Liberian Board for Nursing & Midwifery
Republic of Liberia

Competency-Based Curriculum
CM to RM Bridging Program

February 2019

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Mr. Humphrey Gibbs Loweal
Chairman
Liberian Board for Nursing and Midwifery

Introduction

According to the World Health Organization (WHO), maternal mortality in Liberia remains one of the highest in the world at 1,072 per 100,000 live births. Around the world, midwives are being recognized for the quality care they provide, for the positive effects they have on communities when fully integrated and supported by the health care system. The coming decade will present new challenges and opportunities for midwives to further develop their role as practitioners, partners and leaders in delivering high quality care and this, shaping the future of maternity care in Liberia.

In 2017, the LBNM commissioned a review of the CM to RM Bridging Curriculum to develop a stronger vision for Liberian midwifery as we move towards a new decade that brings with it new challenges and modern solutions to existing healthcare problems. The process started with a review of the 2016 Task Analysis conducted by the United States Agency for International Development (USAID). In addition, an assessment of the curriculum's alignment to the International Confederation of Midwifes (ICM) Core Competencies was conducted. Based on the findings, the following goals emerged as key to a successful revision of the CM to RM Bridging curriculum:

1. Align curriculum with ICM Core Competencies and workforce needs of Liberia.
2. Decrease the number of hours spent in class, lab and clinical.
3. Provide innovative teaching/learning tools for students and teachers.

Rationale

The curriculum has been developed to serve as a standard tool for advancing midwives in the provision of quality midwifery and reproductive health care services. Upon completion, the midwife will receive a diploma.

Vision Statement

Envisage a competent and ethical midwife who contributes to the health system and the community for improved health outcomes for women, newborns, adolescents and their families.

Mission Statement

To prepare competent and ethical midwives who will become leaders in their communities and institutions, including positions in management, administration, as well as clinical roles and responsibilities.

Philosophy

The philosophy of midwifery education in Liberia is based on the concepts of client, health, midwifery, environment, and midwifery education. The program strives to prepare the midwife to have a strong knowledge base and excellent clinical decision making and skills.

Values of the Graduate

Graduates will be compassionate listeners, respectful and committed workers, assertive leaders and knowledgeable and independent midwives. They will remain committed to lifelong learning and ongoing development of interpersonal skills and always be accountable, responsible and culturally sensitive.

Entry Requirements

Candidates for the CM to RM must:

- Be a Certified Midwife who holds a valid, current license from the LBNM
- Be a graduate of an accredited midwifery school
- Currently practicing midwifery
- Present health certificate from an accredited hospital by a licensed doctor

Program Goal

Bridge the gap in the education of CMs through the provision of classroom and clinical courses introduced in the current RM training curriculum for Liberia. The program will also qualify CMs for writing the National Board Exams and RM licensure upon passing these exams.

Program Objectives

Upon the completion of the CM to RM Bridging Program, the graduate will be able to:

- Demonstrate skills in integrating midwifery theory, social sciences and evidence-based practice in planning, providing and evaluating the care of women and their families throughout their professional practice.
- Provide competent and holistic care to clients in and outside of the hospital setting
- Use available technology to advance evidence-based practice in midwifery
- Work in a culturally diversified setting using ethical and moral standards
- Precept clinical midwifery education in all practice settings
- Apply leadership skills, political awareness and collaborative strategies in interacting with peers, individuals, families, groups and communities
- Seek opportunities to continue to advance education and advocacy in midwifery
- Seek opportunities to continue professional development in midwifery
- Apply critical thinking skills in the practice of midwifery
- Acquire Registered Midwife licensure by writing and passing the National Board Exam.

Core Competencies

The CM to RM Bridging Curriculum is based upon the ICM core competencies and was designed to accommodate all CMs regardless of when they completed their original CM programs or the setting they have been working in since graduation and licensure as a CM.

Requirements for Implementation

The LBNM recommends that all institutions desiring to implement this curriculum must meet the following standards:

- The educational philosophy and purpose of the school should be formulated and accepted by the faculty. It 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 specialized area.

- Engage in periodic assessment of the curriculum
- The institution should have adequate clinical resources including its physical facilities, variety of clinical specialties and the ability to provide simulation.
- The atmosphere should be conducive to teaching and learning.
- The library should be able to provide students and faculty with up to date learning/e-learning resources that allow for the ongoing development of evidence-based care.

Qualifications of Instructors/Clinical Preceptors

Institutions must follow the ICM Global Standards for Midwifery Education in the hiring of midwifery faculty and/or clinical preceptors and meet the requirements set forth in Section II of this document.

Teaching Methodology

Courses are taught utilizing a variety of methods including lectures, discussions, role play/simulations/Objective Structured Clinical Exams(OSCEs), case studies, practicums and community-based learning experiences.

Assessment Strategies

Students are evaluated using a variety of methods including quizzes/exams, written assignments/research papers, presentations/projects, Subjective Objective Assessment Planning (SOAP) notes and clinical evaluations.

Program Evaluation

All Midwifery training programs operating in Liberia will be assessed and accredited prior to commencing the program and subsequently reassessed annually for quality assurance and are accredited every three years if it meets the accreditation assessment requirements. As a criterion for quality in health training institutions, students will be offered an opportunity to evaluate the quality of their education and instructors once a semester. Faculty peers and administrators conduct these evaluations twice yearly.

Acronym List

AFASS	Acceptable, Feasible, Affordable, Sustainable and Safe
AFB	Acid Fast Bacillus
AIDS	Acquired Immune Deficiency Syndrome
AMTSL	Active Management of the Third Stage of Labor
ANC	Antenatal Care
ANS	Autonomic Nervous System
ART	Antiretroviral Therapy
BCG	Bacille Calmette-Guerin
BID	Twice per Day (dosing of medication)
BLSS	Basic Life Saving Skills
CPT	Cotrimoxazole Preventive Therapy
CM	Certified Midwife
CMT	Cervical Motion Tenderness
CMV	Cytomegalovirus
CN	Cranial Nerve
COC	Combined Oral Contraceptive
CTX	Cotrimazole
CV	Cardiovascular
CVAT	Costovertebral Angle Tenderness
CXR	Chest X-Ray
DOB	Date of Birth
DOTS-TB	Directly Observed Treatment of TB, Short Course
DBS	Dried Blood Spot
DTR	Deep Tendo Reflexes
EFW	Estimated Fetal Weight
ELISA	Enzyme-Linked Immunosorbent Assay
EmONC	Emergency Obstetric and Newborn Care
EP	Ectopic Pregnancy
EPTB	Extrapulmonary Tuberculosis
EVD	Ebola Virus Disease
FGM/C	Female Genital Mutilation/Cutting
FP	Family Planning
HEENOT	Head, Ears, Eyes, Nose, Oral, Throat
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
HRSA	Health Resources and Services Administration
ICM	International Confederation of Midwives
ICT	Information, Communication, Technology

IDSR	Integrated Disease Surveillance and Response
IM	Intramuscular
INH	Isoniazid
IPT	Isoniazid Preventative Therapy
IPTp	Intermittent Preventive Treatment during Pregnancy
IPV	Intimate Partner Violence
IRIS	Immune Reconstitution Inflammatory Syndrome
IUD	Intrauterine Device
IUGR	Intrauterine Growth Restriction
IV	Intravenous
LBNM	Liberian Board for Nursing and Midwifery
LGA	Large for Gestational Age
LLITN	Long-Lasting Insecticide Treated Nets
MAS	Meconium Aspiration Syndrome
MiP	Malaria in Pregnancy
MOH	Ministry of Health
MTCT	Mother to Child Transmission
NACP	National AIDS Control Program
NLTCP	National Leprosy and Tuberculosis Control Program
NTM	Nontuberculosis Mycobacterium
NYU Meyers	New York University Rory Meyers College of Nursing
OSCE	Objective Structured Clinical Examination
PCR	Polymerase Chain Reaction
PERRLA	Pupils Equal, Round, Reactive to Light and Accommodation
PICT	Provider-Initiated HIV Counseling and Testing
PID	Pelvic Inflammatory Disease
PLHA	People Living with HIV/AIDS
PLWHA	People Living With HIV/AIDS
PML	Progressive Multifocal Leukoencephalopathy
PMTCT	Prevention of Mother-To-Child Transmission
POP	Progestin only Pills
PPD	may refer to Tuberculin Skin Testing *or* Postpartum Depression
PPH	Postpartum Hemorrhage
PTB	Pulmonary Tuberculosis
PTSD	Post-Traumatic Stress Disorder
RDS	Respiratory Distress Syndrome
RDT	Rapid Diagnostic Tests
Rh	Rhesus
RM	Registered Midwife
ROM	Range of Motion

SCM	Sternocleidomastoid
SGA	Small for Gestational Age
SGBV	Sexual and Gender-Based Violence
SIDS	Sudden Infant Death Syndrome
SOAP	Subjective, Objective, Assessment, Plan
SP	Sulfadoxine-Pyrimethamine
STI	Sexually Transmitted Infection
TMJ	Temporomandibular Joint
TB	Tuberculosis
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

Program Content

Sequencing

Semester 1					Semester 2				
Courses	Credits	Theory	Lab	Clinical	Courses	Credits	Theory	Lab	Clinical
Tropical and Communicable Diseases	3	42			Midwifery IV (GYN)	4	56	*	
Anatomy and Physiology II	3	42	28		Emergency Health and Disaster Response	3	28	28	
ICT in the Evaluation Research	4	56	*		Psychiatric Mental Health	4	56		
Clinical Rotation I	4		36	128	Clinical Rotation II	5			224
Total	**14**	**140**	**64**	**128**	**Total**	**16**	**140**	**28**	**224**

** ICT/Research: theory and lab occur concurrently, Midwifery IV lab time at the discretion of the course instructor*

Semester 3				
Courses	Credits	Theory	Lab	Clinical
Clinical Affiliation/Senior Seminar	13	128		168
Total	**13**	**128**		**168**

**Includes Safe motherhood package (BLSS & EmONC)*

Credit Calculations based on 14 instructional weeks
1 didactic hour per week = 1 credit hour
3 clinical (including lab) hours per week = 1 credit hour

Tropical and Communicable Diseases

Credits: 3

Duration:

16 weeks (14 instructional and 2 exam sessions)
42 instructional hours

Placement within the Curriculum:

Semester 1

Prerequisites:

Successful completion of a CM program

Course Description:

This course will introduce the students to the components of common tropical and communicable diseases, including harmful parasitic diseases and parasitology. This course will also assist the student in developing necessary knowledge and skills in parasitology and tropical diseases.
Emphasis is placed on signs and symptoms, mode of transmission, prevention, and management of the most common tropical and communicable diseases, including the parasitic diseases that are harmful to humans. Special emphasis will be placed on malaria, HIV/AIDS, TB, and Ebola virus disease (EVD).

Course Outcomes:

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
- Review transmission and case definition of Ebola
- Describe key clinical features of Ebola
- Identify steps in screening, isolation, and referral of suspected Ebola patient at

different levels of health care facilities

- Review key concepts for clinical management of EVD patients
- Discuss burden of malaria and populations at risk
- Explain the life cycle of malaria
- List the types of malaria vectors and parasites in Liberia
- Explain malaria epidemiology
- Outline the national malaria strategies
- Detail the national antimalarial treatment policy of Liberia
- Differentiate other febrile conditions, treat or refer appropriately
- Perform appropriate parasitological diagnosis on suspected cases of malaria
- Explain how parasitological diagnostic results point to appropriate malaria treatment
- Describe the importance of practicing personal protection in examining and performing tests on febrile patients
- Order or perform appropriate confirmative laboratory/parasitological tests
- Identify appropriate and approved treatment options for malaria in Liberia
- Outline the purpose of combination drug therapies in the management of confirmed malaria cases
- List the correct weight- and age-specific doses for approved combination therapy drugs in Liberia
- Identify the side effects and contraindications for approved malaria medications
- Explain the concept of malaria drug resistance and the factors that can lead to it
- Explain the steps required to counsel clients of correct malaria drug adherence
- Describe the steps and rationale for pharmacovigilance
- Explain how to recognize and respond to treatment failure
- Describe clinical assessment and diagnosis of uncomplicated malaria, including differential diagnosis
- Define severe/complicated malaria
- List the danger signs of severe/complicated malaria
- Assess and treat danger signs of severe malaria
- Conduct triage and appropriate case management of severe malaria
- Conduct a thorough assessment to determine if a patient has severe/complicated malaria
- Describe steps in responding quickly and appropriately to the needs of a patient

with severe/complicated malaria

- Outline the process for referral as needed to higher-level facility for a patient with severe/complicated malaria
- Provide pre-referral treatment to patients with severe/complicated malaria and counseling to caregivers who will take the patient to the next level facility
- Outline and carry out the management of a patient with severe/complicated malaria
- Use IV/IM artesunate, IM artemether, and IV/IM quinine according to approved MOH guidelines
- Describe malaria prevention methods
- Describe the appropriate malaria treatment for pregnant women based on trimester according to the national guidelines
- List the elements of counseling women about intermittent preventive treatment during pregnancy (IPTp)
- Describe the use of sulfadoxine-pyrimethamine (SP) for IPTp, including dosage, timing, and contraindications
- List the effects of malaria on pregnant women and their unborn babies, including women with HIV/AIDS
- Describe the malaria prevention strategies used in Liberia
- Describe the epidemiology of TB and HIV in Liberia, regionally, and globally
- Explain the roles of National Leprosy and Tuberculosis Control Program (NLTCP) and National AIDS Control Program (NACP) in relation to collaborative TB/HIV activities
- Describe the transmission and progression of TB
- Describe extrapulmonary manifestations of TB
- Describe the hierarchy of infection control
- Define HIV and AIDS and describe modes of transmission
- Describe how the HIV virus interacts with the human immune system and progression of disease
- Describe the MOH approach to HIV care
- Describe steps in initiating and maintaining cotrimoxazole preventive therapy (CPT) as prophylaxis against HIV associated infections
- Outline the process for providing antiretroviral therapy (ART)
- Describe actions to be taken in monitoring a patient on ART
- Identified the various side effects and adverse events of ART

- Describe how to manage side effects and adverse events of ART
- Discuss the management of HIV with other diseases
- Outline palliative and end-of-life measures for AIDS patients
- Describe post-exposure prophylaxis for exposure to HIV
- Describe diagnosis of HIV and TB in adults and children
- Define active and passive case
- Explain the importance of providing HIV testing to TB patients
- Describe HIV counseling and testing in Liberia, differentiating between voluntary counseling and testing (VCT) and provider-initiated HIV counseling and testing (PICT)
- Identify the basic communication and counseling skills used in PICT and demonstrate their use
- Describe the process of enrolling an HIV-positive client into a care and treatment program
- Describe important information and care to promote positive living with HIV
- Identify activities to reduce the disease burden among people living with HIV/AIDS (PLWHA)
- Discuss best practices for antenatal, intrapartum and postpartum care of the HIV-positive mother: Prevention of mother-to-child transmission (PMTCT)
- 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 actions of TB medications
- Describe the directly observed treatment of TB, short course (DOTS-TB) strategy
- Describe when to initiate CPT for malaria prevention
- Describe isoniazid (INH) preventive therapy (IPT)
- Review the current first-line regimens
- Determine when to initiate antiretroviral therapy (ART) and what regimens to use
- Review the regimens used in patients with TB and HIV
- Discuss reasons for substitutions
- Identify and describe common side effects of anti-TB and antiretroviral (ARV) medications
- Explain how to manage the side effects of anti-TB and ARV medications
- Describe immune reconstitution inflammatory syndrome (IRIS) and its

management

- Describe health care workers' duties and responsibilities regarding TB/HIV collaboration
- Describe record keeping and reporting systems used in the TB and HIV control programs
- Differentiate causes of parasitic disease based on clinical signs and symptoms (for ascaris, strongyloides, pinworm, hookworm, and trichuris)
- List at least three nematodes and the associated parasitic disease
- List at least two filarial diseases
- List at least 20 bacterial diseases common to Liberia
- 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
  - Gangrene
  - Chancroid
  - Gonorrhea
- List and discuss the treatment and control methods of specified spirochetal diseases:
  - Syphilis
  - Yaws
  - Tropical ulcer

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

Competencies:

Knowledge	Attitude/Value	Skills
Identify the common tropical and parasitic diseases with special emphasis on malaria, HIV/AIDS, TB, and Ebola	Explain the significance of tropical and infectious diseases upon Liberians	Demonstrates relevant health assessment skills used in the assessment of patients exhibiting signs and symptoms of tropical and communicable diseases
Describe the principles of prevention of selected tropical and	Consider health promotion activities as a viable strategy for the prevention of tropical	Demonstrates the safe administration of vaccines

communicable diseases	and infectious diseases	
Safely and effectively manage tropical and communicable diseases including Malaria, HIV/AIDS, TB and Ebola	Recommend early diagnosis and treatment when preventative measures are ineffective	Utilize the midwifery management process to decide when to consult, collaborate or refer cases to a higher level of care.
Describe the differences in care of pregnant women and infants suffering from tropical and communicable diseases	Consider immune system variations in pregnant women and infants as compared to the general population	

Course Content:

Unit I │ Introduction to Epidemiology and Disease Surveillance

A. Basic Definitions of Terms and Procedures
    1. Tropical Disease
    2. Communicable Disease
    3. Preventive Measures
    4. Methods of Reporting Communicable Diseases
    5. Modes of Transmission of Communicable Diseases
    6. Principles of Vaccines and Vaccination
    7. Classification of Parasitic, Fungal, Viral, and Bacterial Tropical and Communicable Diseases

Unit II │ Tropical and Communicable Diseases: Prevention and Intervention

A. Define Surveillance
B. List the Types of Surveillance
C. Define Integrated Disease Surveillance and Response (IDSR) and Its Rationale
D. Integrate Disease Surveillance
E. Analyze the Role of The Health Worker in Implementing Integrated Disease Surveillance
F. Identify the Priority Diseases for Liberia
G. Review the Standard Case Definitions for Notifiable Diseases
H. Transmission Process
I. Reportable Diseases
J. Reporting Process

K. Information Required
L. Control of Spread of Disease

Unit III │ Health Promotion

A. Health Promotion Frameworks
B. Determinants of Health and Illness
C. Communication and Behavior Change Theories
D. Culture, Gender, and Health Promotion
E. Community Mobilization
F. Health Promotion Strategies
G. Mobilizing and Managing Resources for Health Promotion Programs

Unit IV | Ebola in Liberia

A. Transmission and Case Definition of Ebola
B. Key Clinical Features of Ebola
C. Steps in Screening, Isolation, and Referral of Suspected Ebola Patient at Different Levels of Health Care Facilities
D. Key Concepts for Clinical Management of EVD Patients
E. Key Concepts for Prevention of EVD

Unit V │ Most Common Communicable Diseases in Liberia

A. Malaria
    1. The Malaria Situation in Liberia:
        a) Overview of malaria in Liberia
        b) Prevalence and transmission of malaria in Liberia
        c) Clinical signs and symptoms, laboratory findings, and rapid diagnosis test (RDT) available for malaria in Liberia
        d) Current status of progress on achieving malaria indicators in Liberia
        e) International support for prevention and case management of malaria
        f) Roll Back Malaria strategy
        g) National Malarial Policy
        h) Key malaria interventions, targets, and elements
        i) Community perception and uptake of malaria programs
    2. Epidemiology of Malaria:
        a) Transmission of malaria
        b) Causative agent
        c) Factors affecting transmission

d) Disease burden of malaria:
    (1) Effects of malaria on pregnant women and their unborn babies
    (2) Effects of malaria on pregnant women with HIV/AIDS
e) Universal coverage
f) Three components of the global strategy

3. Elimination:
    a) Test
    b) Treat
    c) Track
4. Malaria Research:
    a) Research and development
    b) Research to inform policy
    c) Operations research and implementation
5. Control:
    a) Types of vector control measures
    b) Primary interventions:
        (1) Long-lasting insecticide-treated nets (LLITNs)
        (2) Indoor residual spraying
    c) Other interventions:
        (1) Larvicide
        (2) Fogging
        (3) Repellents
    d) Environmental management
6. Malaria Case Management:
    a) Steps for proper malaria case management
    b) Malaria diagnosis (three types):
        (1) Self-diagnosis
        (2) Clinical diagnosis
        (3) Laboratory
    c) Signs and symptoms of malaria
    d) Assessing child, adult, and pregnant woman with fever
    e) Clinical assessment and diagnosis of uncomplicated malaria
    f) Clinical assessment and diagnosis of complicated/severe malaria
    g) Parasitological diagnosis:
        (1) Laboratory/microscope
    h) Advantages and disadvantages:
        (1) Rapid diagnostic tests (RDT):
    i) Advantages and disadvantage
    j) When, why, and how to use

7. Types of Malaria:
    a) Uncomplicated: Definition
    b) Complicated/severe: Definition
    c) Treatment
    d) National Malaria Treatment Policy
    e) Presumptive treatment
    f) Current recommended drug therapy
    g) Supportive care:
        (1) Manage fever
        (2) Diagnose and treat anemia
        (3) Provide fluids
    h) Assessment and treatment of danger signs
    i) Management of adverse medication reactions
    j) Pharmacovigilance
    k) Counseling for adherence
    l) Providing pre-referral and referral treatment and management for severe/complicated malaria:
        (1) Pre-referral treatment
        (2) Challenges to referral
8. Control of Malaria in Pregnancy:
    a) National strategy
    b) Consequences of malaria during pregnancy
    c) Malaria in pregnancy (MiP) strategy
    d) Elements of malaria prevention and control in pregnancy:
        (1) Promotion and use of LLITNs
        (2) Administration of intermittent preventive treatment of MIP using IPTp-SP, including dosage, timing and contraindications
        (3) Indoor residual spraying
        (4) Appropriate case management through prompt and effective diagnosis and treatments of malaria in pregnant women
    e) Uncomplicated malaria:
        (1) All trimesters
        (2) Second and third trimesters
    f) Severe or complicated malaria:
        (1) All trimesters:
            i. Quinine intravenous
9. Artemether/Artesunate IM or IV
10. Malaria and the Health System:
    a) Pharmacovigilance

b) Supervision and surveillance:
    (1) Essential elements of a surveillance system
c) Data collection and reporting
d) Malaria treatment forms

11. List the malaria prevention strategies

B. HIV/AIDS

1. Definition of HIV and AIDS
2. MOH Approach to HIV Care:
    a) Scope of care and treatment
    b) Care and treatment programs
    c) Clinical categories of patients
    d) Accreditation of healthcare facilities as care and treatment sites
    e) Organization of care and treatment programs
3. HIV Transmission:
    a) Unprotected sexual contact with an infected partner
    b) Contact with HIV-infected blood/blood products:
        (1) Blood transfusion
        (2) Injection drug use through needle-sharing
        (3) Needle stick accidents
        (4) Unsterilized needles
    c) Mother-to-child transmission:
        (1) In utero
        (2) During labor and delivery
        (3) Through breastfeeding MOH
4. Identification of HIV-Positive Individuals
5. HIV/AIDs Progression in Absence of Treatment
6. HIV and the Immune System:
    a) CD4 and viral load
    b) T-cell
7. Three Main Stages of HIV Infection:
    a) Acute infection (early immune depletion)
    b) Clinical latency (intermediate immune depletion)
    c) AIDS (severe immune depletion)
8. HIV Diagnostics:
    a) Specific laboratory tests in HIV infection
    b) HIV diagnosis:
        (1) Rapid test or ELISA
        (2) DNA polymerase chain reaction (PCR) test (for children under 18 months) (if available)
    c) Rapid HIV antibody testing

d) Rapid tests examples:
    (1) Capillus (1st test)
    (2) Determinant (2nd test)
    (3) If discordant, repeat; if still discordant, send specimens to regional lab for ELISA testing
e) HIV diagnostics in newborns:
    (1) Dried blood spot (DBS)
    (2) How to collect DBS
f) HIV testing in TB patients

9. Treatment Eligibility and Outcome:
    a) CD4 cell count
    b) Viral load (if available)
10. HIV Counseling and Testing Approaches Used in Liberia:
    a) Client-initiated HIV voluntary counseling and testing (VCT)
    b) Provider-initiated HIV testing and counseling (PICT)
    c) Mandatory HIV screening (i.e., court order)
    d) HIV testing for medical research and surveillance
11. Definitions:
    a) Voluntary testing and counseling (VCT)
    b) Provider-initiated testing and counseling (PICT):
        (1) Principles
        (2) PICT should follow the 3 “Cs”:
            i. Counseling
            ii. Consent
            iii. Confidentiality
        (3) Recommendations
        (4) Rationale
        (5) Benefits
    c) Differences between VCT and PICT
    d) Counseling procedures in PICT
    e) Counseling and communication skills for PICT
12. Pre-Test and Post-Test:
    a) Process
    b) Information
    c) Counseling
    d) Providing test results
    e) Recording test results
13. Patient Assessment for Treatment:
    a) Initial clinical assessment of HIV-positive adults, adolescents, and infants:
        (1) WHO clinical staging

(2) The importance of clinical staging

b) Recommendations for initiating ART in adults and adolescents
c) Recommendations for initiating ART in children and infants

14. Clinical Staging in HIV:
    a) Recurrent oral ulcerations
    b) Papular pruritic eruptions
    c) Seborrheic dermatitis
    d) Fungal nail infections
15. Clinical Stage 3:
    a) Weight loss > 10% of body weight
    b) Unexplained chronic diarrhea > 1 month
    c) Unexplained persistent fever (intermittent or constant) > 1 month
    d) Oral candidiasis (thrush)
    e) Acute necrotizing ulcerative gingivitis
    f) Oral hairy leukoplakia
    g) Pulmonary tuberculosis
    h) Severe bacterial infections (i.e., pneumonia, meningitis, pyomyositis)
    i) Unexplained anemia, neutropenia
16. Clinical Stage 4:
    a) HIV wasting syndrome
    b) Pneumocystis jiroveci, pneumonia (carinii)
    c) Recurrent severe bacterial pneumonia
    d) Herpes simplex virus infection, mucocutaneous > 1 month, or visceral any duration
    e) Candidiasis of the esophagus, trachea, bronchi or lungs
    f) Extrapulmonary tuberculosis (EPTB)
    g) Kaposi's sarcoma
    h) Cytomegalovirus (CMV) disease of an organ other than liver, spleen or lymph nodes
    i) Toxoplasmosis of the central nervous system
    j) HIV encephalopathy
    k) Extra pulmonary cryptococcosis
    l) Thrombocytopenia
    m) Nontuberculosis Mycobacterium (NTM), disseminated
    n) Progressive multifocal leukoencephalopathy (PML)
    o) Cryptosporidiosis with diarrhea, > 1 month
    p) Chronic isosporiasis
    q) Any disseminated endemic mycosis (i.e. Histoplasmosis, coccidioidomycosis)
    r) Recurrent septicemia (including non-typhoid salmonella)

s) Lymphoma
t) Invasive cervical cancer
u) Atypical disseminated leishmaniasis
v) Symptomatic HIV associated nephropathy or cardiomyopathy
w) Opportunistic infections

17. Common and Serious Respiratory Conditions in HIV (excluding TB):
    a) Upper respiratory tract infections
    b) Pneumonia
    c) Tuberculosis
    d) Kaposi sarcoma
    e) Lymphocytic interstitial pneumonitis (children)
18. Symptoms, Diagnosis, and Treatment:
    a) PCP:
        (1) Clinical manifestations
        (2) Treatment
    b) Gastrointestinal illnesses
    c) Oral manifestations clinical manifestations and treatment of:
        (1) Oral candidiasis (thrush) leading to esophageal candidiasis
        (2) Oral hairy leukoplakia
        (3) Acute necrotizing ulcerative stomatitis, gingivitis, or periodontitis
        (4) Mucocutaneous herpes
        (5) Chelitis
        (6) Kaposi sacroma
        (7) Aphthous ulcers
    d) Diarrhea: clinical manifestations, diagnosis and treatment of:
        (1) Non-typhoid salmonella
        (2) Cryptosporidosis
        (3) Microsporidosis
        (4) Isosporiasis
        (5) Atypical mycobacteria
        (6) Cytomegalovirus
    e) Dermatological manifestations, dermatologic descriptions, clinical manifestations and treatment of:
        (1) Herpes simplex
        (2) Varicella zoster
        (3) Disseminated varicella
        (4) Papular pruritic eruption
        (5) Seborrheic dermatitis
        (6) Kaposi sarcoma
        (7) Cutaneous cryptococcosis

f) Neurological manifestations, clinical manifestations, diagnosis and treatment of:
    (1) HIV meningitis
    (2) Bell's palsy
    (3) Guillain-Barre syndrome
    (4) Peripheral neuropathy
    (5) Myopathy/myositis
    (6) Peripheral neuropathy:
        i. HIV encephalitis
g) Cervical cancer:
    (1) Assessment
    (2) Signs and symptoms
    (3) Treatment:
        i. Preinvasive stage
        ii. Invasive stage

19. Patient Enrollment into the Care and Treatment Program:
    a) First visit
    b) Patient follow-up visits
20. Care and Treatment of People Living with HIV/AIDS (PLHA):
    a) Components of care and support
    b) Prophylaxis:
        (1) Cotrimoxazole:
            i. Indications for use in HIV
            ii. When to give CPT
            iii. Cotrimoxazole prophylaxis: children
            iv. Dosing of CTX in children
            v. Monitoring of CPT
            vi. Contraindications
            vii. Alternatives to CPT
21. Antiretroviral Therapy (ART):
    a) Definition
    b) ARV and ART
    c) Goal and benefits of ART
    d) Important information for prescribers
    e) When to start ART:
        (1) Adults and adolescents: current guidelines in Liberia
        (2) Children: current Liberian guidelines
        (3) Pregnant women
    f) Before initiating therapy:
        (1) Confirm HIV results

(2) Complete H&P
(3) CD4 count
(4) Treat any opportunistic infection
(5) Assess “readiness” for treatment and adherence

g) Reasons for deferral of ART
h) Reasons for withholding ART
i) Special considerations of ART in TB and HIV co-infected patients
j) Antiretroviral agents:
(1) Three main classes of ARV agents
(2) Additional ARV agents
k) Monitoring patients on ART:
(1) ARV treatment: toxicity and management
(2) Managing side effects
(3) Managing adverse drug reactions
(4) Steps to manage adverse events

22. In Liberia:
a) Adherence and risk for resistance
b) Description
c) The “rule” of thirds
d) Determine adherence and predicting success
e) Improving adherence
f) Adherence in special populations
g) Adherence strategies
h) Positive living: Nutrition, hygiene, risk reduction, malaria prophylaxis:
(1) Nutrition
(2) Hygiene
(3) Reducing exposure to STI’s and other strains of HIV
(4) Malaria prevention
(5) Management of HIV in the presence of other diseases
(6) Hepatitis B
(7) Kidney
(8) Liver disease
i) Palliative and end-of-life care:
(1) Symptom management
(2) Comfort
(3) Terminal care
(4) Care of body after death
j) Post-exposure prophylaxis:
(1) Occupational exposure
(2) Sexual assault

(3) Counseling for all post-exposure patients

23. Prevention of Mother-to-Child Transmission (PMTCT) of HIV:
    a) Description:
        (1) WHO four-pronged approach to PMTCT:
        (2) Primary prevention of HIV
        (3) Prevention of unintended pregnancy
        (4) ANC, labor and delivery, and postpartum interventions:
            i. Screening
            ii. Counseling
            iii. Health education
            iv. Medications
        (5) Linkages to support and care
24. Timing of Mother-to-Child Transmission of HIV:
    a) During pregnancy: 5–10%
    b) During labor and delivery: 10–20%
    c) During breastfeeding: 5–10%
25. Possible Adverse Pregnancy Outcomes with HIV Infection:
    a) Spontaneous abortion
    b) Stillbirth
    c) Perinatal mortality
    d) Newborn mortality
    e) Intrauterine growth restriction
    f) Low birthweight
    g) Preterm delivery
26. Risk Factors for MTCT:
    a) Viral:
        (1) Viral load (the higher the viral load, the greater the risk of HIV transmission)
        (2) Viral resistance
    b) Maternal:
        (1) Maternal immunological status
        (2) Maternal nutritional status
        (3) Maternal clinical status (including coinfection with an STI)
    c) Behavioral factors
    d) Antiretroviral treatment
    e) Obstetrical:
        (1) Prolonged rupture of membrane (longer than 4 hours)
        (2) Mode of delivery
        (3) Intrapartum hemorrhage
        (4) Obstetrical procedures

(5) Invasive fetal monitoring

f) Fetal:
   (1) Prematurity
   (2) Genetic
   (3) Multiple pregnancy

g) Infant:
   (1) Breastfeeding
   (2) Gastrointestinal tract factors
   (3) Immature immune system

27. PMTCT Activities:
   a) Counseling:
      (1) Educate/counsel regarding HIV and pregnancy
      (2) Counseling before pregnancy is important
      (3) Counseling HIV-positive pregnant women
   b) Provide ANC care:
      (1) ANC allows interaction between the health facility and sexually active women
      (2) Provides opportunities to discuss the interventions for reducing the risk of MTCT
      (3) Antenatal interventions to reduce MTCT
   c) HIV testing and counseling services
28. Behavior Change Communication:
   a) Sexual activity
   b) Injection drug use
   c) Alcohol use and smoking
29. Prevention of New Infections in Pregnancy:
   a) Identification and treatment of STIs (including genital ulcers and abnormal vaginal discharge)
   b) Prevention and treatment of anemia (balanced diet and nutritional supplementation)
   c) Avoiding invasive testing procedures in pregnancy
   d) Antiretroviral prophylaxis for HIV-positive mother
   e) ARVs should be provided as needed to the mother for her health as well as for the health of the baby
   f) Physical examination to detect any signs of HIV-related illness
   g) Iron and folate
   h) Multivitamin supplementation
   i) Tetanus toxoid immunization
   j) Intermittent preventive treatment (IPTp-SP) for malaria
   k) Intrapartum activities

30. Use of Universal IP Precautions:
    a) Application of good infection prevention practices during pelvic examinations and delivery
    b) Avoid unnecessary artificial rupture of membranes
    c) Avoid prolonged labor and prolonged rupture of membranes
    d) Avoid unnecessary trauma during delivery:
        (1) Unnecessary episiotomy
        (2) Fetal scalp electrode monitoring
        (3) Forceps delivery
        (4) Vacuum extraction
31. Minimize Risk of PPH (to protect mother's health and decrease provider exposure to blood):
    a) Active management of third stage
    b) Uterine massage
32. Provide Newborn Care:
    a) Give antiretroviral agents, if available
    b) Watch for anemia
    c) Follow up infant for infection prevention
    d) Handle all babies, regardless of the mother's HIV status, with gloves until maternal blood and secretions are washed off
    e) Avoid suctioning unless presence of meconium
    f) Breastfeeding decisions and implications
    g) BCG should be administered according to the national/WHO immunization guideline
    h) Administer ARV according to protocol for eligible women and newborn
33. Care for Exposed Infant:
    a) Infant feeding options for the HIV-infected mother:
        (1) Exclusive breastfeeding up to age 6 months
        (2) Exclusive bottle feeding considering that formula is acceptable, feasible, affordable, sustainable, and safe (AFASS)
34. Provide FP Counseling and Services

C. Tuberculosis (TB)
1. Global View of TB Infection:
    a) Global TB epidemiology and burden of disease
    b) The End TB Strategy/post 2015 Global TB strategy
    c) Global TB control targets
2. TB Situation in Liberia
3. National Leprosy and TB Control Program (NLTCP):
    a) Roles of NLTCP and NACP
    b) Roles of health workers

4. Tuberculosis Disease (TB)
5. Epidemiological Definitions:
    a) Prevalence
    b) Incidence
    c) Mortality
    d) Case fatality
    e) TB morbidity
    f) Infected pool
    g) Infectious pool
6. Diagnosing TB:
    a) Bacteriology:
        (1) Smear negative/smear positive
        (2) History of previous TB
        (3) Case definitions
        (4) Case detection rates
7. Classification and Types of TB:
    a) Severity of disease
    b) Site of disease
    c) Pulmonary/extra pulmonary
    d) Treatment of TB
    e) Multidrug resistant
8. Treatment of TB In Special Situations
9. TB and Infection Control
10. TB and EVD
11. TB and HIV:
    a) Magnitude and distribution of HIV and AIDS in Liberia
    b) Effects of HIV on incidence of TB
    c) Collaborative TB/HIV activities:
        (1) Goal and objectives
        (2) Rationale
12. Monitoring and Follow-up of TB Patient
13. Management and Screening of Contacts
14. TB Diagnostic Approaches:
    a) Patient history and examination
    b) Laboratory examinations:
        (1) Acid Fast Bacillus (AFB) microscopy for sputum and aspirates
        (2) Culture: sputum, aspirates for EPTB
        (3) Histological examination: biopsy tissue
    c) Screening of TB suspects:
        (1) Active case finding

(2) AFB sputum smear microscopy
(3) Techniques of collecting sputum for microscopy
(4) False positive sputum smear microscopy result
(5) False negative sputum smear microscopy result
(6) Chest x-ray (CXR)

d) Other diagnostic methods:
(1) Tuberculin skin test: Indicates mycobacterium infection, not the presence of TB disease

15. TB in Children:
a) Progression
b) Signs suggestive of TB in children
c) Tools for TB diagnosis in children:
(1) Clinic (symptoms consistent with TB+, clinical examination)
(2) Sputum smear microscopy
(3) CXR
(4) Tuberculin skin testing (PPD)
(5) TB score of Keith Edwards
(6) Others (QuantiFERON®-TB gold test, PCR)
d) Recommended approach to diagnose TB in children:
(1) Careful history (including history of TB contact and symptoms consistent with TB)
(2) Clinical examination (including growth assessment)
(3) TB score
(4) Bacteriological confirmation whenever possible
(5) PPD
(6) Investigations relevant for suspected PTB and suspected EPTB, i.e., CXR, ultrasound
(7) HIV testing (in high HIV prevalence areas)

16. Patient Education
17. Monitoring Patient Treatment Response:
a) New sputum smear positive patients
b) New sputum smear negative pulmonary patients
c) Previously treated pulmonary sputum positive patients

18. Medication Interruption:
a) Less than 1 month
b) Less than 2 months
c) More than 2 months (defaulters)

19. Treatment Outcomes Definitions:
a) Cure
b) Treatment completed

c) Failure
d) Died
e) Defaulter
f) Transfer out

20. Drug Resistance:
    a) Primary drug resistance
    b) Acquired drug resistance
21. Directly Observed Treatment, Short Course (DOTS):
    a) Health facility-based DOTS
    b) Community-based DOTS
    c) Five key components:
        (1) Political commitment and increase and sustained financing
        (2) Case detection through quality assured microscopy
        (3) Standardized treatment with supervision of the patient:
            i. All health care workers should provide DOTS
            ii. DOTS should be observed in all phases of treatment
            iii. All patients should receive treatment adherence counseling
            iv. Patients lost to follow-up should be traced, retrieved, and attempts made for adherence
            v. There can be flexibility in observing patients
        (4) Uninterrupted supply of quality assured medications
        (5) Monitoring and evaluation system and impact measurement
22. TB Preventive Treatment:
    a) BCG vaccine
    b) Scale-up PMTCT
    c) Chemoprophylaxis
    d) Isoniazid preventive therapy (IPT)
23. Other Treatment:
    a) Nutritional support
    b) HIV care and treatment
24. Side Effects of Anti-TB and ARV Drugs and Drug Interactions:
    a) Introduction/description
    b) Types:
        (1) Minor
        (2) Major (potentially dangerous)
    c) Consequences of side effects
    d) Conditions for increased risk of severe side effects
25. Side Effects of Anti-TB Medications:
    a) Reason
    b) Adverse reaction

c) Signs and symptoms

26. Side Effects of Anti-TB Medications and ARVs:
    a) How to assess/identify
    b) Common side effects:
        (1) Nausea
        (2) Diarrhea
        (3) Rash
        (4) Fatigue
    c) CNS effects
    d) Severe side effects:
        (1) Hepatotoxicity
        (2) Stevens Johnson syndrome
        (3) Mitochondrial toxicity-hyperlactatemia
    e) Other side effects:
        (1) Zidovudine-associated anemia
27. Side Effects of Cotrimoxazole
28. Metabolic Effects of Protease Inhibitors
29. Anti-TB and ARV Medications Interaction and Overlap
30. Immune Reconstitution Inflammatory Syndrome (IRIS):
    a) Description
    b) Risk factor
    c) Clinical presentation of IRIS
    d) Prevention of IRIS
31. TB IRIS:
    a) Description
    b) Management of TB IRIS
32. Decreasing the Burden of TB in People Living with HIV and AIDS (PLWHA):
    a) Establish intensified TB case finding
    b) Introduce INH preventive therapy
    c) Ensure TB infection control in health care settings and congregate settings
    d) Provide information about TB and treatment
33. Decreasing the Burden of HIV in TB patients:
    a) Provide HIV counseling and testing
    b) Introduce HIV prevention methods
    c) Introduce CPT
    d) Ensure care and support
    e) Provide ARV therapy

D. For Each Disease Listed, the Following Will Be Covered
    1. Infectious Agents (and lifecycle if parasitic)
    2. Reservoir
    3. Mode of Transmission
    4. Epidemiology
    5. Incubation/Communicability Period
    6. Carriers
    7. Patterns of Susceptibility and Resistance
    8. Methods of Control and Prevention
    9. Treatment Measures

Unit VI │ Protozoal Diseases

A. Black Water Fever
B. Trypanosomiasis
C. Leishmaniasis
D. Amebiasis
E. Giardiasis
F. Balantidiasis (associated with raising pigs)
G. Trichomoniasis

Unit VII │ Nematodes

A. Definition/Description of Nematodes
    1. Ascaris
    2. Hookworm
    3. Guinea Worm
    4. Strongyloides
    5. Trichuris
    6. Pinworm
B. Illnesses

Unit VIII │ Cestodes

A. Taenia Solium
B. Taenia Saginata

Unit IX │ Trematodes/Schistosomiasis

A. S. Haematobium
B. S. Mansoni

Unit X │ Filaria

A. Elephantiasis
B. Onchocerciasis

Unit XI │ Bacterial Diseases

A. Typhoid
B. Bacillary Dysentery/Shigella
C. Salmonella
D. Cholera
E. Bacterial Food Poisoning
F. Botulism
G. Brucellosis
H. Gangrene
I. Pneumococcal Pneumonia
J. Pertussis
K. Strep And Staph Infection
L. Meningitis
M. Diphtheria
N. Tetanus
O. Plague
P. Chancroid
Q. Gonorrhea

Unit XII │ Mycobacterial Diseases

A. Leprosy
B. Buruli Ulcer

Unit XIII │ Spirochetal Diseases

A. Syphilis
B. Yaws
C. Tropical Ulcer

Unit XIV │ Viral Diseases

A. Ebola
B. Lassa Fever
C. Yellow Fever

D. Measles
E. Chicken Pox
F. Herpes Zoster
G. Influenza A And B
H. Common Cold
I. Rubella
J. Polio
K. Rabies
L. Mumps
M. Hepatitis A
N. Hepatitis B
O. Dengue
P. Lymphogranuloma Inguinale

Unit XV │ Fungal Diseases

A. Tinea (ringworm)
B. Histoplasmosis
C. Candida

Unit XVI │ Insect-Related Diseases/Ectoparasitic Infestations

A. Scabies
B. Jiggers
C. Lice

Teaching/Learning Strategies:

- Interactive classroom lecture/discussion
- Group exercises
- Demonstration-return demonstration
- Case study
- Lab simulation practice
- Homework and laboratory assignments

Course Expectations:

- Regular classroom and laboratory session attendance
- Come to class prepared having completed all homework and reading assignments
- Participate actively in classroom sessions

- Complete all assignments and examination on due dates

Required Resources:

- Textbooks/reading materials
- Skills lab

Assessment Criteria – Standard Grading System:

- Quizzes 15%
- Assignments 15% (written and oral)
- Attendance 5%
- Midterm Exam 25%
- Final Exam 40%

References:

John D, Petri W. 2006. *Markell and Voge's Medical Parasitology*, 9th ed. Elsevier.

Eddleston M, Davidson R, Brent A, Wilkinson R. 2008. *Oxford Handbook of Tropical Medicine*. 3rd ed. Oxford: Oxford University Press.

Heyman DL. 2015. *Control of Communicable Diseases Manual*, 20th ed. Washington DC: American Public Health Association.

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

Guidelines for EVD diagnoses, assessment, and treatment

References: slides with synopsis of infectious and tropical diseases.

Anatomy & Physiology II

Credits: 3

Duration:

16 weeks (14 instructional and 2 exam sessions)
42 instructional hours – class meets for one 3-hour session per week x14w
28 lab hours – class meets for one 2-hour session per week x14w

Placement within the Curriculum:

Semester 1

Prerequisites:

Successful completion of a CM program

Course Description:

This course provides the student an opportunity to review the normal structure and function of the organ systems. After a brief review of each system, students will explore selected topics in clinical pathology. The content also includes systems responsible for reproduction and development. The course includes a laboratory component to enhance learning of the structure and function of the organs of the body. The learner will carry out direct observation on anatomical models, perform exercises and testing of concepts learned to enhance learning.

Course Outcomes:

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

- Identify the names and location of basic body parts.
- Describe the functions of major parts of the body.
- Describe the integration of multiple organs for support and locomotion.
- Articulate how the nervous, sensory and endocrine systems work in synchrony to integrate and control vital functions.
- Apply knowledge of organ system to selected clinical conditions.
- Analyze the pain pathways from the peripheral nerve endings to the brain and back.
- Use appropriate medical terminologies in discussion and written communication.

Competencies:

Knowledge	Attitudes/Values	Skills
Name the parts of the body and their location.	Value the knowledge of anatomy and physiology in providing safe and quality nursing care.	Using the anatomical model and/or charts, name the different parts of the body.
Describe the function of major parts of the body.	Appreciate how the body works.	Articulate the function of each organ systems.
Describe the integration of multiple organs to support and mobilize the body.	Value the importance of how multiple organs work to facilitate body functions	Perform experiment to demonstrate membrane transport such as diffusion and osmosis
Describe the range of motion of the musculoskeletal system.	Value the body's ability to maintain motion.	Demonstrate the different range of motion of major joints in the body.
Apply knowledge of anatomy and physiology to understand selected clinical conditions.	Appreciate the knowledge of how different organs work together to promote vital functions.	Create a concept map that demonstrate the projection of pain pathways in the peripheral to the central nervous system.
Decipher the meaning of medical terms by analyzing the word parts.	Value the importance of using appropriate medical terminology to communicate with peers and other members of the healthcare team.	Use appropriate medical terminology to communicate verbally and in writing.

Course Content:

Unit I │The Circulatory System

A. Blood Components
   1. Blood Plasma
   2. Erythrocytes:
      a) Function
      b) Hemoglobin
      c) Erythrocyte Disorders: Anemia, Sickle Cell
   3. Blood Types:
      a) ABO Group
      b) The RH Group
      c) Clinical Application: Blood Transfusion

4. Leukocytes:
    a) Form and Function
    b) Types & Leukocyte Life History
    c) Leukocyte Disorder: Leukemia
5. Platelets and Hemostasis – Control of Bleeding:
    a) Form and Function
    b) Platelet Production
    c) Hemostasis
    d) Prevention of Inappropriate Clotting
    e) Clotting Disorder: Liver Disease and Blood Clotting

B. The Heart
1. Overview of the Cardiovascular System:
    a) Pulmonary and Systemic Circuits
    b) Gross Anatomy of the Heart
    c) Circulation:
        (1) Blood Flow to the Heart
        (2) Coronary Artery Circulation
    d) Cardiac Muscle and Conduction System
    e) Nervous Innervation of the Heart
    f) The Cardiac Cycle
    g) Heart Sounds
    h) Cardiac Output:
        (1) Heart Rate
        (2) Stroke Volume
        (3) Exercise and Cardiac Output
2. Clinical Application:
    a) Angina and Myocardial Infarction
    b) Cardiac Arrhythmias
    c) Coronary Artery Disease

C. Blood Vessels and Circulation
1. General Anatomy of the Blood Vessel:
    a) The Vessel Wall
    b) Arteries, Capillaries and Veins
2. Blood Pressure, Resistance and Flow:
    a) Blood Pressure
    b) Peripheral Resistance
    c) Regulation of Blood Pressure and Flow
    d) Vasoreflexes

3. Capillary Exchange:
    a) Diffusion
    b) Filtration and Reabsorption
    c) Edema
4. Venous Return and Circulatory Shock:
    a) Mechanisms of Venous Return
    b) Venous Return and Physical Activity
    c) Circulatory Shock
5. Special Circulatory Routes:
    a) Brain
    b) Skeletal Muscles
    c) Lungs
6. Clinical Application:
    a) Hypertension
    b) Air Embolism
    c) Arterial Pressure Points

Unit II │The Lymphatic and Immune System

A. The Lymphatic System
    1. Lymph and Lymphatic Vessels
    2. Lymphatic Cells
    3. Lymphatic Tissues
    4. Lymphatic Organs
B. Nonspecific Resistance
    1. Leukocytes and Macrophages
    2. Antimicrobial Macrophages
    3. Antimicrobial Proteins
    4. Natural Killer Cells
    5. Fever and Inflammation
C. General Aspects of Adaptive Immunity
    1. Forms of Immunity
    2. Antigens
    3. Lymphocytes
D. Cellular Immunity
    1. Recognition
    2. Attack
    3. Memory
E. Humoral Immunity
    1. Recognition

2. Attack
3. Memory

F. Clinical Application
    1. Asthma
    2. Lymph Nodes and Metastatic Cancer

Unit III │Respiratory System

A. Anatomy of the Respiratory System
B. Pulmonary Ventilation
    1. Respiratory Muscles
    2. Neural Control of Breathing
    3. Pressure, Resistance, and Airflow
    4. Alveolar Ventilation
    5. Spirometry
    6. Variations in Respiratory Rhythm
C. Gas Exchange and Transport
    1. Composition of Air
    2. Alveolar Gas Exchange
    3. Gas Transport
    4. Systemic Gas Exchange
    5. Alveolar Gas Exchange
    6. Blood Gases and The Respiratory System
D. Clinical Application
    1. Chronic Pulmonary Disease
    2. Smoking and Lung Cancer
    3. Carbon Monoxide Poisoning

Unit IV │Renal System

A. The Kidneys
    1. Anatomy and Physiology:
        a) Position and Associated Structures
        b) Gross Anatomy
        c) Renal Circulation
        d) The Nephron
        e) Renal Innervation
        f) Functions of the Kidneys and Excretion
    2. Urine Formation:
        a) Glomerular Filtration

b) Tubular Reabsorption
c) Water Conservation

3. Urine and Renal Function Tests
4. Urine Storage and Elimination
5. Clinical Application:
    a) Kidney Stones (Nephrolithiasis)
    b) Urinary Tract Infection
    c) Urination and Spinal Cord Injury
    d) Renal Insufficiency and Hemodialysis

B. Water-Electrolyte and Acid-Base Balance
1. Water Balance:
    a) Fluid Compartments
    b) Water Gain and Loss
    c) Regulation of Intake and Output
    d) Disorders of Water Balance
2. Electrolyte Balance:
    a) Sodium
    b) Potassium
    c) Chloride
    d) Calcium
    e) Magnesium
    f) Phosphates
3. Acid-Base Balance:
    a) Acids, Bases and Buffers
    b) Respiratory Control of Ph
    c) Renal Control of Ph
    d) Compensation for Acid-Base Balance
    e) Disorders of Acid-Base Balance
4. Clinical Application:
    a) Fluid Replacement Therapy

Unit V │Digestive System

A. Digestive Anatomy and Physiology
1. General Anatomy
2. Digestive Function
3. Regulation of Digestive Tract

B. The Digestive Through Elimination Process
1. Mouth Through Esophagus:
    a) Mastication

b) Salivary Secretions
c) Swallowing

2. The Stomach:
   a) Innervation and Circulation
   b) Microscopic Anatomy
   c) Gastric Secretions and Motility
   d) Digestion and Absorption
   e) Protection and Regulation of Gastric Function
3. The Liver, Gall Bladder and Pancreas:
   a) Regulation of Secretions
4. The Small Intestines:
   a) Gross and Microscopic Anatomy
   b) Intestinal Secretions
   c) Intestinal Motility
5. Chemical Digestion and Absorption
6. The Large Intestines:
   a) Gross and Microscopic Anatomy
   b) Intestinal Microbes

C. Clinical Application
1. Peptic Ulcer
2. Gall Stones
3. Lactose Intolerance

Unit VI │Nutrition and Metabolism

A. Nutrition
   1. Body Weight and Energy Balance
   2. Appetite
   3. Calories and Nutrients
   4. Carbohydrates and Fibers
   5. Lipids and Proteins
   6. Minerals and Vitamins

B. Metabolism
   1. Carbohydrate Metabolism
   2. Lipid and Protein Metabolism
   3. Metabolic States and Metabolic Rate
   4. Body Heat and Thermoregulation

C. Clinical Application
   1. Alcohol and Alcoholism
   2. Malnutrition

3. Pica

Unit VII │The Integumentary System

A. The Skin and Subcutaneous Tissue
B. Hair and Nails
C. Cutaneous Glands
D. Skin Disorders to Illustrate Above:
   1. Skin Cancer
   2. Burns

Unit VIII │ Skeletal and Muscular Systems

A. Bone Tissue
   1. Histology of Osseous Tissue:
      a) Bone cells
      b) Matrix
      c) Bone types: compact, spongy and bone marrow
   2. Bone Development
   3. Physiology of Osseous Tissue
   4. Clinical Application:
      a) Fractures and their Repair
      b) Osteoporosis

B. The Skeleton
   1. Overview:
      a) Bones of the skeletal system
      b) Anatomic features of the bones
   2. The Skull
   3. The Vertebral Column and Thoracic Cage
   4. The Pectoral Girdle and Upper Limb
   5. The Pelvic Girdle and Lower Limb

C. Joints
   1. Classification
   2. Movements of Synovial Joints
   3. Anatomy of Selected Diaphoresis (jar, shoulder, elbow, hip. Knee)
   4. Clinical Application:
      a) Temporomandibular joint (TMJ) syndrome
      b) Knee injuries and arthroscopic surgery
      c) Rheumatoid arthritis

D. The Muscles
    1. Organization of Muscles:
        a) Muscles of the head and neck
        b) Muscles of the trunk
        c) Muscles of the shoulder and upper limb
        d) Muscles of the hip and lower limb
        e) Common athletic injuries to illustrate above
    2. Muscular Tissue:
        a) Types and characteristics
        b) Microscopic anatomy
        c) Nerve-muscle relationship
        d) Behavior of skeletal muscle fibers
        e) Muscle metabolism
        f) Cardiac and smooth muscle
    3. Clinical Application:
        a) Muscular dystrophy
        b) Myasthenia gravis

Unit IX │ Nervous System, Spinal Cord, Brain and Cranial Nerves

A. Overview of the Nervous System
    1. Properties of Neurons
    2. Supportive Cell (neuroglia)
    3. Electrophysiology of the Neurons
    4. Synapses
    5. Neural Integration
    6. Clinical Application:
        a) Alzheimer's disease
        b) Parkinson's disease
B. The Spinal Cord
    1. Functions and Surface Anatomy:
        a) Meninges and spinal cord
        b) Spinal tracts
        c) The spinal nerves
        d) Anatomy of nerves and ganglia
        e) Nerve plexus
        f) Cutaneous innervation and dermatoses
    2. Somatic Reflexes:
        a) Nature of reflexes
        b) The muscle spindle

c) Stretch reflex
d) Flexor (withdrawal) reflex
e) Crossed extension reflex
f) Tendon reflex

3. Clinical Application:
    a) Spinal cord trauma
    b) Pain pathways

C. The Brain and Cranial Nerves
1. Overview of the Brain:
    a) Major landmarks
    b) Gray and white matter
    c) Embryonic development
2. Meninges, Ventricles, Cerebrospinal Fluid and Blood Supply
3. The Hindbrain and Midbrain:
    a) Medullar oblongata
    b) The pons
    c) The Midbrain
    d) The reticular formation
    e) The cerebellum
4. The Forebrain:
    a) Diencephalon
    b) Cerebrum
5. Integrated Functions of the Brain
6. The Cranial Nerves
7. Clinical Application:
    a) Cerebral palsy
    b) Concussion
    c) Encephalitis
    d) Epilepsy

D. The Autonomic Nervous System and Visceral Reflexes
1. General properties of the Autonomic Nervous System (ANS):
    a) Visceral reflexes
    b) Division of the autonomic nervous system
    c) Autonomic output pathways
2. Anatomy of the ANS:
    a) Sympathetic division
    b) Adrenal glands
    c) Parasympathetic division
    d) Enteric nervous system

3. Autonomic Effects on Target Organs:
    a) Neurotransmitter and their receptors
    b) Dual innervation
    c) Control without dual innervation
4. Central Control of Autonomic Function
5. Clinical Application:
    a) Drugs and nervous system

E. Sense Organs
1. Properties and Types of Sensory Receptors
2. The General Senses
3. The Chemical Senses
4. Hearing and Equilibrium
5. Vision
6. Clinical Application:
    a) Middle-ear infection
    b) Deafness
    c) Cataracts

Unit X | The Endocrine System

A. Overview of the Endocrine System
1. Endocrine vs Exocrine
2. Comparison of Nervous and Endocrine System
3. Hormones

B. The Hypothalamus and Pituitary Gland
1. Anatomy
2. Hypothalamic Hormones
3. Anterior and Posterior Hormones
4. Control of Pituitary Hormones

C. Other Endocrine Glands
1. Pineal Gland
2. The Thymus
3. The Thyroid Gland
4. Parathyroid Glands
5. Adrenal Glands
6. Pancreatic Islets
7. The Gonads

D. Hormones and their Actions
1. Hormone Synthesis and Transport
2. Hormone Receptors and Mode Of Action

3. Hormone Interactions and Clearance

E. Stress and Adaptation
   1. Alarm Reaction
   2. Stage of Resistance
   3. Stage of Exhaustion

F. Clinical Application
   1. Hyposecretion and Hypersecretion
   2. Pituitary Disorders
   3. Thyroid and Parathyroid Disorders
   4. Adrenal Disorders
   5. Diabetes Mellitus

Unit XI | Reproductive System

A. Sexual Reproduction and Development
   1. Male and Female Sexes
   2. Overview of Reproductive System
   3. Chromosomal Sex Determination
   4. Prenatal Hormones and Sexual Differentiation
   5. Descent of the Gonads

B. Male Reproductive System
   1. Parts of the Male Anatomy
   2. Function
   3. Endocrine Control
   4. Spermatogenesis
   5. Clinical Application:
      a) Prostate Disease

C. The Female Reproductive System
   1. Part of the Female Anatomy:
      a) The Genitalia
      b) Breasts And Mammary Glands
   2. Puberty and Menopause
   3. Sexual Cycle
   4. Pregnancy and Childbirth:
      a) Prenatal Development
      b) Hormones Of Pregnancy
      c) Lactation
   5. Clinical Application:
      a) Evolution of Menopause
      b) Endometriosis
      c) Pap Smears and Cervical Cancer

Teaching/Learning Strategies:

- Interactive classroom lecture/discussion
- Group exercises
- Demonstration-return demonstration
- Case study
- Lab simulation practice
- Homework and laboratory assignments

Course Expectations:

- Regular classroom and laboratory session attendance
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and skills laboratory sessions
- Complete all assignments and examination on due dates

Required Resources:

- Handouts/reading materials
- Skills lab
- Anatomical models/charts
- Skeleton
- Microscope

Assessment Criteria – Standard Grading System:

- Quizzes 15%
- Assignments 15%
- Attendance 5%
- Midterm Exam 25%
- Final Exam 40%

References:

Saladin, K. S., (2018). Anatomy and Physiology: The Unity of Form and Function (8th ed). New York, N.Y.: McGraw-Hill Education.

Information, Communication and Technology (ICT) in the Evaluation of Research

Credits: 4

Placement within the Curriculum:

Semester 1

Prerequisites:

Successful completion of a CM program

Duration:

16 weeks (14 instructional and 2 exam sessions)
56 hours – class meets in the computer lab twice weekly for two hours each session x14w

Course Description:

This course equips the learner with the knowledge and skills needed to apply concepts of ICT to the health care delivery system. A strong emphasis is placed on its application to the research process including evaluation of the literature and implementation of evidenced based care strategies. ICT is taught in the computer lab to provide an environment for hands on application of concepts.

Course Outcomes:

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

- Use ICT to enhance knowledge base through improved research strategies and critical reading skills
- Appreciate the relationship between ICT and quality, evidence-based care
- Access databases available on the internet
- Develop an effective search strategy by identifying appropriate key terms and using advanced search options
- Identify the characteristics of scholarly resources
- State the common sections of a research study
- Evaluate the hypothesis, study methods and results of a research study
- Define plagiarism

- Appropriately cite references in your own work

Competencies:

Knowledge	Attitudes/Values	Skills
Perform basic foundational computer skills	Appreciate the importance of basic computer skills for the advancement of midwifery	See skills checklist
Successfully navigate the following applications: • Word • PowerPoint • Excel • Internet (browser) • Email (server)	Appreciate the relationship between ICT and quality, evidence-based care	See skills checklist
Develop an effective search strategy	Recognize the importance of an effective literature search	Identifying appropriate key terms
Identify the characteristics of scholarly resources	Justify the importance of high-quality research	Distinguish between primary and secondary references
State the common sections of a research study	Recognize the importance of each section to your ability to comprehend and critique the study	Practice critically reading primary sources
Evaluate the hypothesis, study methods and results of a research study	Have an appreciation for the scientific method	Practice critically reading these sections
Define plagiarism	Respect the importance of giving credit to authors for their work	Learn how to quote, paraphrase and summarize appropriately
Appropriately cite references in your own work	Respect the work of others as well as your own work	Cite references in appropriate format

Course Content:

Unit I | Weeks 1-4 (Sessions 1-8)

A. Write a Response to the Following Prompts:
   1. Why did you decide to become a CM and why have you decided to become an RM?

2. What are you most interested in learning about in the CM to RM Bridging Program?
3. What about this program makes you feel nervous or anxious?

B. After writing a response to the prompt, students will use the skills checklist to practice important computer skills.

***Responses to the prompts are NOT graded, rather students are graded on their completion of the skills checklist. These skills are essential to student learning throughout the program and will be used throughout their midwifery career.

Unit II: Week 5-7 (sessions 9-14)

A. How to Critically Read and Analyze a Research Study
   1. How to Read and Understand a Scientific Article by Dr. Jennifer Raff
   2. Sample articles (Noted with * in reference list, all are free, open access at: bmjopen.bmj.com or npmj.org)
   3. Free and Open Access Databases (see full citations in reference list):
      a) "Free Full Text Articles": Where to Search for Them
      b) 101 Free Online Journal and Research Databases for Academics

B. Sections of a research study
   1. Abstract
   2. Introduction
   3. Methods:
      a) Setting
      b) Design
      c) Sample size
      d) Sampling procedures
      e) Data collection instruments/procedures
      f) Variables
      g) Ethical considerations
   4. Results
   5. Discussion
   6. Conflicts of interest
   7. References

Assignment: Carefully read the 11 steps in the article by Dr. Raff (located below the reference list). Select a research study of interest to you, preferably in a clinical area that you feel you need to learn more about and answer the questions within each of the 11 steps in a Word document. Email this document to your professor when you are finished. You have one week to complete each assignment.

Week 8 : Midterm Exam

Unit III: Weeks 9-15 (Sessions 15-28)

In the second half of this course, students are given ample class time to develop a brief term paper (3 pages-not to exceed 4 pages)

A. Week 9: select a topic (to maximize your learning/exposure to new information, students should choose a unique topic)
B. Week 10: Literature search
C. Week 11: Create outline (to be approved by instructor before beginning to write)
D. Weeks 12-13: Write paper
E. Weeks 14-15: Create PowerPoint Presentation
F. Week 16 Presentations to classmates and instructors

Teaching/Learning Strategies:

- Demonstration-return demonstration
- Lab practice
- Reading assignments/articles (homework)

Course Expectations:

- Regular attendance
- Come to class prepared
- Participate actively in sessions
- Complete all assignments by the assigned due dates

Required Resources:

- Skills checklist
- Skills lab
- Computers/Internet access

Assessment Criteria – Standard Grading System:

- Attendance 5%
- Satisfactory Completion of Skills Checklist 15%
- Midterm 15%
- Weekly Assignments for weeks 5-7 (3 total) 30%
- Term Paper 20%
- Presentation 15%

References:

American Psychological Association. (2010). *Publication Manual of The American Psychological Association, 6th ed.* Washington, D.C: American Psychological Association.

*Batura, N., Cuevas, C., Khan, M. & Wiseman, V. (2018). How effective and cost-effective are behaviour change interventions in improving the prescription and use of antibiotics in low-income and middle-income countries? A protocol for a systematic review. *BMJ Open*; **8:**e021517. doi: 10.1136/bmjopen-2018-021517

*Gartland, G., Taryor, V., Norman, M. & Vermund, S. (2012). Access to facility delivery and caesarean section in north-central Liberia: a cross-sectional community-based study. *BMJ Open*; **2:**e001602. doi: 10.1136/bmjopen-2012-001602

Kaydor, V., Adeoye, I., Olowolafe, T. & Adekunle, A. (2018). Barriers to acceptance of postpartum family planning among women in Montserrado County, Liberia. *Nigerian Postgraduate Medical Journal;* 25:3, 143-148. 10.4103/npmj.npmj_96_18

Raff, J. (2013) How to read and understand a scientific article. https://violentmetaphors.com/2013/08/25/how-to-read-and-understand-a-scientific-paper-2/

Scribendi (2019). 101 Free on-line journals and research databases for academics. https://www.scribendi.com/advice/free_online_journal_and_research_databases.en.html

Singh, A., Singh, M., Singh, A. K., Singh, D., Singh, P., & Sharma, A. (2011). "Free full text articles": where to search for them? *International journal of trichology*, *3*(2), 75-9.

Woode, M., Khan, J., Thomson, R. & Wilhelmus-Niessen, L., the COUNTDOWN Consortium, et al.* (2018). Equity and efficiency in the scaled-up implementation of integrated neglected tropical disease control: The health economics protocol of the COUNTDOWN multicountry observational study in Ghana, Cameroon and Liberia. *BMJ Open*; **8:**e020113. doi: 10.1136/bmjopen-2017-020113

How to Read and Understand a Scientific Article

Dr. Jennifer Raff

To form a truly educated opinion on a scientific subject, you need to become familiar with current research in that field. And to be able to distinguish between good and bad interpretations of research, you have to be willing and able to read the primary research literature for yourself. Reading and understanding research papers is a skill that every single doctor and scientist has had to learn during graduate school. You can learn it too, but like any skill it takes patience and practice.

Reading a scientific paper is a completely different process from reading an article about science in a blog or newspaper. Not only do you read the sections in a different order than they're presented, but you also have to take notes, read it multiple times, and probably go look up other papers in order to understand some of the details. Reading a single paper may take you a very long time at first, but be patient with yourself. The process will go much faster as you gain experience.

The type of scientific paper I'm discussing here is referred to as a primary research article. It's a peer-reviewed report of new research on a specific question (or questions). Most articles will be divided into the following sections: abstract, introduction, methods, results, and conclusions/interpretations/discussion.

Before you begin reading, take note of the authors and their institutional affiliations. Some institutions (e.g. University of Texas) are well-respected; others (e.g. the Discovery Institute) may appear to be legitimate research institutions but are actually agenda-driven. *Tip: google "Discovery Institute" to see why you don't want to use it as a scientific authority on evolutionary theory.*

Also take note of the journal in which it's published. Be cautious of articles from questionable journals, or sites that might resemble peer-reviewed scientific journals but aren't (e.g. Natural News).

Step-by-Step Instructions for Reading a Primary Research Article

1. Begin by reading the introduction, not the abstract.
The abstract is that dense first paragraph at the very beginning of a paper. In fact, that's often the *only* part of a paper that many non-scientists read when they're trying to build a scientific argument. (This is a terrible practice. Don't do it.) I always read the abstract last, because it contains a succinct summary of the entire paper, and I'm concerned about inadvertently becoming biased by the authors' interpretation of the results.

2. Identify the *big* question.
Not "What is this paper about?" but "What problem is this entire field trying to solve?" This helps you focus on why this research is being done. Look closely for evidence of agenda-motivated research.

3. Summarize the background in five sentences or less.
What work has been done before in this field to answer the big question? What are the limitations of that work? What, according to the authors, needs to be done next? You need to be able to succinctly explain why this research has been done in order to understand it.

4. Identify the *specific* question(s).
What exactly are the authors trying to answer with their research? There may be multiple questions, or just one. Write them down. If it's the kind of research that tests one or more null hypotheses, identify it/them.

5. Identify the approach.
What are the authors going to do to answer the specific question(s)?

6. Read the methods section.
Draw a diagram for each experiment, showing exactly what the authors did. Include as much detail as you need to fully understand the work.

7. Read the results section.
Write one or more paragraphs to summarize the results for each experiment, each figure, and each table. Don't yet try to decide what the results *mean*; just write down what they *are*. You'll often find that results are summarized in the figures and tables. Pay careful attention to them! You may also need to go to supplementary online information files to find some of the results. Also pay attention to:

- The words "significant" and "non-significant." These have precise statistical meanings.
- Graphs. Do they have error bars on them? For certain types of studies, a lack of confidence intervals is a major red flag.
- The sample size. Has the study been conducted on 10 people, or 10,000 people? For some research purposes a sample size of 10 is sufficient, but for most studies larger is better.

8. Determine whether the results answer the specific question(s).
What do you think they mean? Don't move on until you have thought about this. It's OK to change your mind in light of the authors' interpretation -- in fact, you probably will if you're

still a beginner at this kind of analysis -- but it's a really good habit to start forming your own interpretations before you read those of others.

9. Read the conclusion/discussion/interpretation section.
What do the authors think the results mean? Do you agree with them? Can you come up with any alternative way of interpreting them? Do the authors identify any weaknesses in their own study? Do you see any that the authors missed? (Don't assume they're infallible!) What do they propose to do as a next step? Do you agree with that?

10. Go back to the beginning and read the abstract.
Does it match what the authors said in the paper? Does it fit with your interpretation of the paper?

11. Find out what other researchers say about the paper.
Who are the (acknowledged or self-proclaimed) experts in this particular field? Do they have criticisms of the study that you haven't thought of, or do they generally support it? Don't neglect to do this! Here's a place where I do recommend you use Google! But do it last, so you are better prepared to think critically about what other people say.
A full-length version of this article originally appeared on the author' s personal blog (www.violentmetaphors.com). She gratefully acknowledges Professors José Bonner (Indiana University) and Bill Saxton (UC Santa Cruz) for teaching her how to read scientific papers using this method.

ICT Skills Checklist

Your instructor will initial each section after the student has demonstrated competency. Once the student is competent in all areas on this checklist, the student will move on to the research portion of the course.

Identify the Following	Instructor Initials
Keyboard	
Mouse	
Cursor	
Processor	
Storage devices	
• Hard drive	
• USB/Flash drive	
• Compact Disk (CDs)	
Create a Word document	
Write a paragraph	
Save a file	
Change the font, size, color, etc.	
Change the alignment	
Create a bulleted list	
Create a hyperlink	
Insert a table	
Save a document	
Reopen the document	
Print the document	
Scan the document	
Create an excel spreadsheet	
Create a PowerPoint presentation	
• Add a slide	
• Change the layout of a slide	
• Play the slideshow	
• Save the slideshow	
• Reopen the slideshow	
Open the internet	
Create an email	
• Attach a file	
• Send an email	
Create an Excel spreadsheet	
• Enter data into cells	
• Create a formula (total a column)	
Launch Google	
Navigate website menus	

Clinical Rotation I

Credits: 4

Placement within the Curriculum:

Semester 1

Duration:

16 weeks
Lab: Weeks 1-6 (2 three-hour days per week) 36 hours
Clinical: Weeks 8-15 (2 eight-hour days per week x8w) 128 hours
Students do no attend clinical during midterms and finals

Prerequisites:

Successful completion of a CM program

Course Description:

This clinical course is intended to provide the midwife with an opportunity to practice his/her expanding scope of practice. This course will start in the lab where students will be given the opportunity to refresh their history taking and physical exam skills culminating in a skills checkout. Once the skills checkout has been satisfactorily completed, students will move into community-based settings where they will focus on providing primary care services throughout the lifespan with an emphasis on assessment, diagnosis and treatment of tropical and communicable diseases.

Course Outcomes:

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

- Perform a thorough head to toe exam in the laboratory before proceeding into the clinical setting.
- Document complete history and chief complaint.
- Assess a range of primary health care problems including tropical and communicable diseases.
- Create differential diagnoses for clients who present with signs and symptoms of primary care and/or tropical and communicable disease. Emphasis will be placed on the conditions that impact pregnancy as well as those that significantly contribute to

childhood (under 5) mortality such as malaria, pneumonia, and diarrheal diseases.

- Outline treatment plans for clients in the primary care setting.
- Identify appropriate mechanisms for consultation, collaboration and referral in the primary care setting utilizing the midwifery management process.
- Develop educational materials for prevalent tropical or communicable diseases with high morbidity and mortality rates in Liberia.

Competencies:

Knowledge	Attitudes/Values	Skills
List the components of a thorough head to toe exam.	Appreciate the importance of being systematic (as a means of being thorough).	Perform a thorough head to toe exam.
Explain the rationale for health history questions.	Use appropriate interviewing techniques to elicit data taking into consideration psychosocial, cultural and spiritual dimensions.	Document complete history and chief complaint.
List the elements that comprise objective data.		Utilize proper technique for physical assessment skills.
Explain the process of generating a differential diagnosis.	Recognize the relationship between a differential diagnosis and the plan of care.	Develop a differential diagnosis for patients in the primary care setting.
Analyze and interpret data gained from a comprehensive history and physical for clinical decision making.		Develop an evidence-based treatment plan for patients experiencing primary care and/or tropical and communicable diseases.
Identity when consultation, collaboration or referral are necessary.	Recognize this as an important aspect in the provision of quality care.	Communicate need for consultation, collaboration or referral to the appropriate team member.
	Assess own strengths and weaknesses in the implementation of midwifery care.	Complete written self-assessment at midterm and end of term.
Identify the tropical and communicable diseases that contribute significantly to morbidity and mortality in Liberia.		Develop educational materials for prevalent tropical or communicable diseases with high morbidity and mortality rates in Liberia.

Course Content:

Unit I │ Lab: Practice Head to Toe Exam in Lab on Partner

A. Integumentary Assessment
    1. Skin:
        a) Color
        b) Texture
        c) Temperature
        d) Lesions
    2. Hair:
        a) Color
        b) Texture
        c) Distribution
        d) Seborrhea
        e) Lice
    3. Nails:
        a) Shape
        b) Contour
        c) Consistency
        d) Color
        e) Capillary refill
B. HEENOT Assessment
    1. Head/Face:
        a) Shape (normocephalic)
        b) Symmetry, sensation, mastication (CN V and VII)
    2. Eyes:
        a) Position/alignment
        b) Extraocular movements/Cardinal Fields
        c) Snellen Eye Chart (CN II)
        d) PERRLA (CN II, III, IV, VI)
    3. Ears:
        a) Position/ Size/ Symmetry
        b) Lesions/ Nodules
        c) Otoscopic examination
        d) Hearing (CN VIII)
    4. Nose:
        a) Color
        b) Lesions

5. Oral/Throat:
    a) Symmetry
    b) Color
    c) Lesions
    d) Tongue (CN XII)
    e) Uvula (CN X)
    f) Gag reflex (CN VIII)
    g) Tonsils:
        (1) Exudate
        (2) Lesions
        (3) Size
    h) Neck:
        (1) Carotid artery
        (2) Lymph nodes
        (3) Shrug (CN XI)
        (4) Thyroid:
            i. Size
            ii. Position
            iii. Nodules

C. Cardiovascular Assessment
    1. Pulses:
        a) Radial
        b) Brachial
        c) Apical
        d) Femoral
        e) Pedal
    2. Peripheral Vascular:
        a) Color
        b) Temperature
        c) Edema
    3. Auscultation:
        a) Rate/Rhythm
        b) Placement:
            (1) Aortic
            (2) Pulmonic
            (3) Tricuspid
            (4) Mitral

D. Respiratory Assessment
    1. Lung Sounds:
        a) Bronchovesicular

b) Vesicular

E. Breast Exam
   1. Technique
   2. Position of the Arms
   3. Self-Breast Examination

F. Abdominal Assessment
   1. Inspection
   2. Bowel Sounds:
      a) Hypoactive
      b) Normoactive
      c) Hyperactive
   3. Palpation:
      a) Light
      b) Deep
      c) Spleen
      d) Liver
      e) Kidneys:
         (1) Costovertebral Tenderness (CVAT)
      f) Gallbladder:
         (1) Murphy's Sign
      g) Appendix:
         (1) McBurney's Point
      h) Inguinal lymph nodes

G. Female Genitalia Assessment
   1. Inspection/Palpation:
      a) Mons
      b) Labia minora
      c) Labia majora
      d) Perineum
      e) Clitoris
      f) Urethra
      g) Vaginal introitus
      h) Skene's glands
      i) Bartholin's glands
      j) Assessment of discharge
   2. Speculum Exam:
      a) Cervix:
         (1) Position
         (2) Size
         (3) Shape

(4) Consistency
(5) Cervical Motion Tenderness

b) Adnexa:
(1) Position
(2) Size
(3) Shape
(4) Tenderness
(5) Masses

c) Genital relaxation:
(1) Cystocele
(2) Rectocele
(3) Cervical/uterine prolapse

d) Kegel exercises

3. Rectal Exam:
a) Tone
b) Tenderness
c) Nodules
d) Occult blood
e) To assess cervix, ovaries if unable to perform vaginal exam

H. Musculoskeletal
1. Range of Motion (ROM)
2. Muscle Strength:
a) Upper extremity
(1) Hang grasp
(2) Pushes/Pulls against resistance

b) Lower extremity
(1) Pushes/Pulls against resistance

I. Neurological
1. Cranial Nerves
2. Reflexes:
a) Deep tendon
3. Clonus
4. Gait and Posture
5. Romberg Test
6. Walking Heel to Toe
7. Walking on Toes
8. Hopping in Place

Unit II │Special Populations

A. Newborn Assessment
B. Pediatric Assessment
C. Geriatric Assessment
D. Pregnancy Assessment
E. Postpartum Assessment

Unit III │Skills Checkout

A. Complete History
B. Physical Exam Checkout

Unit IV │Clinical ****While it is impossible to predict what clinical scenarios will arise each day, students are expected to actively seek out opportunities for the following:*

A. History Taking
B. Physical Exam
C. Primary Care Concerns
D. Leading Causes Morbidity and Mortality for Pediatric Patients under Age Five
E. Tropical and Infectious Diseases
F. Differential Diagnosis
G. Documentation
H. SOAP Notes

Teaching/Learning Strategies:

- Demonstration-return demonstration
- Lab practice (with partner)
- On-site clinical practice

Course Expectations:

- Regular attendance
- Come to class prepared
- Participate actively skills laboratory and clinical sessions
- Complete all assignments by the assigned due dates

Required Resources:

- Skills checklist
- Skills lab
- Anatomical models/manikins
- Appropriate attire

Assessment Criteria – Standard Grading System:

- Head to toe skills check out 15%
- Attendance 5%
- Submit complete documentation (SOAP note format) for eight (8) clients 40%
- Implementation of a health promotion activity for the community 40%
- Midterm evaluation by preceptor (Satisfactory/Unsatisfactory)
- Final evaluation by preceptor (Satisfactory/Unsatisfactory)

References:

Bickley, L., Szilagyi, P. & Hoffman, R. (2017). *Bates Guide to Physical Exam and History Taking 12th ed.* Philadelphia, PA: Wolters Kluwer.

King, T., Brucker, M., Jevitt, C. & Osborne, K. (2019). *Varney's Midwifery, 6th ed.* Burlington, MA: Jones and Bartlett.

All textbooks assigned this term may be used in this course

Physical Examination Checklist

COURSE: Clinical Rotation I Health Assessment of Women

NAME: _____ Date:_____

Satisfactory performance in all areas is required during checkout. If a physical exam tool is unavailable, students should be able to verbalize proper technique.

Please note that italicized information are suggested findings that may be verbalized by student midwife during the checkout exam. They are only suggested and other findings may be verbalized "Normal" will not be accepted as a finding—appropriate descriptive findings are mandatory.

Introduction:	**S**	**U**	**Comments**
Washes/Uses hand sanitizer on hands in front of client			
Introduces self by name and title			
Identifies patient using name and DOB			
Explains to the patient the exam to be performed			

General Survey:

Notes body structure (stature/nutritional status/posture) eg. *height normal for age? Obese? Sitting comfortably?*			
Notes behavior (facial expression/mood and affect/speech/dress) eg. *maintains culturally appropriate eye contact/expressions appropriate to situation/pleasant interaction/clear speech/clothing appropriate?*			
Asks questions to determine orientation - person/place/time/situation- *Alert and Oriented (AOx4)*			
Inspects general skin color (*even-toned/ consistent with genetic background/pallor jaundice/cyanosis?*			
Inspects skin throughout exam and notes any lesions/scars/pigmentation and if skin is *clean/dry/intact*			

HEENOT:

Inspect head *(normocephalic/contour)*			
Inspect and palpate hair *(color/texture/distribution/seborrhea/lice)*			
Inspect face for symmetry, sensation, mastication			

(Cranial nerves V and VII (raise eyebrows/frown/smile, soft touch to forehead/ cheeks/ jawline, bite down/palpate masseter and temporalis muscles)			
Palpate face for Temporal artery, temporomandibular joint/Maxillary sinuses			
Inspect position and alignment of eyes			
Inspect Extraocular movements of eyes in six cardinal field (*coordinated/ Smooth/Nystagmus?)*			
Inspect **p**upils, stating if they are **e**qual, **r**ound and **r**eactive to **l**ight (brisk or sluggish) and **a**ccommodation (PERRLA) (Cranial nerves II, III, IV and VI)			
Inspect eyelids/eyelashes			
Inspect lacrimal apparatus/conjunctiva/sclera			
Snellen Eye Chart (CN II) Pupillary reflexes Light: pupil constricts in response to bright light Direct (the eye being tested) Indirect (the response of the eye not being tested) Accommodation: response to looking at a near then far away object Convergence: Follow finger to cross eyed Assess the fundus, optic nerve, blood vessels, red reflex			
Inspect /palpate external ear *(position/size/symmetry/ulcerations/nodules?)*			
Palpate tragus for tenderness			
Otoscopic exam: Canal Tympanic membrane			
Test hearing (CN VIII) Voice test			
Inspect nose (external lesions/color)			
Observe movement of the mouth/lips (*symmetrical?*) Inspect lips for symmetry/color/lesions			
Note odor of breath/intact dentition?			
Inspect the buccal mucosa and gums for color,			

ulcerations, trauma, lesions			
Inspect tongue (assess movement CN XII)			
Ask patient to say “Ah” and note rise of Uvula (CN X) and (VIIII gag reflex)			
Inspect tonsils *(intact/exudate/position?)*			

Neck

Inspect/palpate neck, palpate carotid artery			
Palpate lymph nodes in sequence: preauricular, posterior auricular, occipital, tonsillar, submaxillary, submental, superficial cervical, deep cervical chain, supraclavicular			
Test cranial nerve XI (Shoulder shrug/SCM turn head against resistance)			
Palpate thyroid			

Patient Seated and Facing Away from Examiner with Back Exposed…

Inspect skin posterior chest/inspect shape of thoracic cage			
Palpate Spine			
Assesses ease of breathing (regularity of respirations/breathing pattern)			
Auscultate posterior lung sounds (C7-T10)/ verbalize where bronchovesicular/vesicular sounds are heard/assess Right Middle Lobe			
Palpate costovertebral angle (CVA)			

Patient Seated and Facing Towards Examiner

Inspect skin of anterior chest			
Auscultate anterior lung sounds/verbalize where bronchovesicular/vesicular sounds are heard			
Locate the apical pulse			
Auscultates the aortic, pulmonic, tricuspid and mitral areas			
Identify normal heart sounds and regular rhythm			

Breast and Axilla

Inspect breast, nipple, areola and axilla			
Palpate breast, areola, nipple, and axilla			
Position arms appropriately (4 positions- Arms by sides, overhead, on hips, leaning forward)			
Teach breast self-exam			

Abdomen

Inspect the abdomen (*contour/symmetry/color/lesions?)*			
Auscultate the abdomen in all 4 quadrants (*normoactive (hypo vs hyperactive bowel sounds?)*			
Lightly palpate the abdomen			
Palpate the superficial inguinal lymph nodes			
Palpate femoral arteries			
Deeply palpate the abdomen for the liver			
the spleen			
the aorta			
Demonstrate maneuvers to detect diastasis recti			
Demonstrate maneuvers to detect rebound tenderness (Murphy's sign; McBurney's Point)			
Does the student perform the abdominal exam in the correct order (inspect, auscultate, light palpation, deep palpation?)			

Extremities

Inspects fingernails (shape/contour/consistency/color)			
Palpates fingers for capillary refill/edema			
Palpates upper extremities bilaterally for temperature/moisture			
Assess radial and brachial pulses			
Tests upper extremities strength bilaterally and grades strength (hand grasp/pushes against resistance/pulls against resistance)			
Inspect ROM for elbow/shoulder/hand/wrist			
Inspect the legs (lesions/vascular changes)			
Palpate legs bilaterally (temperature/edema/moisture)			
Palpate pedal pulses/assess for edema/capillary refill			
Palpate the calf for signs of deep phlebitis			
Check patellar deep tendon reflex (DTR)			
Demonstrate maneuver to test for clonus			
Perform screening neuro exam including:			
Gait and posture			
Romberg test			
Walking heel to toe			
Hopping in place			
Walking on toes, then on heels			

Preparation for the Pelvic Exam

Make sure equipment is assembled and in working order			
Wash hands before starting procedure			
Use clean/sterile technique as indicated			

External Genitalia: **Perform Procedures Accurately and with Minimal Discomfort to Client**

Inspect external genitalia (mons, labia, perineum) accurately and with minimal discomfort to the client			
Inspect perineum and anus			
Inspect labial minora, clitoris, urethral meatus, vaginal introitus			
Palpate Skene's glands			
Palpate Bartholin's glands			

Perform a Speculum Examination Safely and with Minimal Discomfort

Adjust speculum as needed			
Choose the appropriate speculum (run fingers along it to check for sharp edges)			
Lubricate the speculum properly			
Insert the speculum correctly			
Open the speculum to expose the cervix			
Inspect the cervix with a good light source			
Perform pap, cultures, if indicated			
Withdraw speculum from the cervix and inspect vaginal walls looking for bulging vaginal walls			
Close speculum blades before withdrawing from vagina			
Check speculum for character and odor of discharge			

Perform Bimanual Examination Safely and with Minimal Discomfort to the Client

Palpate cervix for location, position, size and shape, consistency. Determine accurately the presence or absence of tenderness.			
Palpate uterus for location, position, size and shape, consistently. Determine accurately the presence or absence of tenderness.			
Palpate adnexa for position, size and shape, consistency. Determine accurately the presence or absence of tenderness.			
Demonstrate the ability to recognize the presence or absence of genital relaxation including cystocele, rectocele, cervical prolapse			

Demonstrate ability to teach Kegel exercises			

Perform (or Describe) Rectal Exam on Indication

Inserting a lubricated finger over the anal sphincter, note tone, tenderness, irregularities or nodules			
Perform testing for occult blood, if indicated			

Perform (or Describe) Rectovaginal Exam, if Indicated; Accurately, Safely and with Minimal Discomfort to the Client.

Inserting a lubricated index finger into the vagina and second finger past the rectal sphincter, palpate the rectovaginal septum for nodularity or irregularity			
Palpate the cervix and uterus, if indicated			

Examiner: _____ Date: _____

☐ Satisfactory exam demo ☐ Unsatisfactory exam demo

Comments:

Newborn Checklist

Student Name: _____
Date: _____

Newborn	S	U	Comments:
Vital Signs/Wt/Length			
General Assessment			
Skin			
CV			
Pulmonary			
Head Circumference			
Head Inspection			
HEENOT/ Clavicle			
Abdomen— Inspection, Auscultation, Palpation, Circumference			Kidneys____ Liver ____ Spleen ____
Hips-Ortalani's			
Genitals/Anus			
Back			
Extremities-ROM			
Gestational Age			Vernix___ Foot wrinkles____ Ear Cartilage____ Nails____ Flexion____
Reflexes			PERRLA____ Moro____ Babinski____ Grasp____
Apgars			

Obstetrical Abdominal Examination	S	U	Comments
Skin Inspection			
• Scars			
• Bruising			
• Abrasions			
• Linea negra			
• Striae Gravidarum			
Palpation			
• Diastasis recti			
• Umbilical hernia			
• Uterine tone, tenderness, size			
Fundal height			
• Locate pubic symphysis			
• Locate fundus			

• Proper technique with measuring tape			
Leopold's Maneuver			
• What is in the fundus? (lie/presentation)			
• Which side is the back on?			
• What is the presenting part (presentation/engagement)			
• What is the attitude?			
Estimated Fetal Weight (EFW)			
Fetal Heart Tones			
Cervical Exam (dilation)			
Bishop Score			
• Position			
• Consistency			
• Effacement			
• Dilation			
• Station			
Clinical Pelvimetry			
• Pubic arch			
• Sidewalls			
• Ischial spines			
• Coccyx shape/mobility			
• Diagonal conjugate			
• Intertuberous diameter			

Postpartum Assessment	**S**	**U**	**Comments**
Fundus			
• height, tone			
• Episiotomy/laceration/incision			
Lochia			
• Color, quantity, odor			
Breast			
• Signs of engorgement vs mastitis			

Complete History Template

Identifying data: (age, gender, occupation, marital status, source of information)

Reliability: (how is the patient's memory or mental status?)

Chief complaint: Symptoms or concerns stated by the patient/reason they came to you for care). Use the patient's own words.

Present illness: How each symptom developed, builds on the chief complaint.
OLD CARTS (Onset, Location, Duration, Character, Aggravating/alleviating factors, Radiation, Timing, Severity) Include patient's thoughts and feelings on their illness.

Medications: (Name, dose, route, frequency)
Allergies: (drugs, food, insects, environment and reaction)
Substance use: (substance and quantity/frequency)

Past history: (childhood illnesses, adult illnesses with date, medical, surgical, OB/gyn, psych, health maintenance- immunizations, past screening tests, lifestyle issues, home safety)

Family history: Pedigree (age, illness, cause of death, age of death or onset of illness if living. Highlight diabetes, hypertension, cancers)

Social history: educational level, interests, lifestyle, home situation, life stressors

Review of systems: the presence or absence of common symptoms in each major body system. Patient should be able to answer "yes" or "no" to the question.

- **General:** weight, recent weight changes, weakness, fatigue, fever
- **Skin:** Rashes, lumps, sores, itching, dryness, changes in color, changes to hair or nails, changes to size or color of moles.

HEENT:
Head: Headache, head injury, dizziness, lightheadedness.

Eyes: Vision, glasses/contacts, last exam, pain, redness, excessive tearing, double or blurred vision, spots, specks, flashing lights, glaucoma, cataracts.

Ears: Hearing, tinnitus, vertigo, earaches, infection, discharge. If decreased, use of hearing aid. Nose/Sinuses: Frequent colds, nasal stuffiness, discharge, itching, hay fever,

nosebleeds, sinus trouble.

Throat: Conditions of teeth/gums, bleeding, dentures, fit, last dental exam, sore tongue, dry mouth, sore throats, hoarseness.

Neck: Swollen glands, goiter, lumps, pain, stiffness

Breasts: Lumps, pain, discomfort, nipple discharge, self-exam practices.

Respiratory: Cough, sputum (color, quantity, presence of blood), shortness of breath, wheezing, pain, last chest X-ray. History of asthma, bronchitis, emphysema, pneumonia, tuberculosis.

Cardiovascular: “Heart trouble”; high blood pressure, rheumatic fever, heart murmurs, chest pain, palpitations, shortness of breath, need to use pillows or sit up at night to ease breathing, swelling in hands, ankles, feet, results of any past tests.

Gastrointestinal: Trouble swallowing, heartburn, appetite, nausea. Bowel movements (stool color, size, changes, pain, bleeding, tarry), hemorrhoids, constipation, diarrhea, abdominal pain, food intolerances, excessive gas, jaundice, liver or gallbladder trouble, hepatitis.

Peripheral vascular: intermittent leg pain, leg cramps, varicose veins, history of clots, swelling, color changes during cold weather, swelling, redness, tenderness.

Urinary: Frequency, polyuria, nocturia, urgency, burning, pain during urination, blood in urine, urinary tract infections, kidney or flank pain, history of stones, suprapubic pain, incontinence, hesitancy.

Genital: (Female): Age at menarche, regularity, frequency, duration of periods, amount of bleeding, bleeding between periods or after intercourse, last period, dysmenorrhea, premenstrual symptoms, age at menopause, menopausal symptoms, postmenopausal bleeding, If DOB before 1971-exposure to diethylstilbestrol (DES) from mothers use during pregnancy, vaginal discharge, itching, sores, lumps, STIs, Gravida/Parity (G/P-Term, Preterm, Abortions, Living), type of deliveries, complications, use of birth control methods, sexual preferences, interest, function, satisfaction, problems, pain, concerns about HIV.

Musculoskeletal: Pain, stiffness, arthritis, gout, backache (location if present), limited range of motion, limitations on activity, timing of symptoms (morning or evening), duration, history of trauma/injury. Accompanying symptoms such as fever, chills, rash, anorexia,

weight loss or weakness).

Psychiatric: Nervousness, tension, mood, depression, memory changes, suicidal ideations/plans/attempts, past counseling/admissions.

Neurological: Changes in mood, attention, speech, orientation, memory, insights, judgements. Headache, dizziness, vertigo, fainting, blackouts, weakness, paralysis, numbness, tingling, tremors, involuntary movements, seizures.

Hematologic: Anemia, easy bruising/bleeding, past transfusions (reactions).

Endocrine: Thyroid trouble, heat/cold intolerance, excessive sweating, thirst, hunger. Polyuria, changes in glove or shoe size.

The Midwifery Management Process, Varney's Midwifery

Steps:

1. Investigate by obtaining all necessary data for complete evaluation of the woman or newborn.
2. Make an accurate identification of problems or diagnoses and healthcare needs based on correct interpretation of data.
3. Anticipate other potential problems or diagnoses that might be expected because of the identified problems or diagnoses.
4. Evaluate the need for immediate midwife of physician intervention and/or for consultation or collaborative management with other healthcare team members, as dictated by the condition of the woman or newborn.
5. Develop a comprehensive plan of care that is supported by explanations of valid rationale underlying the decisions made and is based on preceding steps.
6. Assume responsibility for the efficient and safe implementation of the plan of care.
7. Evaluate the effectiveness of the care given, recycling appropriately thought the management process for any aspect of care that has been ineffective.
(King, T., Brucker, M., Jevitt, C. & Osborne, K., 2019)

Let's simplify this a bit.
1. Collection of subjective and objective data including laboratory and imaging that has been done or that will be done.

Ex. A woman presents with severe pelvic pain. She has cervical motion tenderness (+CMT) on bimanual examination and abundant, foul smelling vaginal discharge. The midwife collects vaginal cultures for gonorrhea and chlamydia.

2. Create a differential diagnosis and use all available evidence from step one to assure accuracy.

Ex. By her presentation you think of all of the causes of pelvic pain (II. Weeks 3-4 of syllabus). After an examination is performed, the midwife rules out many of them because her pregnancy test is negative and there were no masses palpable on examination. In addition +CMT and discharge were noted.

3. This one is pretty straightforward so let's take the example here as well.

Ex. The midwife diagnoses a woman with pelvic inflammatory disease (PID). Her partner will need to be treated as well or she is likely to get reinfected. Furthermore, severe and/or

untreated PID can cause tubal scarring increasing chances of ectopic pregnancy should pregnancy occur.

4. Consider the severity of her condition?

Ex. Does she require immediate emergency care, is she febrile, appear septic? Or is she stable and can be treated outpatient?

5. A plan of care must be evidence based. It is more than pharmacological treatment and nearly always involves education and emotional support. Occasionally, the plan will involve further testing or a follow up visit.

Ex.
1) She is given antibiotics (ex. Ceftriaxone 250 mg IM x 1 dose, doxycycline 100mg PO BID x14d and Metronidazole 500 mg PO BID x 14d.)
2) Reassess pt tomorrow and bring partner for treatment.
3) Counseling on STI prevention provided
4) Screened for intimate partner violence, resources provided.

6. Self-explanatory. Midwives are independently licensed practitioners in Liberia and are responsible for the care of clients. It is the midwife's professional responsibility to know when to care for a client independently vs when to consult, collaborate or refer.

Ex. In this case, independent management was reasonable and the midwife has arranged for very close follow up and strict instructions should her condition worsen overnight.

7. Continuously evaluate the care you have provided.

Ex. Setting up a follow up for this client for the next day provides an opportunity to reevaluate your care.

SOAP Note Template

Subjective: What the patient tells you, symptoms, chief complaint, review of systems.
Objective: Physical exam findings (include diagrams that were drawn to explain location and size of lesions) laboratory or diagnostic test results.
Assessment: This is your analysis or interpretation of results.
Plan: Patient education, changes in medications, needed tests, referrals or return visits. Include the patient's response to the plan.

****Additional components required for SOAP notes that are written and submitted for a grade in a clinical course****

Following your standard SOAP note please include a reflection that includes the following:
1. Personal thoughts and feelings about this particular clinical encounter.
2. What did you do well?
3. What will you improve upon?
4. How will this encounter shape your future encounters?
5. What did you offer this client to improve her experience?
6. How did you show compassion in this encounter?

****To accurately complete numbers 5 and 6, you will need to familiarize yourself with the ICM position statement entitled Partnership Between Women and Midwives https://www.internationalmidwives.org/assets/files/statement-files/2018/04/eng-partnership-between-women-and-midwives1.pdf to show how your practice reflects this value.****

Sample SOAP Note for Primary Care Client (Bates, 12th ed.)

9/25/16
S: Mrs. N. returns for follow-up of her migraine headaches. She has had fewer headaches since reducing her intake of caffeine. She is now drinking decaffeinated coffee and has stopped drinking tea. She has joined a support group and started exercising to reduce stress. She is still having one to two headaches a month with some nausea, but they are less severe and generally relieved with NSAIDs. She denies any fever, stiff neck, associated visual changes, motor-sensory deficits, or paresthesias.

She has been checking her blood pressure at home. It is running about 150/90. She is walking 30 minutes three times a week in her neighborhood and has reduced her daily caloric intake. She has been unable to stop smoking. She has been doing the Kegel exercises, but still has some leakage with coughing or laughing.

Medications: Motrin 400 mg up to three times daily as needed for headache.
Allergies: Ampicillin causes rash.
Tobacco: 1 pack per day since age 18 years.

O: Pleasant, overweight, middle-aged woman, who is animated and somewhat tense. Ht 157 cm (5′ 2″). Wt 63 kg (140 lbs). BMI 26. BP 150/90. HR 86 and regular. RR 16. Afebrile.
Skin: No suspicious nevi.
HEENT: Normocephalic, atraumatic. Pharynx without exudates.
Neck: Supple, without thyromegaly.
Lymph nodes: No lymphadenopathy.
Lungs: Resonant and clear.
***CV*:** JVP 6 cm above the right atrium; carotid upstrokes brisk, no bruits. Good S_1, S_2. No murmurs heard today. No S_3, S_4.
Abdomen: Active bowel sounds. Soft, nontender, no hepatosplenomegaly.
Extremities: Without edema.
Labs: Basic metabolic panel and urinalysis from 8/25/16 unremarkable. Pap smear normal.
A/P:

1. Migraine headaches—now down to one to two per month due to reductions in caffeinated beverages and stress. Headaches are responding to NSAIDs.
   -Will defer daily prophylactic medication for now because patient is having fewer than three headaches per month and feels better.
   -Affirm need to stop smoking and to continue exercise program.
   -Affirm patient's participation in support group to reduce stress.
2. Elevated blood pressure—BP remains elevated at 150/90.
   -Will initiate therapy with a diuretic.
   -Patient to take blood pressure three times a week at home and bring recordings to next office visit.
3. Cystocele with occasional stress incontinence—stress incontinence improved with Kegel exercises but still with some urine leakage. Urinalysis from last visit—no infection.
   -Initiate vaginal estrogen cream.
   -Continue Kegel exercises.
4. Overweight—has lost ~4 lbs.
   -Continue exercise.
   -Review diet history; affirm weight reduction.
5. Family stress—patient handling this better. See Plans above.
6. Occasional low back pain—no complaints today.
7. Tobacco abuse—see Plans above. Will start medication.

8. Health maintenance—Pap smear sent last visit. Mammogram scheduled. Colonoscopy recommended.

Additional Considerations for Pregnant Clients

S: Fetal movement, contractions, symptoms of preterm labor (frequent tightening, pressure, menstrual like cramping), vaginal bleeding, discharge, loss of fluid. Symptoms of preeclampsia (headache, visual changes, heartburn, nausea/vomiting). Adequate fluid and caloric intake? Taking vitamins, iron as advised?
O: Document the following as appropriate based on gestational age:
Uterine size: noted on bimanual exam up to 12w
Fundal height: noted at pubic symphysis or umbilicus by number of finger breaths above or below, OR in centimeters after 20 weeks by using measuring tape
Fetal position as noted on Leopold's maneuver
Fetal size: EFW
Fetal heart rate: Location, rate and rhythm
Uterine tone: soft vs rigid
If vaginal exam is done: dilation, effacement, station and presenting part. May write LCP which stands for long closed and posterior if exam findings are negative. If there is any cervical ripening, dilation or effacing noted, document like this (1, 50%, -2, vtx) which means 1cm dilated, 50% effaced, -2 station, vertex presentation.
Deep tendon reflexes (0 to +4), edema (0-4, pitting?), pulses (equal), calf circumference (difference >3cms is concerning for DVT).

Sample SOAP note for return OB visit

S: 25 yo, G3 P 1011 at 34w. Feels well, no complaints. Occasional Braxton Hicks Contractions (*Occ BH).* Denies vaginal bleeding or leakage of fluid *(VB or LOF)*. Report positive fetal movement *(+FM)*. Denies headache *(HA)*, visual changes, heartburn, right upper quadrant *(RUQ)* pain, swelling of hands or face. Nervous about labor but looking forward to birth of baby.
O: BP 120/70
Fundal height 33cms
Fetus VTX by Leopold's Maneuver, VTX presentation, floating head.
FH: auscultated in left lower quadrant *(LLQ)* Rate: 130-135, regular rhythm, no decelerations noted.
+1 edema, no pitting.
A: Pregnancy progressing well, Size equals dates *(S=D)*
P: Reviewed normal changes in the third trimester, signs and symptoms of preterm labor and preeclampsia and when to come to hospital. Cont monitoring for fetal movement. Rev when to come to hospital. Return to clinic in 2w.

Midwifery IV: Gynecology

Credits: 4

Duration:

16 weeks (14 instructional and 2 exam sessions)
56 instructional hours

Placement within the Curriculum:

Semester 2

Prerequisites:

Tropical and Communicable Diseases, Anatomy and Physiology II, ICT/Research, and Clinical Rotation I

Course Description:

This course will exposed the learner to the knowledge, skills, and attitudes of gynecological issues in women's reproductive health, including topics, such as basic principles of gynecologic care focusing on menstruation, conception, and infertility in cultural perspectives; reproductive tract infections and their consequences; cervical cancer; female genital mutilation/cutting (FGM/C); the differential diagnosis of the pelvic mass; fistula; women and malnutrition; urinary incontinence and pelvic organ prolapse; menopause and the status of women; and clinical management of sexual and gender-based violence (SGBV).

Course Outcomes:

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

- Describe clinical gynecology and common problems
- Discuss the social, economic, cultural, and biological implications of gynecologic problems, with special emphasis on the link between gender norms and female gynecologic problems
- Describe the physiology and pathophysiology of the menstrual cycle, the role of culture related to menstrual complaints, and the implications of this interaction for women in Liberia
- Describe the nature and impact of reproductive tract infections on women's health
- Describe the pathophysiology of infertility and its impact on women's lives in Liberia

- Discuss the problem of cervical cancer in West Africa and Liberia
- Discuss the implications of mass lesions of the pelvis for women's health in Liberia
- Describe the practice of FGM/C in its local social context, and explore the implications these practices have for women's health
- Define the intertwined problems of pelvic organ prolapse and urinary incontinence in the setting of Liberia
- Identify major reproductive health issues due to age (adolescent and aged health problems)
- Recognize the clinical manifestations of selected gynecological diseases and disorders
- Describe current options for diagnosis and treatment of system-specific manifestations of selected systemic disorders, management and therapy including the efficacy, doses, and
- Interactions of individual drugs in gynecology, and women's health
- Describe the impact of nutritional issues on women's health in Liberia
- Discuss the education of patients regarding screening and prevention of gynecological problems
- Define and identify different forms of SGBV
- Discuss the epidemiology of major forms of violence against women globally and regionally
- Appraise and explain relevant national SGBV policies
- Understand and describe the role of health providers in responding to SGBV
- Describe the rights of SGBV survivors when accessing health care
- Provide culturally competent assessment and care to survivors of SGBV
- Understand and summarize dynamics and barriers that survivors face in experiencing and seeking help for violence
- Explain primary, acute, chronic, physical, and behavioral consequences of SGBV
- Describe WHO's Clinical and Policy Guidelines and Clinical Handbook
- Describe the role of health care providers in responding to SGBV, including classification of what is and what is NOT the provider's responsibility
- Articulate and apply guiding principles for providing women-centered care
- Define steps and processes in provider-survivor communication on intimate partner violence and sexual assault
- Assess patients via interview, questionnaire, history taking, and physical examination processes
- Use reliable, valid, and normed instruments developed for the assessment of SGBV and its symptoms

- Identify and perform key steps in providing acute medical care to SGBV survivors, including informed consent, history taking, physical and psychological examination, risk assessment, emergency contraception, and prophylaxis for HIV and STIs, documentation, referrals and follow-up care
- Promote safety planning and support seeking with survivors

Knowledge	Attitude/Value	Skill
Describe challenges in practicing clinical gynecology in Liberia	Demonstrate appreciation for this specialty in Liberia	Relates the role of clinical gynecology to other specialties delivering health care services in Liberia
Applies appropriate assessment techniques for women with menstrual complaints	Assists women complaining of menstrual abnormalities in identifying causes, especially those related to cultural practices	Initiate plan of care for management of women with menstrual disorders
Provides counseling for women who desire contraception	Aids the woman in making informed decisions about options for contraception considering the cultural implications	Explains to the woman the risks and benefits of selected option for contraception
Identifies reproductive tract infections through comprehensive assessment techniques for women and spouses	Listens to the complaints of the woman and spouse to inform a comprehensive assessment process and to facilitate the establishment of the therapeutic relationship	Designs a plan of care for the woman and her spouse diagnosed with reproductive tract infections
Translates diagnostic results indicating infertility for the woman with special consideration for cultural perceptions related to the condition	Answers questions from the woman and spouse/family regarding infertility and management options	Initiate plan based on conclusions formed in discussion with woman and spouse/family
Applies appropriate assessment techniques when screening for cancers and mass lesions of the pelvis in women	Follows standards of assessment when screening the woman for cancers and pelvic lesions	Explains to the woman and spouse/family the importance of screening for cancers and pelvic lesions
Uses principles of effective counseling as an intervention for a woman with complaints of violence against her	Helps the woman identify non-medical interventions for her situation	Initiates care and management of the woman who has suffered violence including referral

Course Content:

Unit I │ Overview of Gynecology

A. Description
B. Application of Reproductive Anatomy and Physiology as It Relates to Gynecology
    1. Reproductive Anatomy
    2. The Reproductive Cycle
    3. Breasts
    4. Hormones
    5. Cardiovascular System
    6. Musculoskeletal System
    7. Urinary System

Unit II │ Midwifery Care Of The Well Woman

A. Breast Health
B. Cervical Cancer Screening
    1. Visual inspection with acetic acid
    2. Pap test
    3. Colposcopy
C. Exercise
D. Nutrition
E. Sexuality
F. Customs and Traditions Affecting the Health of Women and Girls
    1. FGM/C
    2. Religious beliefs
    3. Cultural practices
    4. Tribes and taboos
    5. Ethnicity in Liberia

Unit III│ Midwifery Care to Women with Selected Gynecological Problems

A. Common Sexual and Reproductive Health Problems and Conditions
    1. Sexually Transmitted Infections
    2. Abortions
    3. Menstrual Disorders

4. Pelvic Inflammatory Diseases
5. Breast, Uterine, and Cervical Cancer
6. Abnormal Genital Bleeding
7. Genital Ulcers
8. Urinary Tract Infections
9. Urinary Incontinence
10. Vaginitis
11. Etiology of Sexual and Reproductive Health Conditions
12. Assessment of Clients with Sexual and Reproductive Health Problems
13. Pathophysiological Processes and Management of STI Problems and Conditions
14. Diagnostic Tests for Sexual and Reproductive Health Conditions
15. Pharmacologic Agents Used in the Treatment of Sexual and Reproductive Health Problems and Conditions
16. Identification and Treatment or Referral
17. Prevention and Management of Infertility and Sexual Dysfunction in Both Men and Women
18. The Problem of Infertility:
    a) Define Infertility in Women and Men
    b) The Causes, Pathophysiology, and Management
19. Sexual Dysfunction**:**
    a) Description
    b) Causes
    c) Management
20. Prevention and Management of Complications of Abortion
    a) Postabortion Care
    b) Immediate Postabortion Care
21. Manual Vacuum Aspirator (MVA)
22. Antibiotic Therapy
23. Family Planning Counseling And Services
24. Safe Abortion

Unit IV │ Climacteric/Menopause

A. The end of the reproductive period

Unit V │ Conditions Affecting the Pelvic Musculature and Vaginal Wall

A. Rectocele
B. Cystocele
C. Uterine prolapsed
D. Fistula
E. Masses and lesions

Unit VI │ Conditions Affecting the Cervix and Uterus

A. Cervicitis
B. Endometritis
C. Uterine Displacement
D. Tumors
    1. Types:
    2. Malignancies:
        a) Endometrial
        b) Cervical carcinoma
    3. Benign Tumors**:**
        a) Uterine fibromas

Unit VII │ Conditions Affecting the Ovaries and Fallopian Tubes

A. Salpingitis
B. Ectopic pregnancy (EP)
C. Cysts and tumors

Unit VIII │ Congenital Abnormalities

A. Imperforate Hymen
B. Cysts
C. Tumors

Unit IX │ Conditions Affecting The Breasts

A. Infections
B. Mastitis

C. Lumps
D. Tumors
E. Early Detection and Prevention of Cancer
F. Clear or Bloody Discharge from Nipples

Unit X │ Other Problems Affecting Women's Health Dysmenorrhea

A. Menorrhagia
B. Metrorrhagia
C. Amenorrhea

Unit XI │ Sexual Gender-Based Violence

A. Definition of SGBV
B. Definition of Intimate Partner Violence
C. Types of SGBV
    1. Physical
    2. Emotional/Psychological
    3. Sexual
    4. Economic
    5. Anal
    6. Vaginal
    7. Oral
D. Consequences of SGBV on Reproductive Health
    1. Post-Traumatic Stress Disorder (PTSD)
    2. Miscarriage
    3. Unwanted pregnancy
    4. Unsafe abortion
    5. STIs, including HIV/AIDS
    6. Menstruation disorders
    7. Pregnancy complication
    8. Gynecological disorders
    9. Sexual disorders
E. Screening for Intimate Partner and Sexual Violence, and Clinical Management of Survivors of Intimate Partner and Sexual Violence
    1. Clinical Management of Intimate Partner Violence (IPV) and Sexual Violence:
        a) Identify/screen
        b) Support (listen, inquire, validate, enhance safety, and support)

c) Treat
d) Document
e) Refer
f) Follow-up

Course Expectations:

- Regular classroom and laboratory session attendance
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and skills laboratory sessions
- Complete all assignments and examination on due dates

Required Resources:

- Handouts/reading materials
- Skills lab

Assessment Criteria – Standard Grading System:

- Quizzes 15%
- Assignments 15%
- Attendance 5%
- Midterm Exam 25%
- Final Exam 40%

References:

Draft Sexual and Reproductive Health Competencies, WHO, 2009.

Fraser DM, Cooper MA, Myles M. 2009. *Myles Textbook for Midwives.* 15th ed. Edinburgh: Churchill Livingstone.

King, T., Brucker, M., Jevitt, C. & Osborne, K. (2019). *Varney's Midwifery, 6th ed.* Burlington, MA: Jones and Bartlett.

Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs and World Health Organization. (2011). *Family Planning: A Global Handbook for Providers.*

Emergency Preparedness and Disaster Response

Credits: 3

Duration:

16 weeks (14 instructional and 2 exam sessions)
56 instructional hours (28 classroom, 28 lab hours)

Placement within the Curriculum:

Semester 2

Prerequisites:

Tropical and Communicable Diseases, Anatomy and Physiology II, ICT/Research, and Clinical Rotation I

Course Description:

This course is designed to prepare the learner to work in collaboration with others in handling natural and manmade disasters, large-scale incidents or attacks and any other type of mass casualty event, this course will also prepare learners to act as leaders during times of disaster, focusing on midwifery care/reproductive health in educating and preparing others for potential emergencies, to develop disaster management practices and procedures within health care facilities.

Course Outcomes:

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

- Describe effective disaster management, its scope, and the nature of disaster and emergency
- Apply basic principles in meeting the roles and responsibilities of the midwife as part of the disaster management teams and stakeholders
- Plan for and manage patients during an emergency/disaster
- Discuss the concept of emergency preparedness and its application to community health and safety

- Identify and apply preventive measures to reduce the negative impact of disasters
- Describe strategies for working with the community and its members to reduce health and safety risks of disasters by establishing a community emergency preparedness team
- Develop a community emergency preparedness plan
- Identify potential accident situations and suggest/implement appropriate safety measures
- Develop educational materials and presentations that describe the health and safety risks associated with potential accidents within the community and the ways in which these risks can be reduced, especially road traffic accidents
- Explain the midwife's role during a disaster
- Demonstrate the ability to manage emergency conditions
- Describe disaster management for specified emergency situations
- Explain the concept of triage
- Use Quick Check to recognize emergency, priority, and queue patients
- Introduction to Quick Check emergency signs

Competencies:

Knowledge	Attitude/Value	Skill
Comprehends the importance of emergency preparedness to community health and safety	Assists in the development of national emergency plans to respond to disasters in communities and/or health facilities	Volunteers assistance when implementing a national/facility disaster plan in an emergency situation
Applies preventive measures to reduce the negative impact of disasters/emergencies on communities/ health facilities	Acts in accordance with national prevention strategies to reduce the impact of disasters on communities/health facilities	Responds to emergencies and disasters using national/facility's guidelines
Supports collaboration within a multi-sectorial response team during the event of a public health emergency or disaster	Joins in collaborative efforts of a multi-sectorial response team during a national/facility emergency	Follows team strategies when working in a multi-sectorial response team during a national emergency
Demonstrate ability to work with	Helps communities develop	Volunteers time and

communities in the development of disaster preparedness/response plans	plans to respond to emergencies/disasters of public health significance	resources to ensure that communities have developed plans for disaster management

Course Content:

Unit I │ Emergency Preparedness

A. Concepts and Frameworks of Disaster Management
B. Patient Assessment
C. Patient Triage
    1. Emergency Room Staff Management
    2. Community Triage
D. Environmental Disasters/Accidents
    1. Landslides
    2. Earthquakes
    3. Plane Crashes
    4. Fire Outbreaks
    5. Poisoning
    6. Epidemics
E. Disaster Management
    1. Ambulance Service
    2. Fire Service
F. Constituents of the “Preparedness” Model
    1. Prevention Preparedness Response
    2. Stabilization of Injuries
    3. Wound Treatment
    4. Resuscitation
    5. Referral of Victims
    6. Recovery
    7. The “All-Hazards” Model
    8. A Single Plan, with Minor Variations, Can Be Used to Address the Majority of Emergencies
G. Potential Participants in Emergency Preparedness
    1. Health Care Personnel
    2. Role in Nursing and Midwifery
    3. Doctors

4. Environmental Health Technicians
5. Police
6. Firefighters
7. Hazard Management Specialists
8. Government Representatives, MOH
9. Community Members

H. Steps In Optimizing an Emergency Preparedness Plan Employing the All-Hazards Model
   1. Identify Hazards/Emergencies Facing the Community
   2. Take Action to Reduce or Eliminate, Where Possible
   3. Identify Component Activities Necessary to Mitigate Remaining Threats, if They Arise
   4. Develop an Overall Plan
   5. Organize, Train, and Equip Participants
   6. Run Exercises
   7. Evaluate and Improve Plan

I. Primary Goals of Preparedness Plans
   1. Reduce:
      a) Death
      b) Injury
      c) Disease risk
      d) Destruction of property and community and environmental resources
   2. Restore Basic Needs:
      a) Physical
      b) Psychological
      c) Mental
      d) Counseling
      e) Water
      f) Food
      g) Shelter/clothing
      h) Sanitation
      i) Medical care
   3. Safety and Security for Vulnerable Populations
   4. Recover Health, Safety, and Well-Being in the Community and Its Members
   5. Family Reunification

J. Emergency Care
   1. Description
   2. Scope

3. Basic Principles
4. Activities
5. Triage/Patient Assessment
6. Emergency Room Staff Management:
    a) Stabilization of injuries
    b) Wound treatment
7. Management of Medical/Surgical Emergencies:
    a) Cardiac arrest
    b) Cardiovascular accidents
    c) Cerebrovascular accidents
    d) Asthma
    e) Diabetic coma
    f) Convulsive attacks
    g) Seizures
    h) Poisoning
    i) Chemical ingestions
    j) Acute abdomen
    k) Intestinal obstruction
    l) Drowning
    m) Aspiration
    n) Burns
    o) Poisoning
    p) Alcoholic coma
    q) Snake bites
    r) Bleeding
    s) Shock
8. Management of Pediatric Emergencies
9. Management of Psychiatric Emergencies
10. Role of The Midwife in Emergency Preparedness and Disaster Management

Course Expectations:

- Regular classroom and laboratory session attendance
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and skills laboratory sessions
- Complete all assignments and examination on due dates

Required Resources:

- Handouts/reading materials
- Skills lab
- Anatomical models/charts
- Skeleton
- Microscope

Assessment Criteria – Standard Grading System:

- Quizzes 15%
- Assignments 15%
- Attendance 5%
- Midterm Exam 25%
- Final Exam 40%

References/Textbooks:

John D, Petri W. 2006. *Markell and Voge's Medical Parasitology*, 9th ed. Elsevier.

Eddleston M, Davidson R, Brent A, Wilkinson R. 2008. *Oxford Handbook of Tropical Medicine*. 3rd ed. Oxford: Oxford University Press.

Heyman DL. 2015. *Control of Communicable Diseases Manual*, 20th ed. Washington DC: American Public Health Association.

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

Guidelines for EVD diagnoses, assessment, and treatment References: slides with synopsis of infectious and tropical diseases.

Psychiatric Mental Health

Credits: 4

Duration:

16 weeks (14 instructional and 2 exams)
56 instructional hours

Placement within the Curriculum:

Semester 2

Prerequisites:

Tropical and Communicable Diseases, Anatomy and Physiology II, ICT/Research, and Clinical Rotation I

Course Description:

This course introduces the student to basic concepts in mental health, the development and characteristics of normal mental health and a variety of common psychiatric conditions, and the characteristics and treatment of mental illnesses. This course 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 competence in using the *Diagnostic Statistical Manual for Mental Disorders,* version five revised text (DSM-V-TR) multi-axial diagnosis approach; and in evaluating factors in the individual, family, or community that hinder or promote achievement of optimal mental health.

Course Outcomes:

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

- Discuss and examine the psychological, social, and emotional development of an individual

- Implement activities for promoting the mental health of individuals, families, and communities across the lifespan based on basic psychiatric theories and concepts in relation to human society
- Utilize various screening tools, assess psychiatric patients, and manage mental health disorders in an integrated PHC approach, including referrals to mental health clinicians (MHC) or physicians
- Counsel the patient with psychiatric disorders and apply other preventive measures
- Appropriately manage individuals, families, and communities with mental health/psychiatric needs
- Define mental health and mental illness
- Discuss the history of mental health in Liberia
- Identify the role of the midwife in the promotion of mental health
- Describe the normal stages of mental development
- Describe the three stages of personality development and the levels of thought
- List biological and cultural factors in personality development
- Describe the influence of the family and community on the mental health of the individual
- Conduct a mental health interview according to guidelines
- Define verbal and nonverbal communication
- List five elements that promote communication
- List three barriers to effective communication
- Describe the methods of therapeutic communication
- Define stress
- Describe physical symptoms of stress
- Discuss effective and ineffective ways for coping with stress
- Define defense mechanisms
- Describe common defense mechanisms
- Describe selected mental disorders
- Recognize the symptoms of acute mental illnesses
- Explain how the DMV-V TR can be used to identify and diagnose psychiatric disorders

- Discuss and analyze a mental health case report
- Explain what depression is and how to recognize symptoms of depression
- List the symptoms/criteria for diagnosing depression
- List common therapies for treating depression
- Explain what anxiety disorders are and how to recognize the symptoms of anxiety disorders, including Open Mole, and describe appropriate care for the patient
- Explain what psychosomatic conditions are, how to recognize them, and the appropriate care for the patient
- Explain the meaning of psychosis and mania, describe the signs and symptoms of each condition, and discuss appropriate care for the patient
- Describe clinical signs and symptoms of a mother experiencing postpartum psychosis
- Describe care for care for a postpartum mother with postpartum psychosis
- Describe appropriate care and counseling for the dying

Competencies:

Knowledge	Attitude/Value	Skill
Uses the DSM IV-TR multi-axial diagnosis to assess and manage clients with mental health problems in a variety of settings	Complies with the principles of the DSM IV-TR multi-axial diagnosis system when assessing and managing patients with mental health disorders	Identifies mental disorders of patients using the DSM IV-TR multi-axial diagnosis system
Plans activities for promoting the mental health of individuals, families and communities	Works with families and communities to identify activities that promote mental health	Initiates, in collaboration with families and communities, mental health activities for all age groups
Demonstrates ability to appropriately manage individuals, families and communities with mental health/psychiatric needs	Aids in planning the treatment and management of Individuals, families and communities with mental health needs	Utilizes the midwifery management process to the treatment of patients with mental health needs
Applies principles of ethical decision-making when engaging patients with mental health needs	Serves as advocate to ensure the rights of patients with mental health needs are	Displays the use of principles of informed consent when caring for

	protected	patients with mental health needs
Demonstrate ability to work collaboratively within a multidisciplinary team for the provision of care to individuals, families and communities with mental health problems	Differentiate the role of each member within a multidisciplinary team to ensure that the mental health needs of individuals, families and communities are met	Volunteers assistance as member of a multidisciplinary team to ensure coordination in the provision of care to individuals, families and communities with mental health problems

Course Content:

Unit I │ Introduction and Overview of the Course

A. Definition of Mental Health and Mental Illness
B. Trends and Issues in Mental Health
C. Legal and Professional Aspects of Mental Health in the Country
D. Characteristics of Mental Health and Mental Illness
E. Psychosocial Disorders
F. Speech Disorders

Unit II │ Assessment of a Patient with Psychiatric/Mental Problems

A. Therapeutic Relationship
B. History Taking
C. Physical Assessment (Including Laboratory Findings)
D. Mental Status Assessment
E. DSM-V-TR Multi-Axial Diagnosis
F. Personality Development and Socialization

Unit III │ Causes of Psychiatric Disorders

A. Biological
B. Psychological
C. Social/Environmental
D. Interrelationship Between Causes
E. Definition of Stress; Causes, Signs and Symptoms, and Management
F. Definition of Crisis; Causes, Signs and Symptoms, and Intervention

Unit IV │ Classification of Mental Disorders

A. Anxiety Disorders
B. Mood Disorders
C. Psychotic Disorders
D. Substance and Drugs Use Disorders
E. Personality Disorders
F. Psychiatric Disorders Common in Children and Adolescents
G. Dementia
H. Common Defense Mechanisms
    1. Denial
    2. Repression
    3. Displacement
    4. Projection
    5. Conversion Reaction
    6. Compensation
    7. Rationalization

Unit V │ Normal Stages of Mental Growth During the Human Life Cycle

A. Intrauterine Growth
B. Birth to 3 Years
C. The 4–6-Year-Old Child
D. 7–12 Years: Age of Socialization
E. Adolescence
F. Young Adult/Parenthood
G. Middle Age
H. Old Age
    1. Stages of Personality Development
    2. Levels of Thought:
        a) Conscious
        b) Subconscious
        c) Unconscious
    3. Biological and Cultural Factors in Personality Development
    4. Influence of The Family and Community on Mental Health of the Individual
    5. Personality Development and Socialization:
        a) Individual and group interaction

b) Stress mechanisms and responses
c) Adaptation/coping mechanisms
d) Theories and psychiatric mental health practices
e) Sexuality and sexual concerns

Unit VI │ Stress and Mental Health

A. Definition of Stress
B. Causes of Stress
C. Symptoms of Stress
D. Effective Ways for Dealing with Stress
E. Ineffective Ways for Dealing with Stress
F. Stress Management
G. Common Defense Mechanisms
    1. Denial
    2. Repression
    3. Displacement
    4. Projection
    5. Regression
    6. Conversion Reaction
    7. Compensation
    8. Rationalization

Unit VII │ General Mental Health Interventions

A. Mental Health Assessment
    1. Communication for the Assessment
    2. Definition of Communication:
        a) Verbal
        b) Nonverbal
        c) Process
    3. Components of the Communication Process:
        a) Elements of communication
        b) Barriers to effective communication
    4. Methods of Therapeutic Communication:
        a) Rapport
        b) Empathy
        c) Sympathy

d) Body language
e) Silence
f) Listening
g) Presence
h) Touch
i) Talking

5. Assessment in Psychiatric Mental Health
6. The Use of a Standardized Assessment Tool
7. Includes the Patient's History and Identify the Mental Status of the Patient
8. Types:
    a) Mini mental: brief initial screening with all of the patients:
    b) Full mental: in-depth mental health assessment for those who seem to have symptoms:
        (1) Complaints spanning more than three months
        (2) A history of problems at home, such as violence
        (3) Physical symptoms of fear
        (4) Anxiety
        (5) Behavioral signs of potential mental health problems:
            i. Being extremely withdrawn or not wanting to talk
            ii. Being extremely jumpy, agitated, or frightened
        (6) Complaining of lack of sleep
        (7) Unexplained tiredness
        (8) Incoherent, confused speech
        (9) Strange behavior
        (10) Abnormal dress
        (11) Little facial expression
        (12) Aggressive or violent behavior
        (13) Physical restlessness, cannot sit still
9. Check the Following**:**
    a) Appearance: looks, dressing, hygiene, and grooming
    b) Speech: intelligible, clear, mumble, fast
    c) Mood: hostile, grandiose, helpless

    d) Reality orientation:
        (1) Time and date
        (2) Place and location
        (3) Memory: recent and past

10. Therapeutic Interventions:
    a) Counseling
    b) Group therapy
    c) Management of aggression/violence
    d) Psychopharmacotherapy
    e) Milieu therapy
    f) Occupational therapy

B. Mental Health Counseling/IPCC
    1. Kinds of Counseling**:**
        a) Supportive counseling
        b) Client-centered or person-centered counseling
        c) Group therapy or group counseling
    2. Essential Factors:
        a) Face-to-face
        b) Confidentiality
        c) Nonjudgmental, accepting, and caring atmosphere regular schedule
        d) State ground rules and expectations
    3. Steps in the Keep it Short and Simple (KISS) Process:
        a) Welcome the client, exchange greetings and introductions
        b) Ask the client about the reason for the visit
        c) Provide ground rules and confidentiality
        d) Assist the clients in discussing their problems, build on their own strengths, and find their own solutions
        e) Allow the client the opportunity to discuss experiences that are difficult and painful
        f) Listen attentively to the client's story
        g) Reflect and encourage the client to resolve issues
        h) Provide closure and discuss the next appointment

C. Overview of Treatment of Psychiatric Disorders

1. Tranquilizers (short-term for anxiety)
2. Antidepressants
3. Lithium
4. Chlorpromazine and Other Antipsychotics
5. Psychotherapy

D. Prevention and Mental Health Rehabilitation Programs
E. Mental Illness Case Report
    1. Components
    2. Process

Unit VIII │ Disorders

A. Psychiatric Disorders
    1. Causes of Psychiatric Disorders:
        a) Biological
        b) Psychological
        c) Social
    2. Interrelationship Between Biological, Psychological, and Social Causes
    3. Classification and Diagnosis of Psychiatric Disorders
    4. The DSM-V-TR Multi-Axial Diagnosis:
        a) Anxiety disorders
        b) Mood disorders
        c) Psychotic disorders
        d) Substance use disorders
        e) Personality disorders
        f) Psychiatric disorders common in children and adolescents
        g) Dementias
    5. Neuroses Differentiated from Psychoses
    6. Depression:
        a) Definition
        b) Causes:
            (1) Stressful or traumatic life events
            (2) Poverty or loss of employment
        c) Signs and Symptoms:
            (1) Low mood or loss of interest
            (2) Low energy/general inactivity
            (3) Changes in appetite, weight, or sleep pattern
            (4) Feelings of guilt or worthlessness

(5) Little or no facial expression
(6) Bad self-care
(7) Suicidal ideas
(8) Illnesses, headaches
(9) Loss of concentration or difficulties making a decision
(10) Recurring thoughts about death, either the wish to die or fear of dying
(11) Frequent crying
(12) Withdrawing from others (social isolation)
(13) Neglecting personal appearance
(14) Stooped posture or dejected facial expressions

B. Diagnosing Moderate or Severe Depression
   1. The Patient Must Have at Least Two of the Following Three Symptoms:
      a) Depressed mood (and/or irritability in a child) most of the day, almost every day
      b) Loss of interest or pleasure in activities normally pleasurable
      c) Decreased energy/becoming fatigued easily/always feeling fatigued

C. 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:

In the last 2 weeks	Never	Few times	Many 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 downhearted, 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 work?	0	1	2	3
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 you are moving around without doing anything?	0	1	2	3
9. Do you sometimes think it is better that you die, or do you 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, and Kalisa

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 and functional impairment also is definitely present, refer the patient to a mental health clinician for treatment.

D. Management

1. Manage comorbidities. Assess for physical illnesses that occur frequently with depression (in some cases even cause it). A thorough history and physical examination are required. Common comorbid illnesses are:
    a) Hypothyroidism (also a cause of depression)
    b) Anemia
    c) Cancer
    d) Stroke
    e) Hypertension (sometimes with headache)
    f) Diabetes
    g) HIV
    h) Alcoholism/substance abuse
    i) In addition to treating depression, also treat any comorbid illnesses. Note some drugs such as steroids may also cause depression.
2. Educate the patient and caretakers about the causes, symptoms, effects, treatment, and usual course of depression.
3. Assure and reassure the patient that depression can be treated and usually improves.
4. Look for stressful situations (psychosocial stressors) that may have brought on the depression. Discuss them and help the patient choose possible ways to resolve them.
5. Encourage physical activity, which decreases depression.
6. Encourage the patient to become socially active again, both with members of his own household and with others with whom he previously liked to spent time.

E. Treatment
1. Best to send patients to a mental health clinician; if you have not been trained as a mental health clinician and must treat the patient in your clinic, do the following:
    a) 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:
        (1) FLUOXETINE 20 mg. caps. Start with one daily; if no improvement within 4 weeks may increase to 40 mg. This is a selective serotonin reuptake inhibitor (SSRI).
        (2) AMITRIPTYLINE 25 mg. tablets (tricyclic antidepressant). Start 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.

(3) IMIPRAMINE 25 mg. tablets (tricyclic antidepressant). Start with 25 mg.
(4) t.i.d. (or 75 mg. H.S.). If not improving, may increase gradually to 50 mg.
(5) t.i.d. (150 mg. /day total).

2. Side Effects of Each Medication and Cautions

F. Anxiety Disorders
1. Description
2. Causes:
a) Stressful life events
b) Trauma
3. Signs and Symptoms:
a) Increased palpitations
b) A feeling of suffocation
c) Dizziness or headaches
d) Sweating
e) Trembling or shaking all over
f) Loss of appetite
g) Sleeping disorders
h) Intense fear, nervousness, or worry
i) Difficulty concentrating
j) Thoughts of dying, losing control, or going mad
k) Repeatedly thinking the same distressing thoughts again and again despite efforts to stop thinking them
l) Going out of their way to avoid situations that cause fear
m) Nervous
n) Cannot sleep well
o) Sometimes headache, heartburn, epigastric pain, or belching
4. Ask**:**
a) How severe are they?
b) Have you had previous treatment?
c) Do you have pain?
d) Any headache, heartburn, epigastric pain or belching? Any recent very stressful situations?
e) Any history of significant gender-based violence, trauma or abuse?

5. Take the blood pressure, pulse, temperature and weight. Look for other possible illnesses causing the symptoms:
    a) Is the patient pale? (anemia causing the symptoms)
    b) Does the patient have distended neck veins, large liver, shortness of breath, and ankle edema? (congestive heart failure causing anxiety)
    c) Is the stool black? (bleeding ulcer causing anemia)
    d) Bulging eyes and rapid pulse? (hyperthyroidism)
    e) 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
1. Feeling nervous, anxious, or on edge	1	2	3	4
2. Not being able to stop or control worrying	1	2	3	4
3. Worrying too much about different things	1	2	3	4
4. Trouble relaxing	1	2	3	4
5. Being so restless that it's hard to sit still	1	2	3	4
6. Becoming easily annoyed or irritable	1	2	3	4
7. 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
- 10–14 = Likely a moderate anxiety disorder
- 15–21 = Severe anxiety disorder

Nervousness/Feeling Anxious with:

Complaints and observations	Assessment	Plan of treatment
1. Right upper abdominal pain, black stool, and looking pale	Peptic ulcer with anemia	Refer to hospital (with IV ringers if low BP--hold systolic BP at 80–90)
2. Looking pale and pulse above 92 (check Hgb to prove anemia and severity)	Anxiety from anemia	Refer to hospital if severe anemia
3. Distended neck veins and edema, short-of-breath	Congestive heart failure	Give Hydrochlorothiazide 50 mg.and refer to hospital
4. Enlarged thyroid with bulging eyes, fast pulse	Toxic goiter	Refer to hospital
5. Nervous, headache, and high blood pressure	Hypertension (HTN)	HTN in chronic diseases (note: may also have anxiety)
6. Nervous and anxious, otherwise well: not pale, no edema, normal pulse and BP	Anxiety (may be chronic)	Do the GAD-7 screen for anxiety in the chart above; the screen helps identify anxiety and its severity

G. Treatment of Chronic Anxiety
   1. Counseling
   2. Minor tranquilizing drugs, such as diazepam 5 mg. t.i.d. given for 3 to 5 days only
   3. Referring the patient to a mental health clinician with the Open Mole Syndrome; traditional medicine that have proven to not be toxic may also be used, and also often succeeds in getting the patient to improve
   4. Traditional Medicine: The Adult Open Mole Syndrome

H. Post-traumatic Stress Disorder (PTSD)
   1. Description**:**
      a) Post: after, following
      b) Trauma: pain, hurt, shock, injured, wound, exposure to violence
      c) Stress: exhausted, depressed, burdened, worry, tension
      d) Disorder: abnormal, unbalance, uneasy
   2. Four Characteristics of PTSD According to Van de Keelk (1987):
      a) A surprising occurrence
      b) Of piercing intensity
      c) Outside the range of human experience

d) Frightens almost anyone

3. Cause: The patient was involved in, witness to, or confronted by one or more life- threatening events
4. Signs and symptoms of PTSD:
    a) Flashback
    b) Avoidance
5. Hypervigilance examples:
    a) They have no show of motivation
    b) They cannot concentrate
    c) They experience hopelessness, no hope for the future
    d) They show lack of interest in activities and other people
    e) They become chronically irritable and easily become angry and violent
    f) They become pre-occupied with the traumatic experience
    g) They procrastinate
    h) They have difficulty making decisions
    i) They become rebellious, and do the obviously wrong things
    j) Even a little sound can excite or make them afraid
    k) They may be unable to sleep
    l) They may try to avoid people or places associated with the trauma
    m) Students do not do well in school
    n) They develop psychosomatic illnesses (such as headache, stomach, or other body aches), high blood pressure, or may complain of open mole
    o) They easily become tired
    p) Changes in emotions, appetite, sexual drive, sleep pattern
6. Diagnosis**:**
    a) Ask the following 10 questions. A “yes” response to six or more indicates a very strong possibility of the client having PTSD. (It is best to wait at least three weeks after the event before administering the TSQ.)

Trauma Screening Questionnaire (TSQ) for Helping Identify PTSD

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?		
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,* 158–16

- The PC-PTSD is a four-item screen
- Designed for use in primary care and other medical setting
- Currently used to screen for PTSD in veterans of military service in the United States

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

7. Interpretation:
    a) The authors suggest that in most circumstances the results of the PC-PTSD should be considered “positive” if a patient answers “yes” to any three items
    b) Those screening positive should then be assessed with a structured interview for PTSD
    c) Current research suggests that the results of the PC-PTSD should be considered “positive” if a patient answers “yes” to any three items

8. Management:
    a) Try to establish a cordial relationship with the patient as much as possible
    b) Observe good listening techniques; listening, showing interest, and being empathetic is very important
    c) Provide psychological first aid (PFA) for all who have experienced any trauma:
        (1) Listen as they would like you to
        (2) Provide privacy for talking with the person
    d) Encourage individuals to identify small steps toward recovery (such steps as seem appropriate for each person) and to take those steps as much as they can
    e) Assess the client's level of understanding of PTSD
    f) Teach about the disorder
    g) Explore with the client what situations give the most unfavorable feelings
    h) Explore what they enjoy doing with less stress
    i) Consider using antidepressants to treat significant symptoms of anxiety and/or depression such as Fluoxetine 20 mg. daily
    j) See the patient again every 2–4 weeks to listen and give further encouragement, and to monitor symptoms and effectiveness of treatment
    k) 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

I. Psychosis
1. Description**:**
    a) Abnormal actions, thoughts, and speech
    b) Can be chronic or acute
    c) Untreated psychosis can lead to brain damage
2. Signs and Symptoms:
    a) Hallucinations:
        (1) Disturbed perceptions of the senses (hearing, seeing, feeling, smelling)
    b) Delusions:
        (1) 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
    c) Unusual or bizarre behavior
    d) Chaotic or extremely mute behavior
    e) Personality changes
    f) Difficulty with social interaction
    g) Incoherent speech
    h) Disorganized thinking
3. Management**:**
    a) Refer the patient immediately. Psychosis is a mental illness that can be treated with antipsychotic medication
4. Chlorpromazine, 25 mg. b.i.d. to 100 mg. b.i.d.Mania
5. Extremely elevated mood
6. Unusually high energy
7. Unusual thought patterns
8. Unusually busy, agitated, or irritable
9. Symptoms:
    a) Extreme high self-esteem, the feeling of being the greatest
    b) Unwillingness to sleep
    c) Speaking a lot or much more than usual
    d) Feeling of fast thinking
    e) Constantly distracted, poor concentration
    f) Increased libido and sexually risky behavior
    g) Physical restlessness
    h) Crying and laughing
    i) Can also have delusions and hallucinations
    j) Anxiety and paranoia
    k) Uncontrolled sexual behavior
10. If you suspect that a patient may be violent or suicidal, take appropriate precautions. Inform family members:
    a) Rule out physical cases whenever possible
    b) Immediately refer the patient to a higher level of care for a mental assessment
    c) Remember, the disease can be controlled or treated
    d) Do not stigmatize the patient. The person can be useful and reintegrated into her/his life

J. Manic-Depressive Disorder:
    1. Bipolar Disorder
    2. 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 three or more of the following situations for more than 3 weeks:
        a) Extremely elevated mood
        b) Extremely talkative, with a flight of ideas
        c) Extremely decreased need for sleep
        d) Feeling that he is great (grandiose ideation)
        e) Easily distracted
        f) Reckless behavior
        g) Depression and signs of depression
        h) Bipolar disorder has to be treated differently. If bipolar disorder is probable, send the patient to a mental health clinician or hospital for treatment.

K. Alcohol and Substance Abuse

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 vexed you 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: Out of 4 (2/4 or greater = positive CAGE, further evaluation is indicated)

1. General Symptoms Include the Following:
    a) Inability to stop using the substance
    b) Frequently using the substance in dangerous or inappropriate situations (e.g. drinking and driving)
    c) The person’s social life influenced by the substance abuse

d) Constant craving for the substance and willingness to go to great extremes to get it

Brief Drug Abuse Screening Test (B-DAST)

Instructions: The following questions concern information about your involvement and abuse of drugs. Drug abuse refers to (1) the use of prescribed or over-the-counter drugs in excess of the directions and (2) any nonmedical use of drugs. Carefully read each statement and decide whether your answer is "yes" or "no." Then circle the appropriate response.	**Yes or No**
1. Have you used drugs other than those required for medical reasons?	Yes/No
2. Have you abused prescription drugs?	Yes/No
3. Do you abuse more than one drug at a time?	Yes/No
4. Can you get through the week without using drugs (other than those required for medical reasons)?	Yes/No
5. Are you always able to stop using drugs when you want to?	Yes/No
6. Have you had "blackouts" or "flashbacks" as a result of drug use?	Yes/No
7. Do you ever feel bad about your drug abuse?	Yes/No
8. Does your spouse (or parents) ever complain about your involvement with drugs?	Yes/No
9. Has drug abuse ever created problems between you and your spouse?	Yes/No
10. Have you ever lost friends because of your use of drugs?	Yes/No
11. Have you ever neglected your family or missed work because of your use of drugs?	Yes/No
12. Have you ever been in trouble at work because of drug abuse?	Yes/No
13. Have you ever lost a job because of drug abuse?	Yes/No
14. Have you gotten into fights when under the influence of drugs?	Yes/No
15. Have you engaged in illegal activities in order to obtain drugs?	Yes/No
16. Have you ever been arrested for possession of illegal drugs?	Yes/No
17. Have you ever experienced withdrawal symptoms as a result of heavy drug intake?	Yes/No
18. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding)?	Yes/No
19. Have you ever gone to anyone for help for a drug problem?	Yes/No

20. Have you ever been involved in a treatment program specifically related to drug use?	Yes/No
Items 4 and 5 are scored in the "no," or false, direction; each item is 1 point; 6 or more points suggest significant problems.	

From Skinner HA: Addict Behavior 7:363, 1982; Center for Substance Abuse Treatment: Substance abuse treatment for persons with co-occurring disorders. Treatment Improvement Protocol (TIP) Series 42. DHHS Publication No. (SMA) 05-3992, Rockville, MD, 2005, Substance Abuse and Mental Health Services Administration.

L. Postpartum Psychosis
   1. Signs and Symptoms of Postpartum Psychosis:
      a) Sudden onset
      b) Paranoid delusions
      c) Hallucinations
      d) Agitation and mood disturbances
      e) Withdrawal from social situations
      f) Infant neglect
      g) Causes of postpartum psychosis:
   2. Physical Factors**:**
      a) Febrile illness after delivery
      b) Postpartum hemorrhage
      c) Toxemia of pregnancy
      d) Severe malnutrition
      e) Hypertension
      f) Epilepsy
      g) Previous mental illness

M. Screening for Postpartum Depression
   1. Edinburgh Postnatal Depression Scale (EDPS):
      a) The 10-question EPDS 2 is a valuable, efficient, and effective screening tool way of identifying patients at risk for "perinatal" depression.
      b) Mothers who score above 13 are likely to be suffering from a depressive illness of varying severity.
      c) The scale indicates how the mother has felt during the previous week.
      d) The scale will not detect mothers with anxiety neuroses, phobias or personality disorders.
   2. Instructions for Using the EDPS
   3. Scoring

Edinburgh Postnatal Depression Scale 1 (EPDS)

Name:_____
Address:_____
Your date of birth: _____
Health facility: _____
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:

☐ 0 Yes, all the time
☐ 1 Yes, most of the time during the past week
(this would mean "I have felt happy most of the time")
☐ 2 No, not very often
☐ 3 No, not at all

Please complete the other questions in the same way. In the past 7 days:

I HAVE BEEN ABLE TO LAUGH AND SEE THE FUNNY SIDE OF THINGS

☐ 0 As much as I always could
☐ 1 Not quite so much now
☐ 2 Definitely not so much now
☐ 3 Not at all

I HAVE LOOKED FORWARD WITH ENJOYMENT TO THINGS

☐ 0 As much as I ever did
☐ 1 Rather less than I used to
☐ 2 Definitely less than I used to
☐ 3 Hardly at all

I HAVE BLAMED MYSELF UNNECESSARILY WHEN THINGS WENT WRONG

☐ 0 No, never
☐ 1 Not very often
☐ 2 Yes, some of the time
☐ 3 Yes, most of the time

I HAVE BEEN ANXIOUS OR WORRIED FOR NO GOOD REASON

☐ 0 No, not at all
☐ 1 Hardy ever

☐ 2 Yes, sometimes
☐ 3 Not ever

I HAVE FELT SCARED OR PANICKY FOR NO GOOD REASON

☐ 0 No, I have been coping well as ever
☐ 0 No, not at all
☐ 1 No, not so much
☐ 2 Yes, sometimes
☐ 3 Yes, quite a lot

THINGS HAVE BEEN GETTING ON TOP OF ME

☐ 1 No, most of the time I have coped quite well
☐ 2 Yes, sometimes I haven't been coping as well
☐ 3 Yes, most of the time I haven't been able to cope at all

I HAVE BEEN SO UNHAPPY THAT I HAVE HAD DIFFICULTY SLEEPING

☐ 0 No, not at all
☐ 1 Not very often
☐ 2 Yes, sometimes
☐ 3 Yes, most of the time

I HAVE FELT SAD OR MISERABLE

☐ 0 No, not at all
☐ 1 Not very often
☐ 2 Yes, sometimes
☐ 3 Yes, most of the time

I HAVE BEEN SO UNHAPPY THAT I HAVE BEEN CRYING

☐ 0 Not at all
☐ 1 Not very often
☐ 2 Yes, quite often
☐ 3 Yes, most of the time

THE THOUGHT OF HARMING SOMEONE HAS OCCURRED

☐ 0 Never
☐ 1 Hardly ever
☐ 2 Sometimes
☐ 3 Yes, quite often

Administered/Reviewed by:_____ Date: _____

Reference

Source: 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.
2 Source: K. L. Wisner, B. L. Parry, C. M. Piontek, Postpartum Depression N Engl J Med vol. 347, No 3, July 18, 2002, 194–199

N. Management of Postpartum Psychosis
    1. Evaluate Suicide Potential
    2. Separate Infant and Arrange for Infant to Breastfeed under Supervision of Responsible Relative
    3. Hydration and Nutrition
    4. Reassurance and Counseling
    5. Referral and Hospitalization
    6. Preventive Measures for Postpartum Psychosis
O. Improved Prenatal and Postnatal Care to Reduce the Complications of Mental Health Disorders in Pregnancy
    1. Patients at Risk Should Have Early Postpartum Checkups
    2. Early Treatment of Any Complication, Physical or Psychological
    3. Education (IEC/BCC) on Dangers of Toxic Drugs Used by Traditional Healers
P. Counseling Skills
    1. Definition of Counseling
    2. To create this Trusting Relationship, the Counselor Should**:**
        a) Prepare a comfortable seating
        b) Respect the client's privacy and confidentiality (discussion cannot be overheard by other people)
        c) Be patient as the survivor may find it hard to express her experience and feelings initially
        d) Show concern throughout the session, listen carefully and empathetically, and observe nonverbal clues
        e) Have appropriate facial expressions; i.e. if the client cries the counselor's facial expression should show sympathy and concern
        f) Show respect for uniqueness
        g) Use open-ended questions to offer the client the chance to explain things in some details
        h) Have nonjudgmental attitudes
        i) Make good eye contact from time to time to check that you have heard her correctly and avoid misunderstanding
    3. During the Counseling Session, Observe the Mental Status of the Client:
        a) Alertness, attentiveness
        b) Behavior, speech
        c) Support
        d) Mood: how she feels?
        e) Affected: how she looks?

f) Appropriate?
g) Thought process: flights of ideas?
h) Thought content: are they consistent with reality?
i) Knowledge: oriented to time and place?
j) Judgment, insight

Q. Professional Issues in Psychiatric Mental Health
1. Legal Implications
2. Selected Psychiatric Disorders Common in Children
3. Dementias

Course Expectations:

- Regular classroom and laboratory session attendance
- Come to class prepared having completed all homework and reading assignments
- Participate actively in class and skills laboratory sessions
- Complete all assignments and examination on due dates

Required Resources:

- Handouts/reading materials
- Skills lab

Assessment Criteria – Standard Grading System:

- Quizzes 15%
- Assignments 15%
- Attendance 5%
- Midterm Exam 25%
- Final Exam 40%

References:

American Psychiatric Association. 2013. *Diagnostic and Statistical Manual 5*.
Arlington, VA: American Psychiatric Publishing.
Mertens, Paul. 2011. *A Handbook for Health Workers in Liberia*.
Ministry of Health. 2016. *Mental Health Policy and Strategic Plan for Liberia 2016–2021*.
Monrovia, Liberia: Ministry of Health, Republic of Liberia.
Ministry of Health & Social Welfare, Republic of Liberia, Module on Mental Health: For

Health Workers in the Clinical Areas, Basic Package of Health Services, 2013.
World Health Organization (WHO). 2010. *mhGAP Intervention Guide*. Geneva, Switzerland, WHO: 107.
World Health Organization (WHO). 2015. *Thinking Healthy: A Manual for Psychosocial Management of Perinatal Depression*. Geneva, Switzerland: WHO.
World Health Organization (WHO). 2015. Thinking Healthy: A Manual for Psychosocial Management of Perinatal Depression. Geneva, Switzerland: WHO.

Clinical Rotation II

Credits: 5

Placement within the Curriculum:

Semester 2

Duration:

16 weeks (14 instructional and 2 exam sessions)
224 clinical hours (2 eight-hour days/14 weeks)

Prerequisites:

Tropical and Communicable Diseases, Anatomy and Physiology II, ICT/Research, and Clinical Rotation I

Course Description:

This clinical course is intended to provide the midwife with an opportunity to practice his/her expanding scope of practice. Students will work in the lab as well as care for women and families in the clinic and hospital setting. The focus will be in three domains: 1) Women's health care throughout the lifespan, especially gynecological problems and those necessitating surgical treatment, 2) Psychological/psychiatric assessment, diagnosis and treatment and 3) Emergency and disaster preparedness skills. Throughout this course, students will be encouraged to work towards greater independence while practicing collaboration, consultation and referral where indicated.

Course Outcomes:

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

<u>Gynecology</u>

- Document complete history including sexual history and chief complaint for clients in the clinic and hospital setting.
- Demonstrate gynecological exam skills with minimal discomfort and privacy.

- Create differential diagnoses for clients who present with signs and symptoms of gynecological problems.
- Identify appropriate mechanisms for consultation, collaboration and referral in the care of women experiencing gynecological problems, including safe abortion utilizing the midwifery management process.
- Discuss options for family planning including contraceptive and infertility care.
- Demonstrate skills including wound care, pain relief and infection control that are specific to gynecological procedures pre and postoperatively.
- Develop a midwifery management plan including prevention, screening, assessment, diagnosis and treatment for the following:
    - STIs
    - Acute and chronic gynecological conditions
    - Peri/post-menopause vs warning signs that may require intervention
    - SGBV and/or FGM

<u>Psychiatry</u>

- Apply therapeutic communication strategies in the assessment and treatment of clients and families with psychiatric conditions.
- Implement screening tools to assist in identification of clients at risk for psychiatric illness.
- Develop a midwifery management plan including prevention, screening, assessment, diagnosis and treatment for psychiatric conditions.
- Differentiate between the normal hormonal shifts that occur in the postpartum period and the more serious conditions such as postpartum depression, anxiety and psychosis.
- Identify appropriate mechanisms for consultation, collaboration and referral in the care of clients with psychiatric conditions utilizing the midwifery management process.

<u>Emergency and Disaster Preparedness</u>

- Triage patients quickly and accurately including:
    - Head to toe assessment
    - IV placement
    - Treatment of shock
    - Proper positioning/patient handling

- Create an emergency or disaster plan.
- Identify appropriate mechanisms for consultation, collaboration and referral in the care of clients experience an emergency or disaster utilizing the midwifery management process.

Competencies:

Knowledge	Attitudes/Values	Skills
Recognize signs and symptoms of acute and chronic gynecological problems.	Using the midwifery model of care, support the psychosocial needs of women experiencing gynecological problems.	Screen for and treat women with acute and chronic gynecological problems.
Describe current options for diagnosis and treatment of gynecological problems including pharmacological and surgical.		Manage the pre and postoperative care of women treated surgically for gynecological conditions.
	Provide culturally competent care to women who are survivors of SGBV and FGM.	
Identify appropriate use of screening tools in the assessment of psychiatric conditions, especially in the pregnant and postpartum population.		Utilize screening tools in the assessment of psychiatric conditions.
Create a list of strategies that midwives use when communicating with women about their mental health.	Utilize therapeutic communication when counseling women.	Counsel women on preventative strategies that support optimal mental health.
Describe current strategies for diagnosis and treatment of psychological problems including pharmacological and counseling options.		Manage the care of women diagnosed with psychiatric conditions.
Describe the planning process and organizational resources needed when responding to an emergency or disaster.	Understand the importance of efficiency and accuracy when caring for clients experiencing emergencies or disasters.	Implement an emergency or disaster plan.
Identity when consultation,	Recognize this as an important	Communicate need for

collaboration or referral are necessary.	aspect in the provision of quality care.	consultation, collaboration or referral. to the appropriate team member.

Course Content:

Unit I │ Gynecology

A. The Following Competencies Will Be Demonstrated Through Direct Observation in the Clinical Setting, Post-Conference Discussion and SOAP Notes:
   1. Take a Focused Gynecological and Sexual History
   2. Perform a Thorough Pelvic Exam
   3. Perform Routine Screening Tests
   4. Test for and Treat STIs
   5. Provide Comprehensive Midwifery Care for Following:
      a) Menstrual disorders:
         (1) Amenorrhea
         (2) Dysmenorrhea
         (3) Menorrhagia
         (4) Metorrrhagia
         (5) Oligomenorrhea
      b) Pelvic Pain:
         (1) EP
         (2) Appendicitis
         (3) Ovarian torsion
         (4) Pelvic Inflammatory disease
         (5) Interstitial cystitis
         (6) Dyspareunia
         (7) Vulvodynia
         (8) Endometriosis
      c) Pelvic Masses:
         (1) Fibroids
         (2) Adenomyosis
         (3) Ovarian cysts
         (4) Polycystic Ovarian Syndrome
      d) Congenital uterine anomalies

      e) Pelvic floor conditions:

(1) Pelvic organ prolapse
(2) Urinary incontinence

f) Infertility
g) Menopausal care
h) SGBV
i) Cancer screenings
j) Vaginitis and STIs:
(1) Candidiasis
(2) Bacterial vaginosis
(3) Atrophic vaginitis
(4) Chlamydia
(5) Gonorrhea
(6) Syphilis
(7) Chancroid
(8) Lymphogranuloma Venereum
(9) Human Papilloma Virus (HPV)
(10) Herpes
(11) Hepatitis B
(12) Trichomoniasis
(13) Pubic lice

k) Family planning:
(1) Abstinence
(2) Fertility Awareness Methods
(3) Lactational Amenorrhea
(4) Intrauterine Device (IUD)
(5) Pills:
i. Progesterone Only Pills (POPs)
ii. Combined Oral Contraceptives (COCs)
(6) Patches
(7) Rings
(8) Injectable methods
(9) Spermicides
(10) Barrier methods:
i. Condoms
ii. Diaphragms

(11) Permanent sterilization:

i. Tubal ligation
ii. Vasectomy

(12) Abortion counseling

(13) Emergency contraception:

i. Yuzpe Method
ii. Plan B

B. OSCEs

Unit II │ Psychiatry/Mental Health

A. The Following Competencies Will Be Demonstrated Through Direct Observation In the Clinical Setting, Post-Conference Discussion and SOAP Notes:

1. Take a focused mental health history
2. Screen for and treat the following conditions**:**

a) Depression
b) Stress:
(1) PTSD
c) Anxiety
d) Obsessive Compulsive Disorder
e) Phobias
f) Panic disorder
g) Bipolar disorder
h) Premenstrual dysphoric disorder
i) Mental illness in pregnancy and postpartum:
(1) Blues
(2) Depression
(3) Psychosis

B. OSCEs

Unit III │ Psychosis Emergency and Disaster Preparedness

A. The following Competencies Will Be Demonstrated Through Direct Observation in the Clinical Setting, Post-Conference Discussion and SOAP Notes:

1. Patient Assessment
2. Patient Triage
3. Prevention
4. Stabilization
5. Wound Treatment

6. Resuscitation
7. Referral Of Victims
8. Recovery
9. “All Hazards” Model
10. Leadership
11. Collaboration

B. OSCEs

Students will rotate through these three sites therefore the order may change but not the number of weeks/sessions

Teaching/Learning Strategies:

- On-site clinical practice
- OSCEs

Course Expectations:

- Regular attendance
- Come to clinical prepared
- Participate actively in clinical sessions
- Complete all assignments by the assigned due dates

Required Resources:

- Appropriate attire

Assessment Criteria – Standard Grading System:

- Attendance 5%
- Submit complete documentation (SOAP notes) for eight clients (3 GYN, 3 Psych, 2 Emergency) 40%
- OSCEs (one simulation in each of the three areas -GYN, Psych, Emergency) 30%
- Clinical case presentation 25%
- Midterm evaluation (Satisfactory/Unsatisfactory)
- Final evaluation (Satisfactory/Unsatisfactory)

References:

Bickley, L., Szilagyi, P. & Hoffman, R. (2017). *Bates Guide to Physical Exam and History Taking*. Philadelphia, PA: Wolters Kluwer.

King, T., Brucker, M., Jevitt, C. & Osborne, K. (2019). *Varney's Midwifery, 6th ed.* Burlington, MA: Jones and Bartlett.

All textbooks assigned this term may be used in this course

Clinical Affiliation/Senior Seminar

Credits: 13 (9 theory and 4 clinical)

Placement within the Curriculum:

Semester 3

Duration:

16 weeks (14 instructional sessions)
BLSS/EmONC: 3 eight-hour days/6w (144h including 104h theory and 40h clinical)
Clinical: 2 eight-hour days x8w (128h)
Senior Seminar: 1 three-hour seminar/8w (24h)

Prerequisites:

Midwifery IV – Gynecology, Emergency Health and Disaster Response, Psychiatric Mental Health, and Clinical Rotation II

Course Description:

In this course students will complete various components of the Safe Motherhood Package including Basic Life Saving Skills (BLSS) and Emergency Obstetric and Newborn Care (EmONC). After completion of these modules, the seminar sessions will begin utilizing case studies, student led presentations and discussions as a means of continuing to review the current evidence base, country specific guidance and application of the midwifery management process. In the clinical portion of this course, students will practice full scope midwifery care in accordance with the International Confederation of Midwives (ICM) and Liberian Board for Nursing and Midwifery (LBNM) standards of practice and will focus on antepartum, intrapartum, immediate postpartum and newborn care.

Course Outcomes:

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

- Document a thorough obstetrical history.

- Develop a midwifery management plan including assessment, diagnosis and treatment for the following early pregnancy complications including but not limited to:
  - Bleeding in pregnancy
  - Ectopic pregnancy
  - Threatened and spontaneous abortion
  - Molar pregnancy
  - Hyperemesis gravidarum
- Develop a midwifery management plan including assessment, diagnosis and treatment for the following maternal medical complications including but not limited to:
  - Diabetes
  - Cardiac disease
  - Hypertensive disorders
  - Severe anemia
  - Malaria
  - HIV and other STIs
- Develop a midwifery management plan including assessment, diagnosis and treatment for the following pregnancy complications including but not limited to:
  - Amniotic fluid disorders (oligo/polyhydramnios)
  - Placental complications (previa, abruption)
  - Growth issues (Small for gestational age (SGA)/ Intrauterine growth restriction (IUGR), Large for gestational age (LGA)/macrosomia)
  - PROM
  - PPROM
  - Preterm labor
  - Postdates pregnancy
  - Multiple gestation
  - Fetal distress
  - Prolonged labor
  - Obstructed labor
  - Ruptured uterus
  - Cephalopelvic disproportion
  - Malposition
  - Chorioamnionitis
  - Shoulder dystocia
  - Cord prolapse

- Develop a midwifery management plan including assessment, diagnosis and treatment for the following postpartum complications including but not limited to:
  - Uterine atony
  - Retained placenta
  - Uterine Subinvolution
  - Endometritis
- Implement Active Management of the Third Stage of Labor (AMTSL) and treatment of PPH when indicated utilizing appropriate strategies including:
  - Uterine massage
  - Bimanual compression
  - Aortic compression
  - Use of antishock garments
  - Infection/sepsis
  - Postpartum depression/anxiety/psychosis
- Identify and repair perineal and cervical lacerations.
- Develop a midwifery management plan including assessment, diagnosis and treatment for the following neonatal complications including but not limited to:
  - Respiratory Distress Syndrome (RDS)/ Meconium aspiration syndrome (MAS)
  - Asphyxia
  - Hematomas
  - Jaundice
  - Neonatal infection/sepsis
  - Congenital abnormalities
  - Sudden Infant Death Syndrome (SIDS) prevention
- In the absence of complications, promote physiologic birth including delayed cord clamping, skin to skin care, breastfeeding support and routine newborn care.
- Following a resuscitation, provide supportive care or transfer of care as indicated by the clinical situation.
- Provide education to the parents regarding normal newborn care or for any complications that require additional care.
- In the event of a maternal and/or neonatal death, provide appropriate support or counseling to the client and her family.
- Provision of unbiased, evidence-based and comprehensive care to clients throughout the lifespan

- Use of the midwifery model of care including advocacy and shared decision making

Competencies:

Knowledge	Attitudes/Values	Skills
List the components of an obstetrical history.		Document a thorough obstetrical history.
List the steps of the midwifery management process.	Understand the importance of utilizing the midwifery management process in the care of women.	Utilize the midwifery management process in the care of women.
List the elements of a SOAP note.	Understand the value of SOAP notes for legal documentation and critical thinking.	Document patient care in the appropriate format thoroughly, accurately and without omissions.
Describe the steps of ATMSL and the most common order of interventions for management of PPH.		Implement ATMSL for all women and treatment of PPH when it is needed.
Explain the role (scope of practice) of the midwife in the care of newborns.		Assume care of newborns in accordance with ICM standards.
Identity when consultation, collaboration or referral are necessary.	Recognize this as an important aspect in the provision of quality care.	Communicate need for consultation, collaboration or referral.

Course Content:

BLSS - weeks 1-2: six 8-hour classes
EmONC - weeks 3-6: seven 8-hour classes and five 8-hour clinical sessions
Clinical Sessions - weeks 7-14: 2 eight-hour sessions per week
Senior Seminar: weeks 7-14:1 three-hour seminar session per week

Teaching/Learning Strategies:

- On-site clinical practice
- OSCEs

Course Expectations:

- Regular clinical session attendance
- Participate actively in clinical sessions
- Complete all assignments by assigned due dates

Required Resources:

- Appropriate attire
- Covered shoes

Assessment Criteria – Standard Grading System:

- Attendance 5%
- Submit complete documentation (SOAP notes) for eight clients (1 New OB, 1 second trimester OB, 1 third trimester OB, 2 Labor, 1 PP, 2 Newborn exams) 15%
- OSCEs (1 labor, 1 PP complication, 1 Neonatal Resuscitation) 25%
- Case Studies 15%
- Student led presentations/discussions 20%
- Final Exam 20%
- Midterm Evaluation (Satisfactory/Unsatisfactory)
- Final Evaluation (Satisfactory/Unsatisfactory)

References:

Bickley, L., Szilagyi, P. & Hoffman, R. (2017). *Bates Guide to Physical Exam and History Taking*. Philadelphia, PA: Wolters Kluwer.

King, T., Brucker, M., Jevitt, C. & Osborne, K. (2019). *Varney's Midwifery, 6th ed.* Burlington, MA: Jones and Bartlett.

All textbooks assigned throughout the curriculum should be used in this course