and methods
- Simple soft foods
- Cooking to maintain nutritional values of food
- Hygienic cooking practices
- Micronutrients

4. FACTORS INFLUENCING BREASTFEEDING PRACTICES:

- Benefits of breastfeeding
- Emotional support for breastfeeding mothers
- Establishing and maintaining breastfeeding for 2 years
- Handling breastfeeding problems
- Guidelines for starting weaning food

5. SAFETY FOR THE UNDER-FIVE CHILD:

- Safe sleep
- Malaria protection
- Home safety
- Transportation safety

- Water safety
 - Safe storage of toxic substances and medications
 - Prevention of unintentional injury
 - Prevention of intentional injury
 - Promoting the infant and child's mental health
 - Safe parenting practices
 - Effective discipline at each age group
 - Food safety
 - Clean water
- 6. WHEN TO TAKE THE UNDER-FIVE CHILD TO THE DOCTOR/HEALTH CARE PROVIDER: RECOGNIZING SERIOUS ILLNESS OR INJURY**
- 7. HOME CARE OF SIMPLE MILD ILLNESS AND INJURY:**
- Fever management:
 - Recognition of serious fever
 - Management of simple fever
 - Oral rehydration for diarrhea and vomiting

Unit VI | The Well Child, Over Five

1. PARAMETERS FOR MEASURING GROWTH AND DEVELOPMENT:

- Weight and height
- Dentition
- Sexual maturation

2. PSYCHOSOCIAL PARAMETERS:

- Language
- Interactive social skills
- Emotional support
- Development of different modes of play

Semester IV

- Milestones
- Development tasks
- Discipline
- Normal variations in behaviors
- Eating habits
- Self-management of health
- Health care decision-making
- Fitness and obesity prevention
- Prevention of smoking
- Prevention of drug misuse

3. NUTRITION:

- Cultural foods and eating practices
- Emphasizing local foods
- Weaning practices and methods
- Cooking to maintain nutritional values of food
- Hygienic cooking practices
- Micro nutrients

4. SAFETY FOR THE OLDER CHILD:

- Home safety
- Transportation and pedestrian safety
- Water safety
- Safe storage of toxic substances and medications
- Prevention of unintentional injury
- Prevention of intentional injury
- Promoting the older child and adolescent's mental health
- Parenting practices that promote safe independence at each age

- Effective discipline at each age group
 - Food safety
 - Clean water
- 5. WHEN TO TAKE THE OVER-FIVE CHILD TO THE DOCTOR/HEALTH CARE PROVIDER: RECOGNIZING SERIOUS ILLNESS OR INJURY**
- 6. HOME CARE OF SIMPLE MILD ILLNESS AND INJURY:**
- Fever management:
 - Recognition of serious fever
 - Management of simple fever
 - Oral rehydration for diarrhea and vomiting
 - Traumatic injury:
 - First aid
 - What to watch for that requires health care intervention

Unit XI | The School Child 6 Years–12 Years

1. PARAMETERS FOR MONITORING GROWTH:

- Weight
- Height
- Dentition
- Locomotion
- Sexual development

2. COGNITIVE, EMOTIONAL AND SOCIAL DEVELOPMENT:

- Concrete operational stage
- Thinking and reasoning skills
- Language
- Social behavior
- Concepts of time

Semester IV

- Emotional development
- Independency
- Industry
- Bereavement
- Play
- Behavioral characteristics

3. NUTRITIONAL NEEDS:

- Well balanced diets for the growing child
- Eating habits

4. COUNSELING:

- Health education talks and messages
- Visual aids

Unit XII | The Teenager and Adolescent

1. PHYSICAL CHANGES IN PUBERTY INTELLECTUAL AND SOCIAL DEVELOPMENT:

- Rational thinking
- Acceptance by peer group
- Identify
- Conflicts
- Moral development:
 - Idealism

2. PRIVACY:

- Frequent communication
- Channels between parents/guardians
- Balance between freedom and limits
- Earning vs. spending

- Constructive criticism
- Understanding and trust

3. PROBLEMS RELATED TO PUBESCENCE:

- Changes in self-image and identify
- Early or delayed maturation
- Medical problems
- Skin
- Pregnancies/abortions
- Personal changes
- Venereal diseases
- The environment
- Social norms and cultural values
- Education to prevent problems

4. COMMON ACCIDENTS:

- Vehicles
- Injuries
- Fractures
- Drowning
- Overdose of drug and alcohol
- Poisonous bites and sittings
- Preventive measure for the above accidents:
 - First aid

5. WELL BALANCED DIETS:

- Dietary problems
- Anorexia
- Obesity

Semester IV

6. PREMENSTRUAL SYNDROME:

- Rape
- Masturbation
- Suicidal tendencies

7. ADOLESCENT-FRIENDLY HEALTH CARE ENVIRONMENT:

- What it is
- Setting up health facilities to be adolescent friendly
- Adolescent counseling
- Health education

Unit VII | Immunization, Screening, and Health Promotion

1. DEFINITION OF IMMUNIZATION

2. EPI TARGETED DISEASES:

- Diphtheria
- Pertussis
- Tetanus
- Hepatitis B
- Hepatitis A
- Haemophilus Influenza type B
- Poliomyelitis (suspected)
- Tuberculosis
- Measles
- Yellow Fever

3. TYPES OF VACCINES:

- BCG
- OPV
- Measles

- Yellow fever
- DPT-Hep-B-Hib vaccines

4. PURPOSE OF IMMUNIZATION:

- Immunization schedules:
 - Age
 - Type
 - Mode
 - Dosage
 - Time intervals

5. PROCEDURES FOR ADMINISTRATION OF VACCINE:

- Family teaching related to immunizations
- Mode of administration:
 - Intramuscular
 - Subcutaneous
 - Intradermal
 - Oral administration
- Skin preparation (clean water)
- Administration and dosage
- Hand washing

6. CONTRAINDICATION FOR ADMINISTERING VACCINE:

- Adverse events following previous vaccines
- Immunization (AEFI)

7. SIDE EFFECTS OF VACCINE:

- Side effects/complication
- Management
- Adverse effects following immunization (AEFI)

Semester IV

8. ADMINISTRATION OF VACCINE PROGRAM: STORAGE, DISPOSAL, RECORDS AND EVALUATION:

- Cold chain
- Ordering of vaccine
- Distribution of vaccines
- Record keeping
- Expiration date
- Disposal of equipment
- Supervision, monitoring and evaluation
- Ordering of vaccine
- VVM

9. PLANNING IMMUNIZATION AND HEALTH PROMOTION SESSIONS:

- Routine
- Supplemental immunization activities
- De-worming
- Vitamin-A supplements
- Screening for vitamin and mineral deficiencies
- Vaccinations
- Developmental surveillance and anticipatory guidance

Pediatrics Nursing Clinical Description

This course will help the learner enhance the skills and knowledge drawn from Fundamentals of Nursing clinical experiences while working with sick/well children and their families in the hospital and community setting.

Clinical Objectives:

- Develop individualized nursing care plans
- Deliver appropriate nursing care to the pediatric client based on diagnosis age and developmental stage
- Work effectively with other members of the health team to improve care of children and their families
- Educate the client and family about available support that can help with difficulties concerning child diagnosis and treatment
- Uses relevant cultural norms and practices to communicate with clients, families and team
- Demonstrate good documentation of patient care

Clinical Skills:

- Admitting a child
- Bathing a child
- Calculating pediatric drug dosages and IV fluids
- Administering oxygen
- Inserting naso-gastric tube
- Inserting urine catheter
- Preparing a child for surgery
- Making beds for pediatric clients
- Preparing care plans for pediatric clients

Clinical Placement:

- Pediatric Units
- Outpatient Departments

Semester IV

- Clinics
- Health centers
- Schools (primary and secondary)

Competencies

Knowledge	Attitudes/Behaviors	Skills
Uses knowledge from nursing, health and other disciplines combined with best available evidence to explain nursing decisions and interventions	Values the importance of nursing data to improve nursing practice	Individually, or as a member of a group, uses information effectively to accomplish a specific nursing purpose
Demonstrates understanding of the diversity of the human condition	Values the inherent worth and uniqueness of individuals and populations	Provides holistic care that addresses the needs of diverse populations across the life span Understands the effects of health and social policies on persons from diverse backgrounds
Explains the role of evidence in determining best clinical practice	Questions the rationale of supporting routine approaches to care processes and decisions Values the need for continuous improvement in clinical practice based on new knowledge	Facilitates integration of new evidence into standards of practice, policies, and nursing practice guidelines
Understands that care and services are delivered in a variety of settings along a continuum of care that can be accessed at any point	Values assessing health care situations “through patient’s eyes”	Assesses patient values, preferences, decisional capacity, and expressed needs as part of ongoing assessment, clinical interview, implementation of care plan, and evaluation of care
Understands that legal, political, regulatory and economic factors influence the delivery of patient care	Appreciates that legal, political, regulatory and economic factors influence the delivery of patient care Values the need to remain informed of how legal, political, regulatory, and economic factors impact professional nursing practice	Provides care based on current legal, political, regulatory, and economic requirements Articulates issues at the work unit level that impact care delivery
Differentiates clinical opinion from research and evidence summaries	Appreciates that the strength and relevance of evidence should be determinants when choosing clinical interventions	Applies original research and evidence reports related to area of practice Contributes to the integration of best current evidence into Microsystems practices

Knowledge	Attitudes/Behaviors	Skills
Identifies contributions of other individuals and groups in helping patients and families achieve health goals	Respects the centrality of the patient and family as core members of any health care team	Participates in the use of quality indicators and core measures to evaluate the effect of changes in the delivery of care
Identifies leadership skills essential to the practice of nursing	Recognizes the role of the nurse as leader	Assumes the role of team member or leader based on the situation

Teaching learning strategies

- Lectures/discussions
- Small group work
- Case study
- Self-directed learning
- Simulations

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

References:

Adele Pilliteri, 2010. Maternal And Child Health Nursing: Care of the Childbearing and Childrearing Family.

Catherine E. Burns et al, 2012, Paediatric Primary Care, 5th.

Marilyn Hockenberry, 2012. Wong's Essentials Of Paediatric Nursing, 9th Edition. C.V. Mosby Co. St. Louis.

Pocket Book of Hospital Care for Children: Guidelines for the Management of Common Illness.

Road to Health Chart.

Child health Nursing; Partnering with Children & Families, J. Ball, R. Bindler, and K. Cowen, 2010.

AMREF, Child Health.

Semester IV

Assessment:

- Written exams
- Clinical logs
- Case presentations
- Reflective diary
- OSCE
- Checklists
- Care plans

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Semester V | Course Outline

Leadership and Management

Psychiatric Mental Health Nursing II

Simplified Diagnosis and Treatment

Introduction to Research

Pediatric Nursing II

Course Title: Nursing Administration (Leadership and Management)

Credits:

3

Placement:

First semester of third year

Duration:

16 weeks (14 instructional and 2 for exam)

42 hours classroom

126 hours clinical

Prerequisites:

Basic English & Math, ICT, Fundamentals of Nursing I & II, PHC I & II

Introduction/Course Description:

Nursing Leadership and Management is a course that prepares the student to become a nurse leader, a professional supporting and improving systems for managing supplies and an advocate for clients and family rights. It also equips the learner with the knowledge, skills and attitudes to promote quality health services at all levels. This course will enhance the student's ability to problem-solve, make decisions and act on policies and regulations.

Broad Objectives:

As a result of this course, the student will:

- Develop critical thinking and problem solving skills
- Have an understanding of public health policy formulation process, the impact of the policy on service delivery and the role of nursing to the national health agenda
- Apply appropriate knowledge, skills and attitude in managing nursing services, especially at the clinic level. to advocate for self, co-workers and patients
- Apply an understanding of financial resource management, planning and communicating with support systems skills for effective implementation of quality improvement initiatives, especially in nursing services
- Apply principles and theories for effective health information system for decision-making, including data management, monitoring and evaluation, and utilize health information to inform decision-making
- Apply human resource management principles and theories related to delegation, allocation, supervision of personnel, staff performance appraisal methods and estimating human and physical resources needed in a health facility

Semester V

- Have an understanding of management and leadership skills essential in a clinical practical setting

Specific Objectives:

At the end of this course, the learner will be able to:

- Describe the four major functions of management and activities involve in each
- Describe Leadership concepts essential for professional practice
- Discuss human resource management within the legal framework of governing labor practice in the health sector
- Explain the importance of an effective working team and environment through effective communication between patients, nursing and other health care personnel.
- Outline the human resource management, principles and theories related to delegation, allocation and supervision of personnel
- Describe financial resources management informed by understanding of issues prevailing in the specific health care system and/or service
- Describe staff performance appraisal methods based on institutional policy and recognized criteria for performance appraisal
- Apply quality improvement initiatives in nursing and midwifery services
- Describe fundamentals of monitoring and evaluation in the provision of care
- Apply management audit principles to evaluate nursing activities
- Discuss the health care organization systems
- Discuss the process for formulation of public health policy, the impact of the policy on service delivery and the role of nursing and midwifery to the national health agenda

Course Content:

Unit I | A New Approach to Leadership and Management

1. INTRODUCTION TO MANAGEMENT AND MANAGEMENT DECISION-MAKING:

- Philosophy: principles and theories of management
- Management theories
- Fundamentals of leadership
- Styles
- Management theories applicable to health sector
- Change management
- Strategic planning
- Major management functions:
 - Planning – types of plan (operational, tactical, strategic, long-term, short-term, etc.); characteristics of a good plan; decision-making process
 - Organizing – structure/design of organizations; staffing; interdepartmental
 - Directing – leadership, delegation of responsibility, authority, supervision and accountability, motivation, team work communication, coordination and delegating
 - Controlling – establishment of standards, job performance evaluation, discipline, financial control – accounting and budgeting
 - Leadership and professional practice
 - Supportive working environment

2. EFFECTIVE COMMUNICATION BETWEEN PATIENTS, DOCTORS, MIDWIVES AND NURSES

3. DECISION-MAKING, PROBLEM SOLVING AND CRITICAL THINKING:

- Decision-making process
- Principles in making a decision

4. HUMAN RESOURCE MANAGEMENT:

- Recruitment of personnel
- Delegation
- Supervision and follow-up of personnel

Semester V

- Working as a team
- Motivation
- Ethics in health care management
- Conflict management
- Staff development/continuing education/in-service education
- Staff appraisal
- Professional associations and regulatory agencies – composition and functions
- Leading and coaching the professional team

5. MANAGEMENT SUPPORT SYSTEM:

- Drugs and medical supplies:
 - Ordering/procurement
 - Usage
 - Protection and storage
 - Inventory
 - Problems
 - Revolving drug fund
- General supplies:
 - Sources
 - Purchase
 - Receiving supply orders
 - Recording-keeping and reporting
- Financial management/money:
 - Budgeting process:
 - Managing budgets
 - Resource allocation
 - Accounting
 - Revenue
 - Procurement

6. MANAGEMENT OF OTHER RESOURCES:

- Time
- Space – land, buildings and infrastructure
- Facilities and equipment maintenance:
 - Proper use of facilities and equipment
 - Preventive maintenance
 - Repairs inventory facilities and equipment
 - Reporting loss, theft or damage
- Transportation:
 - Resources
 - Transportation needs
 - Emergency
 - Transportation plans

7. CONCEPTS AND ISSUES:

- Communication and group dynamics
- The health team
- Communication participation
- Inter-sectorial and interdisciplinary collaboration
- Health insurance scheme
- Reforms in nursing education and practice
- Professional associations and regulatory agencies – composition and functions
- Continuing education – conferences, seminars, workshops, etc.

8. HEALTH INFORMATION MANAGEMENT SYSTEM, MONITORING AND EVALUATION:

- Data management:
 - Collection
 - Entry
 - Analysis

Semester V

- Reporting
- Monitoring and evaluation:
 - Principles
 - Purpose
 - Importance of
 - The process
 - Indicators
- Management audit
- Evaluation techniques

Unit II | Ethics, Policies and Advocacy

1. PUBLIC HEALTH POLICY:

- Public health policy formulation
- Policy analysis
- Policy implementation
- Policy implementation monitoring
- Policy evaluation
- MOHSW policies
- Ethics in leadership

2. ADVOCACY:

- Definition
- Process

3. QUALITY IMPROVEMENT:

- Definition
- Quality improvement concepts:
 - Dimension of quality
 - Perception of quality

- Quality Improvement Process:
 - Standards-Based Management and Recognition
- Risk management

Unit IV | Roles and Functions in Organizing

1. ORGANIZATION OF WORK AT THE HEALTH CENTER:

- Division of work location
- Movement of health workers
- Movement of patient
- Use of manpower
- Building
- Space
- Equipment
- Provision of services in limited space and resources

2. HEALTH INFORMATION:

- Uses of health information
- Types of health information records
- Reports
- Filing and retrieving data
- Monitoring and evaluation

Unit V | Roles and Functions in Staffing

1. PERSONNEL:

- Recruitment and selection
- Performance evaluation
- Managing conflict
- Handling grievances

Semester V

- Disciplinary action

2. FUNCTIONS OF MID-LEVEL HEALTH WORKERS:

- Job descriptions
- Modifying JDs to meet community needs

Unit VI | Roles and Functions in Directing

1. DEVELOPING LEADERSHIP:

- Democratic
- Autocratic
- Laissez faire
- Transformation leadership

2. ATTITUDES INFLUENCING LEADERSHIP (CULTURAL, SOCIO-ECONOMIC, POLITICAL FACTORS)

3. CHARACTERISTICS OF GOOD LEADERS

4. FUNCTIONS OF THE TEAM:

- Roles of team leaders versus team members
- How team functions
- Group dynamics

5. FACTORS PROMOTING MOTIVATION AND DE-MOTIVATION (LINKS WITH SBM-R):

- Supervision
- Motivators:
 - Incentives
 - Job satisfaction
 - Good interpersonal relationship
 - Career ladder
 - Continuing education
 - Conducive working environment

- Capacity building
- De-motivators:
 - Low salary and benefits
 - Poor working conditions
 - Lack of opportunities for professional development
 - Ambiguous policies
 - Authoritarian system of administration

Unit VII | Health Care Organization Systems

1. THE HEALTH CARE SYSTEM ORGANIZATIONAL CLIMATE AND CULTURE OF THE HEALTH CARE SYSTEM, MISSION STATEMENT, POLICIES AND PROCEDURES

2. DECENTRALIZATION AND SHARED GOVERNANCE:

- Data management and information
- Strategic management and marketing
- Care management
- Models of care delivery
- Case management
- Disease management
- Patient and family cultural value
- Communication, persuasion and negotiation
- All hazard disaster preparedness
- Evidenced based practice: strategies for nursing leaders

3. HUMAN RESOURCE MANAGEMENT:

- Recruitment of personnel
- Delegation
- Supervision and follow-up of personnel
- Motivation

Semester V

- Ethics in health care management
- Conflict management
- Staff appraisal

4. LEADING AND COACHING THE PROFESSIONAL TEAM:

- Motivation
- Power and conflict
- Delegation
- Team building and working with effective groups

5. CONFRONTING SHORTING, CULTURAL AND GENERATIONAL WORKFORCE DIVERSITY:

- Staff recruitment and retention
- Performance appraisal
- Prevention of work place violence
- Collective bargaining
- Staffing and scheduling

6. FISCAL MANAGEMENT:

- Financial management
- Budgeting
- Productivity and costing out nursing

7. MANAGEMENT OF THE HEALTH FACILITY:

- Introduction and overview
- Definition and principles
- MOHSW policy on drugs and supplies
- Management principles:
 - Main functions of management
- Planning
- Implementation

- Evaluation
 - Organization
 - Communication
 - Controlling and assessing the work
 - Recruitment, selection and orientation
 - Training
 - Scheduling
 - Posting and transferring
 - Promotion
 - Resignation
 - Leave procedures
 - Performance evaluation
 - Disciplinary action
 - Grievances
 - Facilities and equipment
 - Operating, maintaining and repairing facilities and equipment
 - Transportation
 - Finance
 - Revenue
 - Expenditures
 - Drugs and medical supplies
 - Storage and protection
 - Inventory and data collection
 - Management information system/reporting
- 8. OUTCOME MANAGEMENT:**
- Change and innovation

Semester V

- Quality improvement and health care safety
- Measuring and managing outcome

Unit VIII | Public Health Policy Formulation

- Public health policy formulation
- Policy analysis
- Policy implementation
- Policy implementation monitoring
- Policy evaluation

Leadership and Management Clinical Course Description

This course is designed to enable the learner to acquire attitudes and skills necessary for health services management. The focus will be on developing competencies in problem-solving, decision-making, resource management, policy analysis and interpretation, change initiation, performance appraisal and quality improvement. This course will also help the learner to monitor and evaluate nursing practice.

Clinical Objectives:

At the end of this course, the learner will be able to:

- Demonstrate ability to lead and manage multidisciplinary teams
- Demonstrate competency in managing human resource in line with country's legal framework and labor practices within the health sector
- Demonstrate ability to create positive working environment through effective communication
- Delegate, supervise, direct and control personnel in carrying out their roles in achieving patient care goals
- Manage financial and other health care resources based on informed understanding of issues prevailing in the specific health care system and/or service
- Appraise staff performance based on institutional policy and recognized criteria for performance appraisal
- Apply the fundamentals of monitoring and evaluation in the provision of care
- Demonstrate ability to lead and manage change in health care practice with the aim of improving quality of care
- Facilitate self and personnel continuous professional development
- Demonstrate collaborative skills with multi-disciplinary health care providers, clients, and nursing leaders to promote health for individuals, families, and groups

Clinical Placement:

- Hospital wards (stations)
- Nursing Director's office
- Outpatient department
- Hospital administration

Semester V

- Community health department

Clinical Skills:

- Documenting and reporting
- Writing reports and proposals
- Chairing staff meetings
- Supervising and evaluating
- Budgeting
- Making rounds
- Taking inventories

Competencies

Knowledge	Attitudes/Behaviors	Skills
Identifies leadership skills essential to the practice of midwifery	Recognizes the role of the midwife as leader	Integrates leadership skills of systems thinking, communication, and facilitating change in meeting patient care needs
Understands human behavior, mental processes, and individual and group performance Identifies the roles and skills of the health care team	Recognizes the centrality of a multidisciplinary team approach to patient care Values the perspectives and expertise of each member of the health care team	Demonstrates ability to effectively participate in multidisciplinary teams Promotes a productive culture by valuing individuals and their contributions Models effective communication and promotes cooperative behaviors Shows tolerance for different viewpoints
Understands the principles of accountability and delegation	Recognizes the value of delegation Accepts accountability for care given by self and delegated to others Accepts accountability and responsibility for one's own professional judgment and actions	Participates in the change process to improve patient care, the work environment, and patient and staff satisfaction Assigns, directs, and supervises ancillary personnel and support staff in carrying out particular roles/functions aimed at achieving patient care goals and the principles of accountability

Teaching/Learning Strategies:

- Lectures
- Classroom presentations
- Role plays
- Group exercises
- Educational games
- Case studies
- Demonstration
- Coaching
- Reflective diaries
- Homework and laboratory assignments

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Required Resources:

- Learning exercises
- Journal
- Clinical practicum for leadership rotation
- Feedback form from clinical preceptor (see ETS manual for examples)

References:

Yoder-Wise, Patricia, *Leading and Managing in Nursing*. 3rd edition. Mosby, 2000. Kelly-Heidenthal, Patricia, *Nursing Leadership and Management*. Delmar-Thompson, 2003.

Swansburg, R. and Swansburg, R. *Introduction to Management and Leadership for Nurse Managers*. 3rd Edition. Jones and Bartlett Publishers. 2002.

Tappen, R., Weiss, S., Whitehead, D. *Essentials of Nursing Leadership and Management*. 3rd Ed. 2004. F.A. Davis, Philadelphia.

Semester V

Treas, L. Editor. *Nursing Leadership and Management*.3.1 Ed.ATI. Kansas. 2006.

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Psychiatric Mental Health Nursing II

Credits:

3

Placement:

First semester in third year

Duration:

16 weeks (14 instructional and 2 exams)

42 hours classroom

42 hours clinical

Prerequisites:

Basic English & Math, ICT, Fundamentals of Nursing I & II, PHC I & II, Health Assessment, OB/GYN I & II, Pediatrics I, Tropical/Communicable Diseases

Introduction/Course Description:

This course builds on Psychiatric Mental Health Nursing Part I and focuses on the basic psychopathology of selected mental disorders and the theories and principles underlying nursing care of clients with these alterations in mental health status.

Selected major psychiatric diagnoses will be defined, described and discussed in terms of their etiology, clinical manifestations, screening tools, approaches to treatment, and nursing intervention. Assessment of patients with mental health/psychiatric disorders is conducted using the nursing process and primary health care approach. It is taught along with relevant management modalities, requisite interpersonal skills and attitudes necessary for the learner to act as a therapeutic agent. The course will enable the learner to develop competencies in using the Diagnostic Statistical Manual for Mental Disorders, Version Four revised text (DSM IV-TR) multi-axial diagnosis approach; and in evaluating factors in the individual, family or community that hinder or promote achievement of optimal mental health. Psychiatric nursing interventions will be emphasized throughout the course.

Broad Objectives:

By the end of this course, the student will be able to:

- Describe medical treatment and therapies designed to influence the course of specific disease processes and psychological alterations
- Describe effective treatments for each selected disorder, including evidence-based psychotherapy, and doses, side effects, and drug interactions for individual medications
- Make analyses based on problem-solving and decision-making principles to make nursing decisions for clients with mental illness in selected care situations

Semester V

- Demonstrate accountability in providing nursing care by maintaining standards of psychiatric-mental health nursing practice and adhering to the professional values of nursing
- Use critical self-evaluation of strengths and areas for improvement in the practice of psychiatric nursing
- Evaluate community resources for individuals and families for mental health promotion, maintenance and restoration
- Use principles of patient safety and quality of care to guide nursing actions for patients with mental illness and their families
- Discuss the relationships among psychiatric disorders, STIs/AIDS and epilepsy

Specific Objectives:

- Identify the clinical manifestations and diagnostic criteria for psychiatric disorders
- Utilized appropriate screening tools for screening for depression
- Describe signs and symptoms of postpartum psychosis
- Describe the management of selected psychiatric disorders
- Describe treatment regimen for selected psychiatric disorders
- Identify signs and symptoms of anxiety disorders
- Utilized the GAD 7 to screen for anxiety disorders
- Name the four characteristics of post-traumatic stress disorder (PTSD)
- Discuss management of PTSD
- Define psychosis
- Describe the causes of postpartum psychosis
- Describe the Edinburgh Postnatal Depression Scale use to screen for postpartum psychosis
- Describe the immediate care and management of a patient with postpartum psychoses
- Describe preventive measures for postpartum psychosis

Course Content:

Unit I | Overview of Mental Health and Mental Illness (Psychiatric Disorders)

1. PSYCHIATRIC DISORDERS:

- Psychiatric assessment
- Classification and diagnosis of psychiatric disorders
- Neuroses differentiated from psychoses:
 - Depression:
 - Definition
 - Causes:
 - Stressful or traumatic life events
 - Poverty or loss of employment
 - Signs and symptoms:
 - Low mood or loss of interest
 - Low energy/ general inactivity
 - Changes in appetite, weight, or sleep pattern
 - Feelings of guilt or worthlessness
 - Little or no facial expression
 - Bad self-care
 - Suicidal ideas
 - Illnesses, headaches
 - Loss of concentration or difficulties making a decision
 - Recurring thoughts about death, either the wish to die or fear of dying
 - Crying frequently
 - Withdrawing from others (social isolation)
 - Neglecting personal appearance
 - Stooped posture or dejected facial expressions
 - Diagnosing moderate or severe depression
 - The patient must have all of the following:
 - A. At least 2 of the following 3 symptoms:**
 - Depressed mood (and/or irritability in a child) most of the day, almost every day
 - Loss of interest or pleasure in activities normally pleasurable

Semester V

- Decreased energy/becoming fatigued easily/always feeling fatigued

B. At least 3 of the following symptoms in the past 2 weeks:

- Decreased concentration and attention
- Decreased self-esteem and confidence
- Feeling of guilt and worthlessness
- Bleak and pessimistic view of the future
- Not sleeping well (disturbed sleep)
- Decreased appetite (eating too little), or eating too much
- Thoughts of self-harm or suicide

C. Difficulty carrying out usual activities at work, school, home & social situations

- If the answer is “Yes” to all 3—A, B, & C—the person probably has Moderate or Severe Depression.
- If the answer is “Yes” to only 1 or 2 of the three—the person may still be depressed, but not as severely.

Screening tools PHQ9 (modified to Liberian English by Tiyatien Health)

Explain to the patient, “We are going to ask you some questions that will help us know how we can help you. When you answer, we would like you to think about **ONLY** the past **TWO** weeks, even if your problems have lasted for much longer.” Then ask the following questions:

Since the Past 2 Weeks	Never	Few Times	Plenty Times	Nearly Every Day
1. Have you been feeling not happy when you are doing things? or Have you been feeling your heart can't be there to do anything?	0	1	2	3
2. Have you been feeling down-hearted, overloaded, or like you are having no hopes?	0	1	2	3
3. Have you had trouble falling asleep, staying asleep, or sleeping over-plus?	0	1	2	3
4. Have you been feeling weak or tired, or like you have little strength when working?	0	1	2	3
5. Do you sometimes feel like you can't eat? Or do you sometimes eat over-plus?	0	1	2	3
6. Do you ever feel bad about yourself, or ashamed of your problems? or Do you feel that nothing good will come out of you?	0	1	2	3
7. Do you sometimes only complete your work half-way because you are thinking plenty? or Do you feel like your mind can't be there when doing your housework?	0	1	2	3

Since the Past 2 Weeks	Never	Few Times	Plenty Times	Nearly Every Day
8. Have people noticed that you are moving and talking very slowly? [GIVE TIME TO ANSWER] Have they noticed the opposite—that you are too active, so that you are moving around without doing anything?	0	1	2	3
9. Do you sometimes think it is better that you die, or think of doing harm to yourself?	0	1	2	3
Add the scores from each question for Total Score: _____	=__	+__	+__	+__

Original source of PHQ-9—Spitzer R, Kroenke K, Williams J, et.al. with an educational grant from Pfizer, in PRIME MD TODAY, 1999. Copyright Pfizer, Inc. Tiyatien Health contributors to Liberian version—Danielle Alkov, Matt Burkey, Othello Davis, Moses Gramoe, Bent Grant, Katie Kentoffio, Patrick Lee, Tina Mouwan, Amisha Raja, Hemali Thakkar, & Kalisa Yesero.

Score interpretation: (Range: 0–27)

0–4 = No depression

5–14 = Possible depression requiring support and education—Treat if you have had some training, or refer to a Mental Health Clinician

15+ = Very likely severe depression requiring medication, support, and education—it is best to refer this patient immediately to a Mental Health Clinician.

Functional Impairment Tool

Now ask: How hard have you found it to do some of your work, to do your housework, to take care of your children, or to go around your friends and family because of these problems?	Not Hard	Hard Small	Very Hard
Functional Impairment	No	Small	Yes

If the total PHQ-9 score > 17, & functional impairment also is definitely present, refer the patient to a mental health clinician for treatment.

2. MANAGEMENT:

- Manage comorbidities-- Now look for physical illnesses which occur frequently with depression (in some cases even cause it). Take a good history and do a physical examination. Common co-morbid illnesses are:
 - Hypothyroidism (also a cause of depression)
 - Anemia
 - Cancer
 - Stroke
 - Hypertension (sometimes with headache)
 - Diabetes
 - HIV

Semester V

- Alcoholism
- In addition to treating depression, also treat any co-morbid illnesses. Note some drugs such as steroids may also cause depression.
 - **Educate** the patient and caretakers about the causes, symptoms, effects, treatment, and usual course of depression.
 - Assure and reassure the patient that depression can be treated and usually improves.
 - **Look for stressful situations** (psychosocial stressors) which may have brought on the depression. Discuss them & help the patient to choose possible ways to resolve them.
 - **Encourage physical activity**—physical activity decreases depression.
 - **Encourage the patient to become socially active again**—with members of his own household and with others with whom he previously liked to spend time.
 - **TREATMENT:** Although it is best to send patients to a Mental Health Clinician, who has been trained to care for depression and has training in the proper use of medications and medication side-effects, it is not always possible. If you have not been trained as a Mental Health Clinician and must treat the patient in your clinic, do the following:
 - For moderate or severe depression, or mildly depressed patients not improving in 6–8 weeks, a clinician may **prescribe an antidepressant** such as one of these below:
 - **FLUOXETINE** 20 mg. caps-Stat with 1 daily; if no improvement within 4 weeks, may increase to 40 mg. This is an SSRI (Selective Serotonin Reuptake Inhibitor)—SSRI's generally have milder side-effects than the tricyclic anti-depressants. A few patients may experience headache, nausea, diarrhea, or nervousness. **This is the anti-depressant of choice**—if the patient takes a few too many he usually will not die.
 - **AMITRIPTYLINE** 25 mg. tablets (tricyclic anti-depressant)—Stat with 50 to 75 mg. h.s., or 25 mg. t.i.d. If not improving may increase gradually to 150 mg. total per day. Tricyclics cause a very dry mouth and increased heart rate, and may cause CNS stimulation, heart arrhythmias, nausea and hypertension. A patient can die with an overdose. Amitriptyline may cause a drier mouth than imipramine and often causes drowsiness—therefore it is best given h.s.
 - **IMIPRAMINE** 25 mg. tablets (tricyclic anti-depressant)—Start with 25 mg. t.i.d. (or 75 mg. h.s.). If not improving may increase gradually to 50 mg. t.i.d. (150 mg./day total). Imipramine has the same adverse effects as amitriptyline although drowsiness may not be quite as severe.

- CAUTION:

- All tricyclics and SSRI's must never be given within 2–4 weeks of an MAO inhibitor such as phenelzine (Nardil) or tranylcypromine (Parnate)—death may occur.
- As lethargy decreases in depressed patients on anti-depressants during the first month of treatment, a patient feeling life isn't worth living may find he has gained sufficient energy to commit suicide. Watch all depressed patients carefully especially during the first 4–6 weeks to prevent this.
- It may take up to 1 month for the depressed patient to start improving with antidepressants. Sometimes the dose has to be increased. Treatment usually should continue for at least 6 months after the patient starts to improve to prevent a relapse. See the patient weekly for the first month. A depressed patient can become suicidal.
- Be sure the patient is not planning suicide –Talk with the patient to find out. If so, he should be hospitalized (preferably at Grant). Suicides are more frequent in the first 4–6 weeks of treatment. If hospitalization is not possible, the relatives should closely watch him and he should be placed on Fluoxetine and be seen by you at least weekly.

3. ANXIETY DISORDERS:

- Description
- Causes:
 - Stressful life events
 - Trauma
- Signs and symptoms:
 - Increase palpitations
 - A feeling of suffocation
 - Dizziness or headaches
 - Sweating
 - Trembling or shaking all over
 - Loss of appetite
 - Sleeping disorders
 - Intense fear, nervousness, or worry
 - Difficulty concentrating
 - Thoughts of dying, losing control, or going mad

Semester V

- Repeatedly thinking the same distressing thoughts again and again despite efforts to stop thinking them
- Going out of their way to avoid situations that cause fear
- Nervous
- Cannot sleep well
- Sometimes headache, heartburn, epigastric pain, or belching
- Ask:
 - When did the symptoms begin?
 - How severe are they?
 - Have you had previous treatment?
 - Do you have pain?
 - Any headache, heartburn, epigastric pain or belching?
 - Any recent very stressful situations?
 - Any history of significant trauma?
- **Take** the blood pressure, pulse, temperature and weight. Look for other possible illnesses causing the symptoms:
- **Check:** Is the patient pale? (anemia causing the symptoms)
 - Does the patient have distended neck veins, large liver, shortness-of-breath, and ankle edema? (congestive heart failure causing anxiety)
 - Is the stool black? (bleeding ulcer causing anemia)
 - Bulging eyes and rapid pulse? (hyperthyroidism)
- Diagnosis

Generalized Anxiety Disorder 7-item (GAD-7) scale

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all	Several days	Over half the days	Nearly every day
Feeling nervous, anxious, or on edge	1	2	3	4
Not being able to stop or control worrying	1	2	3	4
Worrying too much about different things	1	2	3	4
Trouble relaxing	1	2	3	4
Being so restless that it's hard to sit still	1	2	3	4
Becoming easily annoyed or irritable	1	2	3	4
Feeling afraid as if something awful might happen	1	2	3	4

Original Source: Spitzer R, Kroenke K, Williams J, Lowe B. A brief measure for assessing generalized anxiety disorder. The GAD-7. Arch Int Med. 2006; 166:1092-1097. Copyright (2006) American Medical Association.

Interpretation of GAD-7:

- Scores: 0–4: No anxiety disorder
- 5–9: Likely a Mild anxiety disorder
- 1–14: Likely a Moderate anxiety disorder
- 15–21: Severe anxiety disorder

Now choose the correct group below: Be sure the patient only has anxiety--not some illness listed below making him feel anxious--get a good general medical history.

Nervousness/feeling anxious with:

Complaints and Observations	Assessment	Plan of Treatment
Right upper abdominal pain, black stool, and looking pale	Peptic ulcer with anemia	Refer to hospital (with IV Ringer's if low BP--hold systolic BP at 80–90)
Looking pale and pulse above 92 (Check Hgb. to prove anemia and severity)	Anxiety from anemia	Refer to hospital if severe anemia
Distended neck veins and edema, short of breath	Congestive heart failure	Give Hydrochlorothiazide 50 mg. and refer to hospital
Enlarged thyroid with bulging eyes, fast pulse	Toxic goiter	Refer to hospital
Nervous, headache and high BP	Hypertension	HTN in chronic diseases
Nervous and anxious, otherwise well, not pale, no edema, normal pulse and BP	Anxiety (may be chronic)	Do the GAD-7 screen helps identify anxiety and its severity

4. TREATMENT OF CHRONIC ANXIETY:

- Counseling (including identifying triggers which may have caused the patient's anxiety, and helping the patient identify steps to take to solve anxiety-causing problems)
- Minor tranquilizing drugs, such as diazepam 5 mg. t.i.d. given for 3 to 5 days only, are helpful when anxiety is most severe. (Avoid long-term use which may cause addiction.)
- But really consider referring the patient to a Mental Health Clinician—they have been trained to appropriately treat problems such as this.
- With the “Open Mole” syndrome, traditional medicine also often succeeds in getting the patient to improve.
- TRADITIONAL MEDICINE -- the ADULT "OPEN MOLD" SYNDROME (Pronounced “Open Mole”)

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- “Open Mole” in adults refers to what Western doctors would call a severe form of chronic anxiety. Tribal healers recognize this group of symptoms as a specific illness and believe it is caused by the anterior or the posterior fontanel of the skull opening again in adults. This is believed to be very serious if untreated, but well within the capabilities of tribal medicine to cure. The traditional healer examines the patient's scalp, and if he finds an indentation in the appropriate position in the skull of such a patient, he makes the "diagnosis". In the Lofa Co. area a 1-1/2-inch-wide strip of hair is shaved over the sagittal suture, and a sticky black "medicine" with leaves is applied to this strip of shaved scalp. The patient feels immediate relief because someone has finally "discovered the cause" of his illness and because the tribal healers have a good reputation for curing it. With time, reassurance, faith in the healer, and further applications of the sticky black "medicine" the patient usually slowly improves. X-rays will show that no opening of the sutures of the skull or the fontanel has actually taken place. Usually the person who believes he has an Open Mole will refuse medical treatment and insist on traditional medicine.

5. POST TRAUMATIC STRESS DISORDER:

- Description:
 - **Post:** after, following
 - **Trauma:** pain, hurt, shock, injured, wound
 - **Stress:** exhausted, depressed, burdened, worry, tension
 - **Disorder:** abnormal, unbalance, uneasy
- Four characteristics of PTSD according to Van de Keelk (1987):
 - A surprising occurrence
 - Of piercing intensity
 - That is outside the range of human experience
 - Frightens almost anyone
- Causes:
 - The patient was involved in, witness to, or confronted by one or more life threatening events
- Signs and symptoms of PTSD:
 - Flash back
 - Avoidance
- Hyper-vigilant:
 - They have no show of motivation

- They cannot concentrate
- They experience hopelessness – no hope for the future
- They show lack of interest in activities and other people
- They become chronically irritable and easily become angry and violent
- They become pre-occupied with the traumatic experience
- They procrastinate
- They have difficulty making decisions
- They become rebellious - and do the obviously wrong things
- Even a little sound can excite or make them afraid
- They may be unable to sleep
- They may try to avoid people or places associated with the trauma
- Students do not do well in school
- They develop psychosomatic illnesses (such as headache, stomach or other body aches), high blood pressure, or may complain of open mole
- They easily become tired
- Changes in emotions, appetite, sexual drive, sleep pattern
- Diagnosis

Trauma Screening Questionnaire (TSQ) for helping identify PTSD

Ask the following 10 questions. A “yes” response to 6 or more indicates a very strong possibility of the client having PTSD.(It is best to wait at least 3 weeks after the event before administering the TSQ.)

In the last 2 weeks, have you had (or have you been):	Yes, at least twice in the past week	No
Upsetting thoughts or memories about the event that have come into your mind against your will?		
Upsetting dreams about the event?		
Acting or feeling as if the event were happening again?		
Feeling upset by things that remind you of the event?		
Body reactions (such as fast heartbeat, stomach churning, sweating or feeling dizzy) when reminded of the event?		
Difficulty falling asleep or staying asleep?		
Irritability, or outbursts of anger?		
Difficulty concentrating?		

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In the last 2 weeks, have you had (or have you been):	Yes, at least twice in the past week	No
Feeling much more aware of possible dangers to yourself and others?		
Being jumpy or startled at something unexpected?		

Original Source: Brewin, C.R., et.al. (2002) Brief Screening Instrument for post-traumatic stress disorder. British Journal of Psychiatry, 181, 158-162.

The PC-PTSD is a 4-item screen Designed for use in primary care and other medical setting Currently used to screen for PTSD in veterans at the VA.

Instructions

In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you:	Yes or No
Have had nightmares (bad dreams) about it or thought about it when you did not want to?	Yes/No
Tried hard not to think about it or went out of your way to avoid situations that reminded you of it?	Yes/No
Were constantly on guard, watchful, or easily startled (jumpy)?	Yes/No
Felt numb (no feelings) or detached from others, do not want to take part in activities in your community, church, mosque, school, or your surroundings?	Yes/No

Prins, Ouimette, Kimerling et al., 2003

- Interpretation:
 - The authors suggest that in most circumstances the results of the PC-PTSD should be considered "positive" if a patient answers "yes" to any 3 items.
 - Those screening positive should then be assessed with a structured interview for PTSD.
 - Current research suggests that the results of the PC-PTSD should be considered "positive" if a patient answers "yes" to any three items.
- Management:
 - Try to establish a cordial relationship with the patient as much as possible
 - Observe good listening techniques—listening, showing interest, and being empathetic is very important
 - Provide psychological first aid (PFA) for all who have experienced any trauma
 - Listen as they would like you to
 - Provide privacy for talking with the person
 - Encourage individuals to identify small steps toward recovery (such steps as seem appropriate for each person) & to take those steps as much as they can
 - Assess the client's level of understanding of "Post Traumatic Stress Disorder"

- Teach about the disorder
- Explore with the client what situations give the most unfavorable feelings
- Explore what they enjoy doing with less stress
- Consider using **anti-depressants** to treat significant symptoms of **anxiety** and/or **depression**--such as **Fluoxetine 20 mg. daily**
- See the patient again every 2 – 4 weeks to listen and give further encouragement, and to monitor symptoms and effectiveness of treatment
- May give **diazepam 5 mg. t.i.d.** for short periods of time (no longer than 3 to 5 days to avoid addiction) when symptoms of anxiety are the most severe

6. PSYCHOSIS:

- Description:
 - **Abnormal** actions, thoughts, and speech = psychosis
 - Psychosis can be chronic or acute
 - Untreated psychosis can lead to brain damage
 - Signs and symptoms:
 - Hallucinations:
 - Disturbed perceptions of the senses -hearing, seeing, feeling, smelling
 - Delusions:
 - Ideas that don't correspond with reality that patients generally believe with absolute conviction, and will not change their minds even if shown proof to the contrary or if the belief is obviously impossible or bizarre
 - Unusual or bizarre behavior
 - Chaotic or extremely mute behavior
 - Personality changes
 - Difficulty with social interaction
 - Incoherent speech
 - Disorganized thinking
- Management:
 - Refer the patient immediately; psychosis is a mental illness that can be treated with anti-psychotic medication
 - **Chlorpromazine**, 25 mg. b.i.d. to 100 mg. b.i.d.

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7. MANIA:

- Extremely elevated mood
- Unusually high energy
- Unusual thought patterns
- Unusually busy, agitated, or irritable
- Symptoms:
 - Extreme high self-esteem, the feeling of being the greatest
 - Unwillingness to sleep
 - Speaking a lot or much more than usual
 - Feeling of fast thinking
 - Constantly distracted, poor concentration
 - Increased libido and sexually risky behavior
 - Physical restlessness
 - Crying and laughing
 - Can also have delusions and hallucinations
 - Anxiety and paranoia
 - Uncontrolled sexual behavior
- Management:
 - If you suspect that a patient may be violent or suicidal, take appropriate precautions. Inform family members:
 - Rule out physical cases whenever possible.
 - Refer the patient to a higher level of care for a mental assessment.
 - Remember, the disease can be controlled or treated
 - Do not stigmatize the patient. The person can be useful and reintegrated into

8. MANIC-DEPRESSIVE DISORDER:

- Bipolar disorder

- If the patient has depression, check for the possibility of Bipolar Disorder (manic episodes). Consider the patient to have Bipolar Disorder if previously diagnosed as such, or with a history of 3 or more of the following situations for more than 3 weeks:
 - Extremely elevated mood
 - Extremely talkative, with a flight of ideas
 - Extremely decreased need for sleep
 - Feeling that he is great (grandiose ideation)
 - Easily distracted
 - Reckless behavior
 - Depression and signs of depression
- Bipolar Disorder has to be treated differently. If Bipolar Disorder is probable, send the patient to a mental health clinician or hospital for treatment.
- Schizophrenia:
 - Description
 - Signs and symptoms
 - Nursing management
 - Treatment

9. POST PARTUM PSYCHOSIS:

- Signs and symptoms of postpartum psychosis:
 - Sudden onset
 - Paranoid delusions
 - Hallucinations
 - Agitation and mood disturbances
 - Withdrawal from social situations
 - Infant neglect
- Causes of postpartum psychosis:
 - Physical factors:
 - Febrile illness after delivery
 - Postpartum hemorrhage
 - Toxemia of pregnancy

Semester V

- Severe malnutrition
- Hypertension
- Epilepsy
- Previous mental illness

Edinburgh Postnatal Depression Scale

Edinburgh Postnatal Depression Scale¹ (EPDS)

Name: _____ Address: _____

Your Date of Birth: _____

Baby's Date of Birth: _____ Phone: _____

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:

- L Yes, all the time
- B Yes, most of the time This would mean: "I have felt happy most of the time" during the past week.
- C No, not very often Please complete the other questions in the same way.
- D No, not at all

In the past 7 days:

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. I have been able to laugh and see the funny side of things</p> <ul style="list-style-type: none"> <input type="radio"/> c As much as I always could <input checked="" type="radio"/> 1 Not quite so much now <input type="radio"/> r Definitely not so much now <input type="radio"/> : Not at all | <p>*8. Things have been getting on top of me</p> <ul style="list-style-type: none"> <input type="radio"/> : Yes, most of the time I haven't been able to cope at all <input type="radio"/> - Yes, sometimes I haven't been coping as well as usual <input type="radio"/> : No, most of the time I have coped quite well <input type="radio"/> : No, I have been coping as well as ever |
| <p>2. I have looked forward with enjoyment to things</p> <ul style="list-style-type: none"> <input type="radio"/> - As much as I ever did <input type="radio"/> : Rather less than I used to <input type="radio"/> : Definitely less than I used to <input type="radio"/> - Hardly at all | <p>*7. I have been so unhappy that I have had difficulty sleeping</p> <ul style="list-style-type: none"> <input type="radio"/> : Yes, most of the time <input type="radio"/> - Yes, sometimes <input type="radio"/> - Not very often <input type="radio"/> - No, not at all |
| <p>*3. I have blamed myself unnecessarily when things went wrong</p> <ul style="list-style-type: none"> <input type="radio"/> : Yes, most of the time <input type="radio"/> : Yes, some of the time <input type="radio"/> - Not very often <input type="radio"/> No, never | <p>*8. I have felt sad or miserable</p> <ul style="list-style-type: none"> <input type="radio"/> : Yes, most of the time <input type="radio"/> - Yes, quite often <input type="radio"/> Not very often <input type="radio"/> : No, not at all |
| <p>4. I have been anxious or worried for no good reason</p> <ul style="list-style-type: none"> <input type="radio"/> - No, not at all <input type="radio"/> - Hardly ever <input type="radio"/> : Yes, sometimes <input type="radio"/> : Yes, very often | <p>*9. I have been so unhappy that I have been crying</p> <ul style="list-style-type: none"> <input type="radio"/> - Yes, most of the time <input type="radio"/> : Yes, quite often <input type="radio"/> : Only occasionally <input type="radio"/> - No, never |
| <p>*5. I have felt scared or panicky for no very good reason</p> <ul style="list-style-type: none"> <input type="radio"/> - Yes, quite a lot <input type="radio"/> - Yes, sometimes <input type="radio"/> r No, not much <input type="radio"/> r No, not at all | <p>*10. The thought of harming myself has occurred to me</p> <ul style="list-style-type: none"> <input type="radio"/> - Yes, quite often <input type="radio"/> - Sometimes <input type="radio"/> - Hardly ever <input type="radio"/> - Never |

Administered/Reviewed by _____ Date _____

¹Source: Cox, J.L., Holden, J.M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786 .

²Source: K. L. Wisner, B. L. Parry, C. M. Plontek, Postpartum Depression N Engl J Med vol. 347, No 3, July 18, 2002, 194-199

Users may reproduce the scale without further permission providing they respect copyright by quoting the names of the authors, the title and the source of the paper in all reproduced copies.

Semester V

- Management of postpartum psychosis:
 - Evaluate suicidal potential
 - Separate infant and arrange for infant to breast feed under supervision of responsible relative
 - Hydration and nutrition
 - Reassurance and counseling
 - Referral and hospitalization
 - Preventive measures for postpartum psychosis

10. IMPROVED PRENATAL AND POSTNATAL CARE TO REDUCE THE COMPLICATIONS OF PREGNANCY:

- Patients at risk to have early postpartum checkups
- Early treatment of any complication, physical or psychological
- Education (IEC/BCC) on dangers of toxic drugs used by traditional healers

11. ATTENTION DEFICIT HYPERACTIVITY DISORDER:

- Description
- In adults
- In children
- Signs and symptoms
- Management

12. MENTAL ILLNESS AND PEDIATRIC CLIENT:

- Anxiety:
 - Overview of fears and specific phobias in children
- Bipolar disorder:
 - Bipolar disorder in children and adolescents: Assessment and diagnosis
 - Bipolar disorder in children and adolescents: Epidemiology, pathogenesis, clinical manifestations, and course
- Depression:
 - Depression in adolescents: Epidemiology, clinical manifestations, and diagnosis
 - Effect of antidepressants on suicide risk in children and adolescents

- Epidemiology and risk factors for suicidal behavior in children and adolescents
- Evaluation and management of suicidal behavior in children and adolescents
- Overview of treatment for adolescent depression
- Psychopharmacological treatment for adolescent depression

Unit II | Mental Illness and Medical Disorders

- Depression, mania, and schizophrenia in HIV-infected patients
- Diagnosis of psychiatric and psychological disorders in patients with cancer
- Diagnostic approach to the neuropsychiatric manifestations of systemic lupus erythematosus
- Eating disorders in pregnant women
- Management of psychiatric and psychological disorders in patients with cancer
- Neuropsychiatric manifestations of systemic lupus erythematosus
- Neuropsychiatric side effects associated with interferon-alfa plus ribavirin therapy: Recognition and risk factors
- Neuropsychiatric side effects associated with interferon-alfa plus ribavirin therapy: Treatment and prevention
- Overview of the neuropsychiatric aspects of HIV infection and AIDS
- Psychiatric aspects of organ transplantation
- Psychiatric illness in dialysis patients
- Psychological stress and infertility
- Psychosocial and other social factors in acute myocardial infarction
- Psychosocial factors and rheumatic disease
- Psychosocial factors in coronary and cerebral vascular disease
- Psychosocial factors in sudden cardiac arrest
- Substance abuse and addiction in HIV-infected patients

Unit IV | Impulse control disorders

- Intermittent explosive disorder in adults: Epidemiology, clinical features, assessment, and diagnosis
- Intermittent explosive disorder in adults: Treatment and prognosis
- Pathologic gambling

1. TRAUMA, CRITICAL CARE:

- Psychotropic medications/treatment of psychiatric disorders:
 - Tranquilizers (short-term for anxiety)
 - Antidepressants
 - Lithium
 - Chlorpromazine and other antipsychotics
 - Electroconvulsive therapy
 - Psychotherapy
 - Prevention and mental health rehabilitation programs

Types of Facilities Used:

- Hospitals and community clinics

Teacher-Learner Activities:

- Lecture/discussion
- Seminar case studies or case histories
- Written examinations
- Quizzes
- Journaling
- Storytelling
- Peer coaching
- Role-playing (simulated practice with peers)
- Model interviews
- Worksheets

Course Requirements:

- Participate in classroom discussions
- Submit two written in-depth analyses of nurse-client communication
- Submit a nursing care plan for a selected client
- Submit a client education project
- Oral presentation of clinical assessment of a selected client to peers
- Submit clinical worksheets as assigned
- Participate in clinical pre and post conferences
- Submit midterm and final self-evaluations based on competencies for laboratory portion of course

Required Textbook and Other Course Materials:

Psychiatric Nursing: Contemporary Practice, 4th Ed., M.S. Boyd, 2008.

Uys, L.R. and Middleton L. (2010). *Mental health Nursing: A South-African Perspective*. Juta and Company : Cape Town.

Stuart & Sundeen . *Principles & Practice of Psychiatric Nursing*. Latest Edition Mosby.

Current journal articles

Course Logistics:

- Classroom: recommend 2 hours of class a week over 15 weeks
- Clinical practice: recommend 4 hours a week over 15 week

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Simplified Diagnosis and Treatment

Credits:

3

Placement:

First semester of senior year

Duration:

16 weeks (14 instructional and 2 for exam)

42 theoretical hours

126 clinical hours

Course Description:

This course is designed to expand students' skills in diagnosing and treating common diseases in Liberia. In this course, the knowledge and skills the student have acquired, especially in taking vital signs, history taking and physical exam, as well as the meaning of findings, are placed in a logical framework so the student arrives at a rapid and correct diagnosis using the logical framework. The course uses the "Handbook for Health Personnel in Liberia" as a text, and the ten 5 x 8 cards that summarize the process of rapid diagnostic choices to teach this method. Handling of emergencies is also covered. Community health, including health education, nutrition, MCH, prenatal care, family planning, environmental sanitation and working with CHVs is also covered and emphasized. This course equips the student to function at the clinic level, linking the clinic with the community and working with community-level providers.

Broad Objectives:

By the end of this course, the student will be able to:

- Correctly diagnose the more common disease conditions found in Liberia
- Provide the correct treatment for these illnesses using drugs in the formulary from the MOHSW
- Recognize those conditions that he or she is unable to treat or unable to diagnose, and appropriately refer them
- Understand and appreciate rural communities, their culture and their health problems
- Act as a change agent for better health in catchment communities of the clinic
- Work with the CHVs and TTMs to improve health and reduce maternal mortality
- Work with communities and community elders to act as a change agent in improving the health of the community

Specific Objectives:

By the end of this course, the student will be able to:

- Assess and manage lacerations
- Assess and manage burns
- Rehydrate any degree of dehydration in children and adults
- Assess and appropriately treat, including referral for coma, shock and seizures
- Identify and refer surgical abdominal emergencies
- Provide clinic level management for other common selected emergencies
- Diagnose and treat selected common parasites
- Choose between causes of fever and manage appropriately
- Diagnose and treat malaria according to the guidelines of NMCP
- Diagnose and treat diarrhea and amebic dysentery
- Manage symptoms of peptic ulcer
- Incise and drain abscesses
- Diagnose and treat pneumonia
- Choose appropriate antibiotics for likely penicillin-resistant staphylococcal organisms
- Diagnose and treat or appropriately refer anemias
- Recognize and correctly treat pyelonephritis at the clinic level including referral as needed
- Recognize, give emergency treatment, and immediately refer meningitis and tetanus
- Diagnose patients with leprosy
- Assess patients suggestive of tuberculosis
- Diagnose epilepsy
- Use every opportunity to provide health education using the various methods
- Prevent kwashiorkor and marasmus by recognizing early signs of malnutrition and counseling mothers
- Apply triage in health care settings
- Provide appropriate family planning counseling and contraceptive choices

Semester V

Course Content:

Unit I

1. EMERGENCIES:

- Wounds:
 - Abrasions
 - Lacerations
 - Punctured wounds
- Burns
- Sprains
- Fractures
- Dehydration
- Bleeding and shock
- Unconsciousness
- Dislodgement of airway obstruction
- Seizures
- Ectopic pregnancy, poisoning
- Snakebite and other emergencies

Unit II | Parasites

1. INTESTINAL WORMS:

- Ascaris
- Hookworm
- Strongyloides
- Trichuris
- Pinworm and taenia
- Intestinal protozoa:
 - Giardia

- Entameba histolytica
- Balantidium coli
- Malaria
- Other parasites
- Trichomoniasis
- Onchocerciasis
- Schistosomiasis
- Filariasis
- Trypanosomiasis
- Paragonimiasis
- Other skin parasitic infestations:
 - Scabies
 - Pediculosis
 - Bedbugs
 - Tungiasis
 - Myiasis

Unit III | Acute Illnesses

1. GASTROINTESTINAL AND ENDOCRINE COMPLAINTS:

- Vomiting, diarrhea and constipation
- Distention, melena, rectal bleeding and jaundice
- Gastritis and abdominal pain Abdominal mass, and G.I. complaints
- Complaints suggesting thyroid problems and diabetes
- Diagnostic cards for G.I. and endocrine complaints

Semester V

Unit IV | Fevers and Cellulitis

- The causes of fever
- Identification of the cause
- Abscesses
- Cellulitis
- Buruli ulcers/country sores

Unit V | Respiratory, Cardiovascular, Urinary and Reproductive Systems Complaints

- Respiratory:
 - Fresh cold
 - Sore throat
 - Cough
 - Wheezing
- Cardiovascular:
 - Heart palpitation:
 - Shortness-of-breath
 - Chest pain
 - Anemia
 - Hypertension
- Urinary:
 - Dysuria
 - Frequency
 - Hematuria
 - Difficulty urinating
 - Flank pain
 - Urethral discharge

- Reproductive:
 - Vaginal discharge
 - Infertility
 - Impotence
 - Review of diagnostic cards for these four systems
 - Review of other selected acute illnesses

Unit VI | Head and Nervous System Complaints

- Anxiety
- Depression, “open mole,” psychosis
- Stroke
- Meningitis
- Tetanus
- Headache
- Eye complaints
- Earache
- Nosebleed

Unit VII | Bone, Joint, Muscle, Swelling, Malnutrition and Skin Complaints

- Bone pain
- Joint pain
- Joint swelling
- Ascites
- Edema
- Muscle weakness
- Malnutrition:
 - Kwashiorkor and Marasmus

Semester V

- Skin complaints
- Review of diagnostic cards for head, nervous system, bone, muscle, swelling, malnutrition and skin
- Review of selected acute illnesses

Unit VIII | Chronic Illnesses

- The role of the nurse in the prevention, diagnosis and treatment of:
 - HIV
 - Leprosy
 - TB
 - Heart Failure
 - Hypertension
 - Diabetes
 - Epilepsy
 - Rheumatoid arthritis
 - Sickle cell anemia

Unit IX | Community Health and Preventive Medicine

- Health education/BCC activities
- Nutrition - ENA
- Provision of health care services
- Children's clinics - EPI
- Prenatal clinic
- Basic EmONC - signal functions and essential newborn care
- Obstetrical emergencies for non-midwives
- Home-based maternal and newborn care
- Kangaroo Mother Care, Chlorhexidine for cord care
- Family planning programs - CBFP

- Outreach programs and disease surveillance
- Reportable diseases
- Environmental sanitation

Unit X | Working with Community Health Workers/Volunteers - Training and Supervising

- The role of the nurse in primary health care
- Training for community members - Adult education principles
- Supportive supervision of community level providers
- Health education and BCC at community level
- Provision of quality services by community level workers/Quality improvement at community level
- Record keeping and reporting by community-level providers

Simplified Diagnosis and Treatment Clinical Course

Clinical Course Description:

This clinical course will provide the learner with an opportunity to enhance basic nursing skills acquired from previous clinical courses. It provides opportunity for in-depth and more focused assessment and treatment of patients in real-life settings. The student also is given the opportunity to collaborate and consult with members of the health team.

Clinical Objectives:

At the end of this course, the student will be able to:

- Conduct comprehensive health assessment of a patient using appropriate assessment tools
- Accurately document data gathered from assessment
- Interpret laboratory findings
- Diagnose patient's illness correctly
- Assess own strengths and weaknesses in the implementation of the nursing process
- Collaborate with members of the health team for provision of quality nursing care
- Show confidentiality in managing patient's information

Clinical Placement:

- Hospital/health centers (OPD, wards, emergency room, intensive care units)
- Clinics
- Clinical skills laboratory

Clinical Skills:

- Weighing
- Measuring height
- Measuring blood pressure
- Reading pulse
- Assessing hearing
- Assessing visual acuity

- Assessing reflexes
- Documenting findings

Assessment:

- Practical exams
- OSCE
- Reflective diary

Resources:

- Sphygmomanometer and stethoscope
- Tuning fork
- Ophthalmoscope
- Tongue blade
- Tape line
- Snellen's chart
- Percussion hammer
- Height board

Competencies

Knowledge	Attitudes/Behaviors	Skills
Demonstrates knowledge of basic scientific methods and processes	Appreciates strengths and weaknesses of scientific bases for practice Values the need for ethical conduct in practice and research	Critiques research for application to practice Participates in data collection and other research activities
Understands the use and importance of nursing data for improving practice	Values the importance of nursing data to improve nursing care	Describes the computerized systems presently utilized to facilitate patient care
Describes how diverse cultural, ethnic, spiritual and socioeconomic backgrounds function as sources of patient, family, and community values	Describes how diverse cultural, ethnic, spiritual and socioeconomic backgrounds function as sources of patient, family, and community values	Implement nursing care to meet holistic needs of patient socioeconomic cultural, ethnic and spiritual values and beliefs influencing health care and nursing practice

Semester V

Knowledge	Attitudes/Behaviors	Skills
Describes scope of practice and roles of interdisciplinary and nursing health care team members	Values the perspectives and expertise of all health team members	Functions competently within own scope of practice as a member of the health care team Assumes the role of team member or
Understands the use and importance of nursing data for improving practice	Values the importance of nursing data to improve nursing practice	Individually, or as a member of a group, uses information effectively to accomplish a specific nursing purpose Uses information technology to enhance own knowledge

Assessment:

- Written exams
- Case study
- Procedure evaluation
- Practical exam
- Clinical performance
- OSCE

Teaching/Learning Strategies:

- Lectures
- Demonstrations
- Handbook assignments
- Handouts
- Illustrations
- Discussions
- Reflective diary
- Case reports

References:

Handbook for Health Personnel in Rural Liberia, 3rd Ed., 2009.

Nutrition for Developing Countries, Felicity King, Maurice King, David Morley, Leslie Burgess, Ann Burgess.

Carolyn Jarvis, 2011. *Physical Examination & Health Assessment*, 6th Edition.

Carolyn Jarvis, 2011. *Pocket book companion for Physical Examination & Health Assessment*, 6th Edition.

Carolyn Jarvis, 2011. *Student Laboratory Manual for Physical Examination & Health Assessment*, 6th Edition.

Carolyn Jarvis, 2011. *Vital Notes for Nurses: Health Assessment*, 6th Edition.

Ten diagnostic cards

Sample clinical test questions

Road-to-Health Cards

Course Expectations:

The student is expected to:

- Regularly attend class and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and take examinations on due dates

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Introduction to Research

Credits:

2

Placement:

Third year, semester I Duration:
16 weeks (14 instructional and 2 exams)
28 classroom hours

Pre-requisites:

Must be a graduating senior and have completed all courses up to semester V

Introduction:

The course is designed to introduce the students to scientific inquiry, critical appraisal and the concepts and principles of research in nursing. The knowledge and skills acquired will enable them to conduct simple research, as well as the findings of research in practice. In this course the student acquires basic, fundamental knowledge and skills to ethically participate as members of the health team in conducting research in nursing, and learns about the research component of the professional nursing role, as well as applying the findings of research to practice.

Broad Objectives:

By the end of this course, the student will be able to:

- Understand the importance of research in nursing
- Discuss basic principles of conducting research focusing on ethical principles in conducting research on human subjects
- Apply research concepts and principles when participating in conducting research
- Apply the research process and write reports.
- Write research reports

Specific Objectives:

By the end of this course, the student will be able to:

- Define and explain the concept of research
- Explain the importance of research to nursing and the role of the nurse in research
- Describe the types of research
- Describe steps in the research process
- Explain the ethical principles in the conduct of human research

- Describe how to utilize research finding in practice
- Describe the components of a research report

Course Content:

Unit I | Foundations of Nursing Research and Evidence-Based Practice

1. INTRODUCTION TO NURSING RESEARCH IN AN EVIDENCE-BASED ENVIRONMENT:

- Sources of evidence in nursing practice
- Purposes of research in nursing

2. DEFINITION AND CONCEPT OF RESEARCH:

- Definition of research
- Historical overview
- Sources of knowledge and characteristics of the scientific method
- Differences between research and problem solving

3. IMPORTANCE OF RESEARCH IN NURSING:

- Relevance to the profession

4. IMPORTANCE OF RESEARCH TO:

- Education
- Practice
- Administration
- Public and community health

5. ETHICS IN RESEARCH:

- Ethical principles in the conduct of human research

6. HUMAN SUBJECT FOR RESEARCH:

- Principles and concepts
- Confidentiality
- Privacy/anonymity, etc.
- Autonomy
- Veracity
- Beneficence

- Nonmaleficence
- Justice
- Consent/Informed consent
- Ethics and regulations in human research
- Ethics committees/review boards
- Subject for research

7. TYPES OF RESEARCH:

- Basic and applied
- Non-experimental – two groups, etc.
- Key concepts and steps in qualitative and quantitative research:
 - Variables
 - Quantitative research:
 - Experimental
 - Non-experimental
 - Qualitative research:
 - Grounded theory
 - Phenomenological
 - Ethnographic
 - Others
- Conceptualizing research problems, research questions, and hypotheses:
 - Basic terminology
 - Study Aims and purpose
 - Problem statement
 - Sources of research
 - Research questions
 - Research hypothesis

8. STEPS IN RESEARCH PROCESS:

- Problem Statement: Problem – sources, identification, statement, criteria for selecting problem, objectives, propose, significance, sources of research

Semester V

- Literature review – sources, existing literature, primary and secondary sources:
 - Purpose
 - Types of information
 - Strategies and steps
 - Critique of literature
 - Manual/electronic search/databases; presentation of literature review

9. RESEARCH VARIABLE, HYPOTHESIS AND RESEARCH QUESTIONS:

- Definition of research variables, characteristics, types
- Definition of hypothesis, characteristics and types
- Definition of research questions, characteristics and types
- Study aims and questions

10. RESEARCH DESIGN:

- Experimental – various types
- Quasi-experimental
- Non-experimental – various types
- Quantitative vs. qualitative designs

11. POPULATION SAMPLE AND SAMPLING TECHNIQUES:

- Definitions
- Scientific/probability sampling
- Non-scientific/non-probability sampling
- Sample size calculation

12. LITERATURE REVIEWS:

- Types/sources of information
- Strategies and steps when reviewing literature
- Critique of literature

13. DESIGNING QUALITATIVE AND QUANTITATIVE STUDIES:

- Measurement and data collection

- Developing a sampling plan

14. DATA COLLECTION:

- Method of data collection – observation, interview, psychological test, mechanical instruments, questionnaire, etc.
- Development of data collection instruments
- Characteristics of instrument – validity, reliability
- Pilot testing
- Levels of measurement – nominal, ordinary, interval, ratio

15. DATA ANALYSIS, REPORT WRITING AND PRESENTATION OF FINDINGS:

- Organization of data
- Frequency distribution/frequency distribution table
- Statistics:
 - Descriptive statistics – measures of central tendency; measure of dispersion
 - Inferential statistics – t-test, chi-square, correlation, analysis of variance (anova), etc.
- Hypothesis testing/confidence interval
- Presentation of result and findings

16. INTERPRETATION AND DISCUSSION OF FINDINGS:

- Interpretations of findings
- Discussion – relationship with existing literature and other studies
- New findings
- Conclusion, recommendations
- Suggestions for further studies

17. APPENDICES

18. REFERENCES

19. DISSEMINATION/COMMUNICATION OF FINDINGS:

- Writing research reports

Semester V

- Introduction to proposal writing
- Utilization of research findings:
 - Application to practice, education, clinical practice, etc.
 - Critiquing research studies

Competencies

Knowledge	Attitudes/Behavior	Skills
Demonstrates knowledge of basic scientific methods and processes	Appreciates strengths and weaknesses of scientific bases for practice Values the need for ethical conduct in practice and research	Participates in appropriate data collection and other research activities Adheres to Institutional Review Board (IRB) guidelines
Describes the concept of EBP including the components of research evidence, clinical expertise and patient/family values	Values the concept of EBP as integral to determining best clinical practice	Bases individualized care plan on best current evidence, patient values and clinical expertise
Describes reliable sources for locating evidence reports and clinical practice guidelines	Appreciates the importance of accessing relevant clinical evidence	Locates evidence reports related to clinical practice topics and guidelines
Differentiates clinical opinion from research and evidence summaries	Appreciates that the strength and relevance of evidence should be determinants when choosing clinical interventions	Applies original research and evidence reports related to area of practice Facilitates the integration of best current evidence into system practices
Explains the role of evidence in determining best clinical practice	Questions the rationale supporting routine approaches to care processes and decisions Values the need for continuous improvement in clinical practice based on new knowledge	Facilitates integration of new evidence into standards of practice
Identifies evidence-based rationale when developing and/or modifying clinical practices Understands data collection methodologies appropriate to individuals, families, and groups in meeting health care needs across the life span	Acknowledges own limitations in knowledge and clinical expertise before seeking evidence and modifying clinical practice	Uses current evidence and clinical experience to decide when to modify clinical practice

Teaching/Learning Strategies:

- Classroom presentations
- Discussion
- Use of Internet
- Lectures
- Group discussions
- Guest lecturers

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Complete all clinical hours
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class, laboratory and clinical practicum
- Complete all assignments and examinations on due dates

References:

The Practice Of Nursing Research: Conduct, Critique and Utilization, 5th Ed., N. Burns and S.K. Grove, 2005.

Research Methodology: A Step by Step Guide for Beginners, 2nd Ed., R. Kumar, 1999.

Polit, D. F. & Beck, C. T. (2008) *Nursing Research: Generating and Assessing Evidence for Nursing Practice*, 8th edition.

Essentials of Nursing Research, Methods, Appraisal, and Utilization, 6th edition, 2006©ISBN: 978-0-7817-4972-5. By Denise F. Polit PhD By Cheryl Tatano Beck DNSc, CNM, FAAN.

Understanding Nursing Research, Reading and Using Research in Practice, 2nd edition, 2008. By Carol L. Macnee RN, PhD.

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Course Title: Pediatric Nursing II - Nursing Care of the Sick Child

Credits:

4

Placement:

First semester of third year

Duration:

16 weeks (14 instructional and 2 exams)

56 classroom hours

168 Clinical hours

Pre-requisites:

Health Assessment; PHC-II; Pharmacology and Dosage Calculation; Ob/Gyn I and Medical Surgical I

Introduction/Course Description:

This course is a continuation of Pediatric Nursing I which is designed to teach students the role of acute and emergent nursing care of children, from infancy to adolescence. This course builds on and assumes knowledge of newborn care, and care of healthy children learned in Pediatrics Nursing I. Application of growth and development, integration of pathophysiology, and teaching and counseling families are integral to this course. Emphasis is placed on the nursing process. Clinical practicum in acute care facilities and laboratory settings assists the student in integrating didactic content into providing safe and effective care to children and their families. This course will also focus on IMNCI as the primary strategy for managing illness in under-fives.

General Course Objective:

- Understand the roles and responsibilities of a nurse in the provision of care of the sick child
- Recognize and manage common problems of sick children according to the IMNCI protocol
- Provide comprehensive nursing care to a child taking into consideration their growth and developmental stages
- Apply the nursing process in providing care for the sick/ill child
- Integrate the concept of family-centered pediatric nursing with related areas such as genetic disorders, congenital malformations and long-term care
- Utilize legal and ethical issues and concepts pertaining to pediatrics nursing

Specific Course Objectives:

By the end of this course, the student will be able to:

- List and describe the five most common causes of death in children under five in developing countries worldwide
- Explain the purposes of the World Health Organization's Integrated Management of Childhood Illnesses
- Explain the IMNCI concept
- Assess nutritional and immunization status, as well as, signs and symptoms of illness
- Classify the illness
- Identify treatments for the child's classifications and deciding if a child needs to be referred
- Give important pre-referral treatments (such as a first dose of an antibiotic, Vitamin A, quinine injection, and treatment to prevent low blood sugar) and referring the child
- Provide treatments in the clinic, such as oral rehydration therapy, Vitamin A, and immunization
- Teach the mother to give specific treatment at home, such as an oral antibiotic or anti-malarial, and counsel the mother about feeding and when to return
- Reassess the problem and providing appropriate care when a child comes for scheduled follow-up
- Explain the role of the nurse in the implementation of the IMNCI
- Demonstrate in simulation or role play identification and use of appropriate case management charts from IMNCI
- Adapt fundamental nursing assessments, interventions and evaluations to the care of sick children
- Explain differences and similarities in health care management of acutely ill and chronically ill children
- Provide care for children with special health care needs (CSHCN)
- Using content learned in Pediatric Nursing I, apply knowledge of growth and development to the nursing process in the care of children with acute and chronic illness

Semester V

- For each childhood disorder:
 - Assess for danger signs, ask about common conditions; examine, check nutrition and immunization
 - Classify according to need for urgent care, specific medical treatment or simple home management
 - Identify specific treatments for child
 - Teach family practical instructions
 - Prepare and teach family for referral if needed
 - Counsel regarding child nutrition and maternal health
 - Give follow-up
- Explain the pathophysiology and pharmacology of the most common causes of death in young children: Malaria, measles, diarrhea and dehydration, acute respiratory infections, neonatal conditions
- Explain the presentation of conditions requiring urgent care:
 - Malaria
 - Measles
 - Diarrhea and dehydration
 - Respiratory infections
 - Neonatal fever
- Explain general danger signs indicating need for urgent referral:
 - Child is not eating, drinking or breastfeeding
 - Child is vomiting everything
 - Child had seizure (convulsion, spasms)
 - Child is lethargic or unconscious
- Explain the assessment, classification, identification of treatments, practical teaching of family, counseling of family and follow-up of the following conditions
- Explain the pathophysiology and pharmacology of each of the following conditions:
 - Pneumonia
 - Diarrhea
 - Dehydration

- Fever
- Malaria
- Measles
- Meningitis
- Ear problem
- Malnutrition
- Anemia
- Outline supportive care for young infants and children needing referral:
 - First dose of medication
 - Warmth
 - Prevent low blood sugar
 - Provide fluids
- Explain and demonstrate management of traumatic injuries in children
- Assess and classify as to need for referral and transport children with traumatic injuries
- In clinical practice, assess, classify, identify, teach and counsel regarding health problems encountered
- Explain and demonstrate in laboratory setting the emergent management of a sick infant, child or adolescent

Course Content:

Unit I | Principles of Management of Acutely Sick Child

1. INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESSES

2. THE CARE OF THE SICK CHILD

3. INTEGRATED MANAGEMENT OF NEONATAL & CHILDHOOD ILLNESSES (IMNCI)

4. THE MINISTRY OF HEALTH HAS ADOPTED IMNCI AS THE APPROACH FOR MANAGEMENT OF ILLNESSES IN CHILDREN:

- Objectives:
 - To reduce mortality and morbidity associated with the major causes of disease in children less than five years of age
 - To contribute to healthy growth and development of children
- Strategy:
 - Addresses the most common childhood conditions
 - Introduced in 1995 (WHO & UNICEF) and currently adopted by over 100 countries
 - Recommended for all countries with IMR > 40/1000 lbs
 - It encompasses both preventive and curative interventions & responds to the felt needs of the population
- Three components:
 - Health worker skills:
 - Case management guidelines and standards
 - Training of facility-based public health providers
 - IMNCI roles for private providers
 - Maintenance of competence
 - Among trained health workers
 - Community:
 - Care seeking, nutrition
 - Home case management
 - Adherence to recommended treatment
 - Community involvement in health planning and monitoring

- Health system:
 - District planning and management
 - Availability of IMNCI drugs
 - Organization of work at health facilities
 - Quality improvement and supervision at health facilities
 - Referral pathways and services
 - HMIS
 - IMNCI and health sector reforms
- Advantages of IMNCI:
 - Accurate identification of illness
 - Focuses on care of the child as a whole and not on the reason for the visit.
 - Ensures integrated management of all prevalent illnesses that the child may present.
 - Ensures the early identification and prompt referral of all seriously ill children
 - More appropriate and combined treatment
 - Promotes rational use of drugs
 - Attention to the health needs of the mother
 - Strengthening of preventive services
 - Includes actions to improve parental practices in caring for the child at home
- Principle of IMNCI:
 - All sick children:
 - Must be examined for general danger signs
 - Must be assessed for major symptoms and checked for immunization, nutritional assessment, feeding problems and other problems
 - Limited signs are used
 - Group of signs used for classifications than diagnosis for prompt action
 - IMNCI addresses most problems
 - Uses selected essential drugs
 - Counseling is an essential component

Semester V

- IMNCI provision of care activities:
 - Assess and classify the sick child age 2 months up to 5 years
 - Identify and treat the sick child age 2 months up to 5 years
 - Counsel the mother/caretaker
 - Conduct follow-up visit
- The process:
 - For every child assess, classified and treat:
 - Possible bacterial infection
 - Neonatal tetanus
 - Possible jaundice
 - Diarrhea
 - Cough or breathing difficulty
 - Feeding problems or low weight
 - Malnutrition and anemia
 - Fever and measles
 - Ear problems
 - Check for general danger signs
 - Assess other problems:
 - Checking for signs of malnutrition and anemia and classifying the child's nutritional status.
 - Checking the child's immunization status and deciding if the child needs any immunizations today.
 - Assessing mother's own health

Notes for the teacher using the IMNCI Chart Booklet in Annex A at the end of this semester

- Emergent care of life-threatening conditions
- Family teaching and counseling

UNIT II | Care of a Hospitalized Child

- 1. HOSPITALIZATION OF THE CHILD**
- 2. STRESSORS AND REACTIONS RELATED TO DEVELOPMENTAL STAGES, DEATH AND DYING FOR ILL/HOSPITALIZED CHILD**
- 3. PLAY ACTIVITIES FOR HOSPITALIZED CHILD AND SAFETY PRECAUTION**
- 4. PRINCIPLES AND PRACTICES IN THE NURSING CARE OF HOSPITALIZED CHILD AND FAMILY**

Unit III | Nursing Care of a Child with Selected Disorders

1. NURSING CARE OF A CHILD WITH DISORDERS OF THE RESPIRATORY DISORDERS:

- Bronchitis
- Lower respiratory tract:
 - Broncholitis
 - Pneumonia
 - Whooping cough
 - Tuberculosis
 - Asthma
 - Carbon dioxide poisoning
 - Sudden death syndrome
- Acute respiratory infection

2. NURSING CARE OF A CHILD WITH OF THE CARDIAC CONDITIONS:

- Congenital heart disease
- Heart failure
- Endocarditis
- Rheumatic fever
- Hypertension
- Coronary artery disease (CAD)

Semester V

3. NURSING CARE OF A CHILD WITH OF THE GASTROINTESTINAL SYSTEM:

- Cleft lip
- Cleft palate
- Appendicitis
- Peptic ulcer
- Bowel obstruction
- Pyloric stenosis
- Intussusceptions
- Malrotation
- Abdominal hernias
- G.I. bleeding

4. NURSING CARE OF A CHILD WITH OF THE GENITOURINARY SYSTEM CLIENT WITH RENAL DYSFUNCTION:

- Polycystic kidney disease
- Hydronephrosis
- Urinary tract infection
- Nephrotic syndrome
- Glomerulonephritis
- Shistosomiasis

5. NURSING CARE OF THE CLIENT WITH HEMATOLOGIC/IMMUNOLOGIC DISTURBANCE:

- Anemia
- Sickle cell anemia
- HIV/AIDS

6. NURSING CARE OF THE CLIENT WITH NERVOUS SYSTEM DISTURBANCE:

- Brain tumor

7. NURSING CARE OF THE CLIENT WITH CEREBRAL DISTURBANCE:

- Intracranial infection
 - Bacterial meningitis
 - Encephalitis
 - Rabies
 - Brain abscess
 - Seizures
 - Epilepsy
 - Febrile seizure
 - Headache

8. NURSING CARE OF THE CLIENT WITH ENDOCRINE DISTURBANCE:

- Diabetes
- Thyroid disorder:
 - Goiter
- Cushing syndrome

9. NURSING CARE OF CLIENTS WITH MOBILITY DISORDERS:

- Fracture
- Amputation
- Contusions
- Dislocation, sprains, strains
- Osteomyelitis
- Skeletal tuberculosis
- Muscular dystrophy
- Club foot
- Congenital hip dysplasia
- Juvenile rheumatoid arthritis
- Bone osteosarcoma

Semester V

10. NURSING CARE OF THE CLIENTS WITH NEUROMUSCULAR DISTURBANCE:

- Spinal cord injuries
- Cerebral palsy

11. NURSING CARE OF THE CLIENT WITH REPRODUCTIVE SYSTEM DISORDERS:

- Undescended testes/cryptorchidism
- Hydrocele
- Hypospadias
- Inguinal hernia
- Testicular torsion
- Imperforate hymen
- Adolescent pregnancy

12. NURSING CARE OF THE CLIENT WITH EENT DISORDER:

- Tonsillitis
- Otitis media
- Laryngitis
- Acute viral laryngitis
- Conjunctivitis
- Myopia, retinal detachment, pressure in eyes, refraction errors

13. NURSING CARE OF A CHILD WITH DENTAL DISORDERS:

- Gingivitis
- Dental caries
- Periodontal abscess

14. NURSING CARE OF THE CHILD WITH CANCER:

- Leukemia
- Wilm's tumor
- Lymphoma

- Burkitt's lymphoma
- Osteosarcoma

Unit IV | Urgent Life-Threatening Conditions: Pathophysiology, Pharmacology, Management and Concerns in Liberia

- Pneumonia
- Diarrhea
- Dehydration
- Fever
- Malaria
- Measles
- Meningitis
- Ear problem
- Malnutrition

Pediatrics Nursing II: Clinical Course Description

This course will enhance the skills and knowledge of the learner, drawn from previous clinical experiences, while working with sick/well children and their families.

Clinical Objectives:

At the end of this clinical course, the learner will be able to:

- Develop individualized nursing care plans
- Deliver appropriate nursing care to the pediatric client based on diagnosis, age and developmental stage
- Work effectively with other members of the health team to improve care of children and their families
- Educate the client and family about available support that can help with difficulties concerning child diagnosis and treatment
- Use relevant cultural norms and practices to communicate with clients, families and team
- Demonstrate good documentation of patient care

Clinical Placement:

- Pediatric units
- Outpatient departments
- Clinics
- Health centers
- Schools

Clinical Skills:

- Assessing the sick child
- Admitting the sick child
- Bathing the sick child
- Calculating pediatric drug dosages and IV fluids
- Administering oxygen
- Inserting naso-gastric tubes and urine catheters

- Preparing a child and family for surgery
- Making bed for the sick child
- Preparing nursing care plans

Competencies:

Knowledge	Attitudes/Behaviors	Skills
Uses knowledge from nursing, health and other disciplines combined with best available evidence to explain nursing decisions and interventions	Values the importance of nursing data to improve nursing practice	Individually, or as a member of a group, uses information effectively to accomplish a specific nursing purpose
Demonstrates understanding of the diversity of the human condition	Values the inherent worth and uniqueness of individuals and populations	Provides holistic care that addresses the needs of diverse populations across the life span Understands the effects of health and social policies on persons from diverse backgrounds
Explains the role of evidence in determining best clinical practice	Questions the rationale of supporting routine approaches to care processes and decisions Values the need for continuous improvement in clinical practice based on new knowledge	Facilitates integration of new evidence into standards of practice, policies, and nursing practice guidelines
Understands that care and services are delivered in a variety of settings along a continuum of care that can be accessed at any point	Values assessing health care situations “through patient’s eyes”	Assesses patient values, preferences, decisional capacity, and expressed needs as part of ongoing assessment, clinical interview, implementation of care plan, and evaluation of care
Understands that legal, political, regulatory and economic factors influence the delivery of patient care	Appreciates that legal, political, regulatory and economic factors influence the delivery of patient care Values the need to remain informed of how legal, political, regulatory, and economic factors impact professional nursing practice	Provides care based on current legal, political, regulatory, and economic requirements Articulates issues at the work unit level that impact care delivery

Semester V

Knowledge	Attitudes/Behaviors	Skills
Differentiates clinical opinion from research and evidence summaries	Appreciates that the strength and relevance of evidence should be determinants when choosing clinical interventions	Applies original research and evidence reports related to area of practice Contributes to the integration of best current evidence into Microsystems practices
Identifies contributions of other individuals and groups in helping patients and families achieve health goals Identifies leadership skills essential to the practice of nursing	Respects the centrality of the patient and family as core members of any health care team Recognizes the role of the nurse as leader	Participates in the use of quality indicators and core measures to evaluate the effect of changes in the delivery of care Assumes the role of team member or leader based on the situation

Teaching/Learning Strategies:

- Classroom presentations
- Group exercises, role play
- Educational games
- Demonstration
- Coaching
- Homework and laboratory assignments

Course Expectations:

- Regularly attend classroom and laboratory sessions
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and laboratory
- Complete all assignments and examinations on due dates

Required Resources:

(IMNC) Integrated Management Of Childhood Illness; WHO/UNICEF 2005, Geneva, Switzerland.

Adele Pilliteri, 2010. Maternal And Child Health Nursing: Care of the Childbearing and Childrearing Family.

Catherine E. Burns et al, 2012, Paediatric Primary Care, 5th.

Marilyn Hockenberry, 2012. Wong's Essentials Of Paediatric Nursing, 9th Edition. C.V. Mosby Co. St. Louis.

Pocket Book of Hospital Care for Children: Guidelines for the Management of Common Illness.

Road to Health Chart.

Child health Nursing; Partnering with Children & Families, J. Ball, R. Bindler, and K. Cowen, 2010.

AMREF, Child Health.

Practical/Clinical Assessment:

- Clinical logs
- Clinical practicum
- Practical exam
- Case presentations

Assessment Criteria—Standard Grading System:

Quizzes	15%
Assignments	15%
Attendance	5%
Mid-term exam	25%
Final exam	40%

Annex A- Notes for the Teacher

Integrated Care Using The IMNCI Chart Booklet

PROVIDERS! A Rapid Initial Assessment is Vital to Caring for Children

YOU MUST!

- Wash your hands with running water and soap or alcohol-based rub
- Introduce self to the mother or caretaker
- Ask the mother to describe the infant's problem(s)
- Determine if this is an initial OR follow-up visit for this problem
- Take the baby's axillary temperature for 3 full minutes
- Measure the baby's pulse (apical) 1 full minute
- Measure the baby's respiration 1 full minute
- Ask about baby's posture/movements/alertness
- In all sick children brought to the health facility:
 - Check for possible bacterial infection
 - Ask mother/father/caretaker if the infant:
 - Is now having or has had any convulsions
 - Vomits everything
 - Is able to breastfeed
- Look for severe chest in drawing (infant must be calm)
- Look for nasal flaring (infant must be calm)
- Look and listens for grunting
- See if the infant is lethargic OR unconscious
- Look if the infant's movements are less than normal
- Look and feels for bulging fontanel
- Look for pus discharge from eyes
- Look if the umbilicus is red OR draining pus and if the redness extends to the skin
- Look for skin pustules and if they are many OR severe

- Look and feel for the muscular stiffness OR spasm
- The bacterial infection is serious If the infant has ONE OR MORE of the criteria below:
 - Convulsions
 - Vomits everything
 - Breathes fast (60 breaths per minute OR more)
 - Breathes slowly apnea (20 breaths per minute OR less)
 - Severe chest in-drawing
 - Nasal flaring
 - Grunting
 - Lethargic or unconscious
 - Bulging fontanel
 - Severe skin pustules
 - Umbilical infection, with redness extending to the skin
 - Fever (37.5C or above)
 - Low body temperature (less than 35.5C or cold to touch)
 - Shows movement less than normalOR
 - Possible neonatal tetanus when baby presents with history of unclean cord cut, signs of muscular stiffness, clenched jaw and/or spasmsOR
- Local bacterial infection **AND/OR** eye infection if the infant presents the following: Umbilicus that is red or is draining pus Skin pustules or Pus discharge from the eyes treats the infection appropriately. **If** the infant is classified with an infection, observe whether the provider treats it according to the classification made: **Serious possible bacterial infection:**
 - Prepares for immediate transfer to hospital, if appropriate
 - Explains to mother/father/caretaker all procedures and reasons

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- Treats convulsions if present now giving diazepam rectally to the infant, according to her/his age or weight (using a syringe with the needle removed after drawing up of the dose of diazepam, turning the child on the side to avoid aspiration and ensuring that airways are clear) Gives first dose of intramuscular antibiotics according to the infant's weight (intramuscular gentamicin and intramuscular benzyl penicillin) If low blood sugar is suspected (baby is cold to touch and lethargic), treats the low blood glucose with: continuous breastfeeding, OR 50ml sugar water if the infant is not able to breastfeed but is able to swallow, OR 50ml sugar water by nasal-gastric tube if the infant is not able to swallow Advises the mother/father/caretaker how to keep the infant warm on the way to the hospital **OR Possible neonatal tetanus:**
 - Prepares for immediate transfer to hospital
 - Explains to mother/father/caretaker all procedures and reasons
 - Ensures that the infant's airways are clear
 - Treats to prevent low blood sugar (as indicated above)
 - Gives benzylpenicillin 60mg/kg body weight IM in thigh using aseptic injection technique
 - Local bacterial infection and/or eye infection if classified
 - Gives an appropriate local antibiotic for eye infection: tetracycline eye ointment applied in both eyes three times daily (cleaning the eyes of the infant with washed hands and clean cloth and water, applying the eye ointment on the inside of the lower lid, and washing hands again after the procedure), or
 - Gives an appropriate local antiseptic for skin infection (gentian violet 0.5% applied in a previously cleaned infected area for up to five days)
 - Teaches the mother/father/caretaker to treat local infections at home
 - Advises the mother/father/caretaker to give home care for the infant
 - Indicates follow-up in two days
- Checks for possible jaundice:
 - Looks (in natural daylight) to determine jaundice
 - Asks baby's age (if under 24 hours old with ANY jaundice, prepares for immediate transfer to hospital)
 - Observes if jaundice visible on arms and legs on day 2 of life
 - Observes if jaundice visible on hands and feet day 3 of life
 - Determines birth weight of infant (if known)
 - Determines if baby was born premature (by date or weight)

- Classifies the jaundice, **If**, ONE OR MORE of the criteria below are present:
 - Significant jaundice:
 - Birth weight of less than 2.5 kg, OR born before 37 weeks
 - ANY jaundice on any baby within first 24 hours of life
 - Visible jaundice arms and legs day 2 of life
 - Visible jaundice hands and feet day 3 of life
 - OR
 - Not significant jaundice:
 - Jaundice that does not meet the criteria for significant jaundice
 - Explains condition of the child to the parents
- Treats jaundice, according to the classification made:
 - Significant jaundice:
 - Prepares for immediate transfer to hospital if not at the hospital with mother
 - Treats to prevent low blood sugar through breastfeeding if the infant is able to breastfeed; 50 ml of sugar water if the infant is not able to breastfeed but is able to swallow; OR 50 ml of sugar water by nasal-gastric tube if infant not able to swallow
 - Advises mother and father to keep the infant warm during transport
 - OR
 - Not significant jaundice:
 - Advises the mother to breastfeed often, day and night
 - Keeps the baby uncovered, indoors, in sunlight several hours a day (maintain warmth but avoid overheating)
 - Follows up to re-evaluate in two days
- Checks for diarrhea:
 - Asks how long the infant has had diarrhea
 - Asks if there is any blood in the stool
 - Looks at the infant's general condition to see if the infant is:
 - Lethargic OR unconscious
 - Restless and irritable
 - Looks for sunken eyes

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- Pinches the skin of the abdomen to determine dehydration:
 - Returns to normal very slowly (longer than 2 seconds)
 - Returns to normal slowly (within 2 seconds)
- Classifies dehydration, **If, ONE OR MORE** of the criteria below:
 - **Severe dehydration** if *two* of the following signs are present:
 - Infant lethargic or unconscious
 - Sunken eyes
 - Skin pinch goes back very slowly (more than 2 seconds)OR
 - **Some dehydration** if *two* of the following signs are present:
 - Infant restless or irritable
 - Sunken eyes
 - Skin pinch goes back slowly (more than 2 seconds)OR
 - No dehydration if there is no dehydration from the diarrhea
 - The provider determines if there is severe persistent diarrhea if the diarrhea has lasted for 14 days or more And determines if there is blood in the stool
 - Treats diarrhea with severe dehydration:
 - Refers **URGENTLY** to the hospital if the infant has possible serious bacterial infection, or possible neonatal tetanus, or significant jaundice, indicating that the mother/father /caretaker give the infant frequent sips of ORS on the way and advising the mother to continue breastfeeding
 - Gives fluids for severe dehydration, Plan C: rehydration therapy using intravenous fluids—Ringer’s Lactate Solution OR, if not available, normal saline solution (30 ml/kg in 1 hour and then 70 ml/kg in 5 hours) OR using a nasal-gastric tube—ORS (20 ml/kg/hour for 6 hours— total 120 ml/kg)
 - Advises return in 2 days for follow-up or sooner if mother/father wants
 - Advises about hand hygiene for her and other children
- If the infant does not have possible serious bacterial infection, or possible neonatal tetanus, or significant jaundice, reassesses the infant every 1–2 hour
- Appropriately treats diarrhea with **some dehydration** AND OR no dehydration:
 - Gives fluids and food for some dehydration, Plan B using ORS (200–400 ml in 4 hours, plus breastfeeding OR 100–200 ml of clean water in the same period, and reassessing the infant after the 4 hours)

- Refers **URGENTLY** to the hospital if the infant has possible serious bacterial infection, or possible neonatal tetanus, or significant jaundice, indicating the mother or caretaker to give the infant frequent sips of ORS on the way and advising the mother to continue breastfeeding
- Explains to the mother/father/caretaker how to continue rehydration at home with ORS
- Advises about hand hygiene for her, father and other children
- Follows up in two days or sooner if the mother/father wants
- Manages no dehydration:
 - Gives fluid to treat diarrhea at home, Plan A: breastfeed frequently and for longer at each feed, give ORS in addition to breast milk
 - Gives the mother several packets of ORS and teaches her how to use them (boil and cool the water, etc.)
 - Advises about hand hygiene for her and other children
 - Follows up in two days or sooner if the mother/father/caretaker wants
- Appropriately treats **severe persistent diarrhea** and blood in stool
- Prepares for immediate transfer to hospital as appropriate and explain to parents:
 - Treats dehydration (if present) before referral unless the infant has also possible serious bacterial infection, or possible neonatal tetanus, or significant jaundice
- Blood in stool:
 - Refers **URGENTLY** to the hospital
- Advises the mother/father/caretaker to keep the infant warm on the way to the hospital
- Checks for feeding problems OR low weight
- Ask about any difficulty feeding
- Asks if the infant is breastfeeding
- Asks if the infant usually receives any other foods/drinks, and how often
- Asks if the mother/father/caretaker uses anything other than breast milk
- Uses the weight for age chart to determine if the infant is low weight for age
- Determines birth weight for an infant less than 7 days
- Assesses breastfeeding if any difficulty feeding, if the infant:
 - Is breastfeeding less than 8 times in 24 hours, or

Semester V

- Is taking any other foods or drinks, or Is low weight for age, or Is low birth weight and has no indications to refer **URGENTLY** to hospital **If there is any difficulty with breastfeeding, the provider:** Asks the mother to put her infant to breast and observes the breastfeed for 4 minutes. (If the infant has breastfed in the previous hour, asks the mother to wait and tell her when the infant is willing to feed again to proceed with the observation.) Verifies if the infant's position is correct:
 - The infant's neck is straight OR bent slightly back
 - The infant's body is turned toward the mother (infant facing the breast with her/his nose opposing the nipple)
 - The infant's body is close to the mother's body
 - The infant's whole body is supported
 - Sees if the baby has ulcers or white patches in the mouth (thrush)
 - Classifies the feeding problem OR low weight
 - Infant not able to feed
 - Possible serious bacterial infection if the infant:
 - Is not able to feed, OR
 - Has no attachment at all, OR
 - Is not suckling at all
- OR
- Infant with a feeding problem or low weight:
 - Not well-attached to breast, OR
 - Not suckling effectively, OR
 - Less than 8 breastfeeds in 24 hours, OR
 - Receives other foods OR drinks, OR
 - Has low weight for age, OR
 - Has thrush (ulcer or white patches in mouth)
- OR
- No feeding problem
 - Not low weight for age and no other sign of inadequate feeding
 - Treats/manages the infant for feeding problem or low weight, Infant not able to feed—**possible serious bacterial infection:**
 - Prepares for immediate transfer to hospital
 - Explains to mother/father/caretaker all procedures and reasons

- Gives first dose of intramuscular antibiotics according to the infant's weight (intramuscular gentamicin and intramuscular benzyl penicillin)
- Treats to prevent low blood sugar through: breastfeeding if the infant is able to breastfeed, 30–50 ml of milk or sugar water before departure if the infant is not able to breastfeed but is able to swallow or 50 ml of milk or sugar water by nasogastric tube if the infant is not able to swallow
- Advises mother/father/caretaker how to keep the infant warm on the way to the hospital

OR

- Infant with a feeding problem or low weight:
 - Advises the mother to breastfeed as often and for as long as the infant wants, day and night
 - Advises mother and husband about her own nutritional needs and rest
 - Teaches correct positioning and attachment
 - If infant is not breastfeeding at all, advises caretaker about correctly preparing breast milk substitutes and using a cup, especially about hygiene
 - If thrush, teaches the mother to treat thrush at home with half-strength gentian violet (0.25%)
 - Advises mother/father/caretaker to give home care for the infant
 - Follows up any feeding problem or thrush in two days
 - Follows up low weight for age or low birth weight in 14 days

OR

- Infant with no feeding problem:
 - Advises mother/father/caretaker to give home care for the infant
 - Praises the mother/father/caretaker for feeding the infant well
- Assesses the infant's immunization status according to the following schedule:
 - Birth: BCG and OPV-0
 - 6 weeks: DPT-1 and OPV-1HBs

Remember that OPV0-0 should not be given to infants older than 14 days. If the infant has not received OPV-0 by the time she/he is 15 days old, the provider should wait until the infant is 6 weeks old to receive OPV-1 together with DPT-1.

The provider assesses other health problems of the infant:

- Assesses any other problem mentioned by the mother OR observed during the visit

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- Refers to the appropriate guidelines on the treatment of the problem
- Refers the infant to a hospital in case the provider does not know how to help the infant, provider advises the mother/father/caretaker about danger signs and to return immediately to the facility if the infant has any of the following signs:
 - Breastfeeding poorly or any suckling problems
 - Becomes sicker
 - Feels hot OR feels cold to the touch
 - Breathing very fast or very slow
 - Difficulty breathing
 - Blood in stool
 - Jaundice is increasing
 - Any spasms or convulsions
 - Not passing urine
- Records the following information:
 - Name
 - Age
 - Sex
 - Address
 - Weight
 - Temperature
 - First or second visit
- Checks for cough or breathing difficulty:
 - Asks about the duration of cough or difficulty breathing
 - Counts the breaths in one minute in a calm child (fast breathing is 50 breaths/min or more for child from 2 months to 12 months. More than 40 breaths /min or more for a child of 12 months to 5 years of age)
 - Looks for chest in drawing
 - Looks and listens for stridor and wheeze
 - Explains to parents the condition of the baby and requests them to keep the baby calm during examination

- Classifies the sick child as follows:
 - **Severe pneumonia or very severe disease** when the sick child presents one or more of the following signs:
 - Any general danger sign, OR
 - Chest in drawing, OR
 - Stridor in calm childOR
 - Pneumonia when the child has fast breathing:
 - 2 months up to 12 months (50 breaths/min or more)
 - 12 months up to 5 years (40 breaths/min or more)OR
- Cough or cold (no pneumonia):
 - No sign of pneumonia or very severe disease, The provider treats the child with severe pneumonia or very severe diseases
- Treats the child as follows:
 - Severe pneumonia or very severe disease:
 - Gives first dose of an appropriate antibiotic
 - Refers **URGENTLY** to the hospital as appropriately
 - If referral is not possible:
 - Repeats the chloramphenicol injection every 6 hours for 2 days. then changes it to an appropriate oral antibiotic and complete 10 days
- The provider treats the child with pneumonia and no pneumonia
- Pneumonia:
 - Gives the appropriate oral antibiotic according to body weight, with enough doses for five days
 - Shows the mother/father/caretaker how to give the oral antibiotic, emphasizing hand hygiene
 - If the child is wheezing, gives a dose of rapid acting bronchodilator followed by oral Salbutamol for five days
 - Advises the mother/father/caretaker to soothe the throat and relieve the cough with home remedies (humidity, warm area, lots of liquids)
 - Advises the mother/father/caretaker to return immediately if condition worsens
 - Advises for follow-up visit after 2 days

Semester V

OR

- No pneumonia:
 - If coughing more than 14 days refers for assessment
 - Treats wheeze if present
 - Soothes the throat and relieves the cough with a safe remedy
 - Advises the mother/father/caretaker to return immediately if she sees the need
 - Advises for follow-up visit in 5 days if not improving
 - The provider checks the child for fever and measles:
 - Takes the axillary temperature for full 3 minutes to determine fever
 - Asks how long the child has had fever at home
 - Asks if family lives in malaria risk area (high or low)
 - If child has had fever for more than 7 days, asks if the fever has been present every day
 - Asks if the child has had measles within the last 3 months
 - Checks for stiff neck
 - Check throat for enlarged tonsils or lymph nodes on the neck
 - Checks for severe ear pain or discharge
 - Checks for signs of measles (general rash, cough, runny nose or red eye or one of those)
 - If the child has measles now or within last 3 months, checks for:
 - Mouth ulcer (are they deep and extensive?)
 - Pus draining from the eye
 - Clouding of cornea
 - Classifies fever (high malaria risk area) as:
 - Very severe febrile disease:
 - Any general danger signs (convulsions, vomits everything, not able to drink or breast feed, lethargic or unconscious, has the child had convulsions)
 - Stiff neck
- OR
- Malaria (high malaria risk area) when the child has:
 - Fever (by history or feels hot) or temperature 37.5C or above

OR

- **Fever, malaria unlikely** if the sick child presents the following:
 - Runny nose present or
 - Measles present or
 - Other cause of fever present
- The provider classifies **severe complicated measles**: when the sick child presents the following:
 - Any general danger sign or
 - Clouding of cornea or
 - Deep or extensive mouth ulcers
- **Measles with eye or mouth complications**: when the sick child presents the following:
 - Pus draining from the eye or
 - Mouth ulcers
- **Measles**: when the sick child has measles now or within the last three months:
- Treats it according to the classification made
- Very severe febrile disease (high malaria risk):
 - Explains to mother/caretaker all procedures and reasons
 - Gives first dose of an appropriate antibiotic
 - Treats the child to prevent low blood sugar
 - Gives one dose of paracetamol in clinic for high fever (38.5°C or above)
 - Refer **URGENTLY** to the hospital if appropriate
 - If referral is not possible:
 - The child should remain lying down for one hour
 - Repeats the quinine injection at 4 and 8 hours later, and then every 12 hours until the child is able to take an oral anti-malarial. Do not continue quinine injections for more than 1 week
 - Repeats chloramphenicol injection every 6 hours for 2 days
 - Changes to an appropriate oral antibiotic for 10 days
 - Repeats paracetamol every 6 hours

OR

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- Malaria:
 - Gives an oral anti-malarial according to national malaria treatment protocol
 - Gives one dose of paracetamol in clinic for high fever (38.5°C or above)
 - Advises mother/father/caretaker to return immediately if condition worsens
 - Advises mother/father/caretaker to bring in other children to check for malaria
 - Advises mother on availability of ITNs
 - If fever is persistent every day for more than 7 days, refers for assessment
- The provider treats the child for very severe febrile disease, fever malaria unlikely:
 - Gives one dose of paracetamol in clinic for high fever (38.5°C or above)
 - Advises mother/caretaker return immediately if condition worsens
 - Advises follow-up visit in 2 days if fever persists
 - If fever persists every day for more than 7 days, refers for assessment
- The provider treats the child for fever and measles. **severe complicated measles:**
 - Gives Vitamin A
 - Gives first dose of an appropriate antibiotic
 - If clouding of the cornea or pus draining from the eye, applies tetracycline eye ointment
 - Refers **URGENTLY** to hospital
 - Advises to the mother/caretaker to continue feeding to the child
- Measles with eye or mouth complication:
 - Gives Vitamin A
 - If pus draining from the eye, treats eye infection with tetracycline eye ointment
 - If mouth ulcer treat with gentian violet
 - Advises to the mother/caretaker to continue feeding the child
 - Advises follow-up visit in 2 days
- Measles:
 - Gives vitamin A
 - Advises the mother/father/caretaker to continue feeding the child

- Checks for ear problems:
 - Asks mother/father/caretaker to describe the ear pain and number of days of pain
 - Asks if the child has ear discharge
 - Examines for any draining or pus from the ear
 - Feels for tender swelling behind the ear
 - Classifies the child with ear problems
- Mastoiditis:
 - Any high fever plus tender swelling behind the ear
- Acute ear infection:
 - Pus draining from the ear and discharge for <14 days
 - Ear pain (infant pulls at ears and cries)
 - Fever
- Chronic ear infection:
 - Pus draining from the ear and discharge for >14 days
 - Ear pain (infant pulls at ears and cries)
 - Fever
 - Treats the child with ear problem
- Mastoiditis:
 - Gives first dose of an appropriate antibiotic according to body weight
 - Gives paracetamol according to body weight
 - Prepares for immediate transfer to hospital
 - Explains to mother/father/caretaker all procedures and reasonsOR
- Acute ear infection:
 - Gives appropriate antibiotic (mg/kg) for five days
 - Gives paracetamol (mg/kg)
 - Dries ear by wicking using aseptic technique wearing gloves
 - Advises follow-up visit in 5 daysOR

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- Chronic ear infection:
 - Dries the ear by wicking using aseptic technique and gloves
 - Explains to mother about hand hygiene and ear hygiene
 - Requests follow-up visit in 5 days or if condition worsensOR
- No ear infection: No additional treatment
- Checks for malnutrition and anemia:
 - Severe visible wasting
 - Severe or some pallor in the child's palms
 - Edema of feet
 - The provider determines weight for age according to the chart
- Classifies malnutrition or anemia
- Severe malnutrition or severe anemia for any of the following signs:
 - Severe visible wasting
 - Severe pallor in palms
 - Edema of both feet
 - Very low weight-for-age on the classification chart
- **Anemia or very low weight** for any of the following signs:
 - Some palmar pallor
 - Very low weight for age
- **No anemia or not very low weight**; for any of the following signs:
 - No very low weight for age on the classification chart
 - Treats the child for malnutrition and anemia
- Severe malnutrition or severe anemia:
 - Prepares for immediate transfer to hospital
 - Explains to mother/father/caretaker all procedures and reasons
 - Gives dose of oral vitamin AOR

- Anemia or very low weight:
 - Assesses the home atmosphere, and counsels the mother on feeding according to Food box counsel
 - Advises the mother/father/caretaker to return for follow-up visit in 5 days
 - If pallor:
 - Gives iron supplement and explains to NOT take it with tea
 - Gives oral anti-malarial if high malaria risk
 - Gives Mebendazole if child is 1 year or older, and has not had a dose in the previous 6 months
 - Advises mother/father/caretaker to return immediately for any danger signs
 - If pallor, advises follow-up visit in 30 days
 - If very low weight for age, advises mother/caretaker to follow up at home

OR

- No anemia or not very low weight:
 - If child is less than 2 years old, assesses the child's feeding and counsels the mother/father/caretaker on feeding according to the food box counsel

1. DOCUMENT CARE/ACTIVITIES AND INSTRUCTIONS ON IMNCI:

- Management of the young child 0 to 2 months old:
 - Check for possible bacterial infection
 - Count the breaths in one minute. _____ breaths per minute
 - Repeat if elevated _____ Fast breathing?
 - Look for severe chest in-drawing
 - Look for nasal flaring
 - Look and listen for grunting
 - Look and feel for bulging fontanelle
 - Look for pus draining from the ear
 - Look at umbilicus. Is it red or draining pus?
 - Does the redness extend to the skin?
 - Fever (temperature 37.5°C or feels hot) or low body temperature (below 35.5°C or feels cool)
 - Look for skin pustules. Are there many or severe pustules?

Semester V

- See if young infant is lethargic or unconscious
- Does the young infant have diarrhea?
 - For how long? _____ Days
 - Is there blood in the stools?
 - Look at the young infant's general condition:
 - Does the infant move only when stimulated?
 - Does the infant not move even when stimulated?
 - Is the infant restless or irritable?
 - Look for sunken eyes
 - Pinch the skin of the abdomen. Does it go back:
 - Very slowly (longer than 2 seconds)?
 - Slowly?
- Then check for feeding problem or low weight:
 - Is there any difficulty feeding? Yes _____ No _____
 - Is the infant breastfed? Yes _____ No _____
 - If Yes, how many times in 24 hours? _____ times
 - Does the infant usually receive any other foods or drinks? Yes _____ No _____
 - If Yes, how often?
 - What do you use to feed the child?
 - Determine weight for age. Low ___ Not Low _____
- If the infant has any difficulty feeding, is feeding less than 8 times in 24 hours, is taking any other food or drinks, or is low weight for age AND has no indications to refer urgently to hospital:
 - Assess breastfeeding:
 - Has the infant breastfed in the previous hour?
 - If infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breastfeed for 4 minutes.
 - Is the child well positioned?
 - with the infant's head and body straight Yes _____ No _____
 - Facing her breast, with infant's nose opposite her nipple Yes _____ No _____
 - With infant's body close to her body Yes _____ No _____

- Supporting infant's whole body, not just neck and shoulders Yes ___
No ___
- Is the infant able to attach? To check attachment, look for:
 - Chin touching breast Yes ___ No ___
 - Mouth wide open Yes ___ No ___
 - Lower lip turned outward Yes ___ No ___
 - More areola above than below the mouth Yes ___ No ___
- No attachment at all/not well-attached/good attachment
- Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)?
- Not suckling at all/not suckling effectively/suckling effectively
Look for ulcers or white patches in the mouth (thrush).
- Check the young infant's immunization status:
 - Circle immunizations needed today: BCG, Penta1, Penta2, OPV 0, OPV 1, OPV 2
- Schedule Return for next immunization on: _____
- Assess other problems
- Assess mother's own health
- Management of the young child 0 to 2 months old:
 - Check for general danger signs
 - General danger signs present?
 - Not able to drink or breastfeed
 - Vomits everything
 - Convulsions
 - Lethargic or unconscious
 - Convulsing now
 - Remember to use danger sign when selecting classifications
 - Does the child have cough or difficult breathing? Yes ___ No ___
 - For how long? ___ Days
 - Count the breaths in one minute. _____ breaths per minute. Fast breathing?
 - Look for chest indrawing
 - Look and listen for stridor

Semester V

- Does the child have diarrhea? Yes ___ No ___
 - For how long? _____ Days
 - Is there blood in the stools?
- Look at the child's general condition:
 - Is the child:
 - Lethargic or unconscious?
 - Restless or irritable?
 - Look for sunken eyes.
 - Offer the child fluid.
 - Is the child:
 - Not able to drink or drinking poorly?
 - Drinking eagerly, thirsty?
 - Pinch the skin of the abdomen. Does it go back:
 - Very slowly (longer than 2 seconds)? Slowly?
 - **Does the child have fever?** (by history/feels hot/temperature 37.5°C or above)
Yes___ No___
 - Decide Malaria Risk: High Low
 - For how long? _____ Days
 - If more than 7 days, has fever been present every day?
 - Has child had measles within the last 3 months?
 - Look or feel for stiff neck
 - Look for runny nose
 - Look for signs of measles:
 - Generalized rash and
 - One of these: cough, runny nose, or red eyes
 - If the child has measles now or within the last 3 months:
 - Look for mouth ulcers:
 - If Yes, are they deep and extensive?
 - Look for pus draining from the eye.
 - Look for clouding of the cornea.
 - Does the child have an ear problem? Yes___ No___
 - Is there ear pain?

- Is there ear discharge?
 - If Yes, for how long? ___ days
- Look for pus draining from the ear.
 - Feel for tender swelling behind the ear.
- Then check for malnutrition and anemia:
 - Look for edema of both feet
 - Look for visible severe malnutrition or very low weight
 - Look for palmar pallor
 - Severe palmar pallor? Some palmar pallor? Yes ____ No ____
 - Determine MUAC:
 - MUAC < 12 cm & \geq 11.5cm _____
 - MUAC < 11.5cm _____
- Check the child's immunization status:
 - Circle immunizations needed today. BCG, Penta 1, Penta 2, Penta 3, OPV 0, OPV 1, OPV 2 , OPV 3, Measles, YELLOW FEVER
 - Return Date for next immunization: _____
- Assess child's feeding if child has ANEMIA OR VERY LOW WEIGHT or is less than 2 years old:
 - ASK – What foods do you give your child?
 - Do you breastfeed your child? Yes _____ No _____
 - How many times do you breast feed during the day?
 - Are the position and attachment correct? Yes, No ____ (Observe the child breastfeeding)
 - Does the child take any other food or fluids? Yes ____ No ____
 - If yes, what food or fluids?
 - How many times per day? _____ times
 - How many types during the day?
 - How many times a day do you feed the child? Less than 4/More than 4
 - Which quantity do you give each time?
 - What is the consistency of the porridge?
 - Does the child receive his/her own serving? _____
 - How is the food prepared?
 - Who feeds the child and how? _____

Semester V

- During the illness, has the child's feeding change? Yes_____ No_____
- If yes, how?
- Check for feeding problems
- Assess other problems
- Assess mother's own health

Semester VI | Course Outline

**Professional Development
Workshop (EmONC/BLSS)
Affiliation**

Course Title: Professional Development

Credits:

3

Placement:

Second semester of senior year

Duration:

16 weeks (14 instructional and 2 for exam)

42 theoretical hours

126 clinical hours

Course Description:

This course is designed to equip the learner with the continuous process of acquiring new knowledge and skills that relate to the nursing courses taken in the previous semesters.

Course Objectives:

At the end of this course, the learner will be able to:

- Enhance her/his job skills
- Obtain job-related knowledge and information
- Increase productivity and efficiency
- Enhance skills and increase knowledge in her/his specific academic discipline.
Demonstrate knowledge, skills and attitude in documentation.
- Demonstrate knowledge and skills of the nursing process.

Course Content:

Unit I | Workshops/Seminars (2 months)

1. HEALTH ASSESSMENT
2. DOCUMENTATION
3. LEADERSHIP
4. BLSS (MODULES 1–10)

Unit II | Affiliation (2 months)

Clinical Course Description:

This clinical affiliation is to assist the learner to appreciate the concepts and principles of Obstetrics Nursing and the learner acquire knowledge and develop attitude and beginning skills in rendering nursing care to normal and high-risk pregnant women during antenatal, natal and postnatal periods in hospitals and community settings.

Clinical Course Objectives:

- Appreciate the historical perspective, trends and issues in obstetric nursing
- Identify the anatomical, physiological and psychosocial changes taken place during pregnancy
- Render comprehensive care to mothers during antenatal, natal and postpartum period
- Explain the legal and ethical issues pertaining to obstetric nursing