

Objectives in Obstetrics and Gynecology
For
Medical Students

Table of Contents

<u>TOPIC</u>	<u>PAGE</u>
Unit I - Approach to the Patient	
A. Attitudes and Psychological Skills-----	5
B. History-----	6
C. Physical Examination-----	7
1. With respect to the non-pregnant patient	
2. With respect to the pregnant patient	
D. Diagnosis and Management Plan-----	8
E. Well Woman Care Health Promotion and Disease Prevention-----	8
Unit II - Basic Science	
A. Anatomy-----	9
B. Embryology-----	9
C. Physiology-----	9
D. Genetics-----	10
E. Pharmacology-----	11
F. Anatomical and Physiological Changes in Pregnancy-----	11
G. Feto-Placental Unit-----	11
Unit III - Normal Obstetrics	
A. Maternal Physiology-----	12
B. Psychosocial Issues in Pregnancy-----	12
C. Antepartum Care-----	13
D. Intrapartum Period-----	14
E. Postpartum Period-----	14
F. The Normal Newborn-----	14
Unit IV - Abnormal Obstetrics	
A. Complications of Pregnancy-----	15
1. First and second trimester bleeding	
B. Pregnancy and Hypertension-----	15
C. Antepartum Hemorrhage (second and third trimester bleeding)-----	16
D. Pre-term Labor-----	16
E. Premature Rupture of the Membranes-----	16
F. Isoimmunization-----	17
G. Risk Assessment and Evaluation of Pregnancy-----	17
H. Multiple Pregnancy-----	17

TOPIC**PAGE**

I. Intrauterine Growth Restriction (IUGR)-----	18
J. Prolonged Pregnancy-----	18
K. Fetal Death-----	18
L. Congenital Anomalies-----	19
M. Hyperemesis Gravidarum-----	19
N. Abnormalities of Labor and Delivery-----	20
O. Abnormalities of the Post-Partum Period-----	21
P. Medical and Surgical Disease Affecting Pregnancy-----	22
Q. The Newborn-----	24

Unit V - General Gynecology

A. Congenital Lesions-----	25
B. Inflammatory Lesions-----	26
1. Lower genital tract lesions-----	26
2. Upper genital tract lesions-----	27
C. Neoplastic Lesions-----	28
1. Gestational trophoblastic disease-----	28
D. Pre-invasive and Invasive Carcinoma of the Cervix-----	28
E. Endometrial Cancer-----	29
F. Ovarian Neoplasms-----	29
G. Functional Ovarian Cysts-----	29
H. Malignant and Pre-Malignant Disease of the Vulva-----	30
I. Uterine Leiomyomata (fibroids)-----	30
J. Pelvic Relaxation and Urogynecologic Problems in the Female-----	31
K. Perimenstrual Disorders-----	32
1. Dysmenorrhea-----	32
2. Premenstrual Syndrome-----	32
3. Abnormal Uterine Bleeding-----	33
L. Endometriosis and Adenomyosis-----	34
1. Endometriosis	
2. Adenomyosis	
M. The Climacteric-----	34
N. Pediatric and Adolescent Gynecology-----	35
O. Sexually Transmitted Diseases-----	36

Unit VI - Gynecologic Endocrinology

A. Amenorrhea and Dysfunctional Uterine Bleeding-----	37
B. Normal Pubertal Development and its Abnormalities-----	37
C. Hirsutism and Virulization-----	37
D. Hyperprolactinemia-----	38
E. Premature Gonadal Failure-----	38

TOPIC**PAGE****Unit VII - Sexuality and Sexual Assault**

A. Sexuality-----	39
B. Sexual Assault and Domestic Abuse-----	40

Unit VIII - Fertility and Fertility Control

A. Infertility-----	41
B. Recurrent Pregnancy Loss (RPL)-----	41
C. Fertility Control-----	42
D. Sterilization-----	42
E. Therapeutic Abortion-----	42

Unit IX - Medical- Legal Issues

A. Doctor-Patient Relationship-----	43
B. Consent-----	43
C. Standard of Care and Liability-----	43
D. Mandatory Reporting-----	44
E. Special Legal Requirement Relating to Fertility Control-----	44

Unit X - Skills in Obstetrics and Gynecology

A. Gynecology-----	45
B. Obstetrics-----	45
C. Communication-----	46
1. Obstetrical-----	
2. Gynecologic-----	

UNIT 1

Approach to the Patient

A: Attitudes and Psychological Skills

The student will be able to:

1. Be aware of his or her own attitude towards women and their unique health problems and issues.
2. Respect patient's anxieties related to embarrassment, fear or disease, and confidentiality and despite these factors be able to gain the patient's confidence and cooperation.
3. Recognize the importance of transmission of information and patient education as an integral part of every gynecological and obstetrical history and physical examination.
4. Describe the psycho-social effects of physiological events such as puberty or pregnancy upon the patient and the family and be able to provide emotional and social support and education to patients in these circumstances.
5. Provide initial counseling and support in situations involving potential or acute emotional reactions related to:
 - grieving after pregnancy loss
 - gynecological surgery
 - sexual dysfunction
 - gynecological cancer and death
 - infertility investigations, and specific therapies for infertility
 - family dysfunction, including domestic violence
6. Describe the potential effects of illness and treatment modalities on a woman's sexuality and future reproductive potential.

B: History

The student will be able to:

1. Obtain the following basic elements of a reproductive history;
 - chief complaint
 - menstrual history (last normal menstrual period, interval, duration, amount, intermenstrual bleeding, dysmenorrhea, menarche and menopause dates)
 - present illness
 - vaginal bleeding
 - pain or mass in the abdomen, vagina, or breast
 - discharge in the vagina or breast
 - urinary symptoms
 - gastro-intestinal symptoms
 - genito-urinary prolapse symptoms
 - vulvar pruritus
 - infertility
 - past history
 - obstetrical
 - gynecological
 - contraceptive
 - sexual
 - medical
 - surgical
 - social
 - medications
 - allergies
 - family history including genetically determined diseases and history of breast, ovarian or gastro-intestinal malignancies.
 - social, occupational and marital history.

C. Physical Examination

The student will be able to:

I. With respect to the non-pregnant patient

1. Examine the breast and teach methods of breast self-examination.
2. Examine the abdomen, demonstrating the following elements;
 - inspection
 - palpation
 - eliciting point of maximal tenderness
 - eliciting signs of peritoneal irritation
 - assessment of masses
 - assessment of organ size
 - percussion
 - auscultation
3. Examine the pelvis and recognize abnormalities in the following structures;
 - vulva
 - vagina
 - cervix
 - uterus
 - adnexa
 - rectal-vaginal septum

II. With respect to the pregnant patient

1. Examine the abdomen identifying the following;
 - symphysis-fundal height measurement
 - assessment of fetal lie, presentation, position and attitude using Leopold's maneuvers
2. Ballotment of the presenting part
3. Auscultation of the fetal heart
4. In early pregnancy assess gestational age on bimanual pelvic examination
5. Examine the pelvis identifying the following;
 - adequacy of the bony pelvis
 - cervical dilatation and effacement
 - fetal position and presentation
 - fetal station
 - status of the membranes

D. Diagnosis and Management Plan

After completing the written history and physical examination, the student will be able to:

1. Generate a problem list, differential diagnosis and plan of management. The plan of management should include the appropriate investigations, treatment, patient education and plans for continuing care of the patient.

E. Well Woman Care Health Promotion and Disease Prevention

The student will be able to:

1. Explain the importance of periodic “well-woman” examinations.
2. Recommend the frequency of periodic health examinations.
3. Recommend proven screening procedures for health promotion and disease prevention.
4. Outline the educational needs of the woman attending for a periodic health examination.

UNIT II

Basic Science

A. Anatomy

The student will be able to:

1. Describe the gross and microscopic anatomy of the following;
 - female genitalia
 - male genitalia
 - breast

B. Embryology

The student will be able to:

1. Describe the normal development of the human embryo from fertilization to the establishment of basic tissues and organ primordia.
2. Describe the differentiation of the urogenital system in the male and female.

C. Physiology

The student will be able to:

1. Describe the cyclic histological and endocrine changes, which occur in the ovary.
2. Outline the control of ovarian function by the hypothalamus and pituitary gland, and describe the effect of ovarian hormones on their end organs.
3. Describe the physiologic and anatomical changes occurring at the onset and cessation of reproductive function in the female.

D. Genetics

The student will be able to:

1. Describe the structure and function of human chromosomes as illustrated by:
 - normal karyotype
 - chromosomal trisomies
 - sex chromosome abnormalities and X-chromosome inactivation
 - rearrangements such as inversions, translocations and nondisjunctions
2. Describe the mechanisms of inheritance involved in:
 - spermatogenesis
 - oogenesis
 - fertilization
3. Explain the following patterns of inheritance:
 - autosomal dominant
 - autosomal recessive
 - x-linked recessive
 - x-linked dominant
 - multi factorial

E. Pharmacology:

The student will be able to:

1. List the pharmacological effects and clinical applications of the following groups of drugs in obstetrics and gynecology:
 - oxytocic agents
 - tocolytic agents
 - steroid hormones
 - protein hormones (e.g. gonadotropins)
 - gonadotropin releasing hormones
 - prostaglandins
 - anti-infective agents
 - analgesics
 - antibiotics
2. Describe the possible deleterious effects of drugs on the fetus as illustrated by:
 - teratogenesis
 - organ damage
 - short-term neonatal problems
 - oncogenesis

F. Anatomical and Physiological Changes in Pregnancy:

The student will be able to:

1. Describe the major anatomical and physiological changes occurring in the pregnant female in all body systems during the pregnancy, labor and puerperium.
2. Describe what is known about the mechanism for onset of labor.
3. Describe the physiology of lactation.

G. Feto-Placental Unit:

The student will be able to:

1. Describe placental anatomy and histology.
2. Explain the principles of placental transfer.
3. Describe the anatomy of the fetal circulation.
4. Describe the cardiovascular function in the fetus and contrast it to that in the newborn.
5. Explain the formation of amniotic fluid and its components.
6. Describe the role of human chorionic gonadotropin, estrogen, progesterone, and human placental lactogen in the endocrine response in pregnancy.
7. Describe the fetal circulatory responses to hypoxia.
8. Describe fetal sleep and activity patterns.

UNIT III

Normal Obstetrics

A. Maternal Physiology

1. The medical student will be able to describe the physiologic changes associated with pregnancy in the following organ systems:
 - cardiovascular system
 - hematologic system
 - respiratory system
 - renal and urinary tract system
 - gastrointestinal system
 - skin
 - musculoskeletal system
 - breasts
 - endocrine system with particular reference to changes in carbohydrate metabolism throughout pregnancy
 - immune system
2. The student will be able to describe the physiologic functions of the placenta and fetus.
3. The student will be able to describe how these maternal physiologic changes result in the common symptoms experienced by pregnant women.
4. The student will be able to recognize the normal changes in laboratory tests that are seen during pregnancy.

B. Psychosocial Issues in Pregnancy:

1. When providing care for the pregnant woman the student will be able to apply their knowledge of normal physiologic changes in pregnancy, and communication skills acquired during their training to:
 1. Discuss the common fears relating to pregnancy, labor and delivery with the pregnant woman.
 2. Identify the special needs of working women, single parents, adolescents, immigrant women and aboriginal women.
 3. Describe how culture, race and religion can affect a woman's experience during her pregnancy.
 4. Discuss issue of sexuality in pregnancy and the puerperium with the pregnant woman.
 5. Assist the pregnant woman where necessary to access assistance for social, financial and emotional support for herself and her child.

C. Antepartum Care:

The student will be able to:

1. Discuss the methods used to diagnose pregnancy and establish gestational age.
2. Describe the methods of initial and on-going risk assessment for the mother to distinguish the normal from the high-risk pregnancy.
3. Advise the patient about issues including the following:
 - early vaginal bleeding
 - nutrition
 - use of prescribed, over-the-counter and illicit drugs
 - use of alcohol
 - use of tobacco
 - sexual and physical activity
 - occupational exposure
 - immunization
 - travel
 - breast feeding
 - circumcision
 - radiation during pregnancy
 - prenatal education
 - genetic testing including amniocentesis and chorionic villous sampling
4. Participate in provision of prenatal education by the physician and community resources.
5. List the appropriate laboratory investigations and be able to interpret them.
6. List the indications for ultrasound and biophysical profile scoring in pregnancy.
7. Describe the signs and symptoms of the onset of labor.
8. Perform the basic technical skills required to provide initial and continuing examination of the pregnant patient including a pelvic examination, cytological screening, and blood pressure monitoring and fundal height measurements.

D. Intrapartum period:

The student will be able to:

1. List the four stages of labor and describe them.
2. Outline the seven mechanisms of normal labor.
3. Describe how to evaluate the strength and timing of uterine contractions.
4. Describe the progress of normal labor in the primiparous and multiparous laboring patient and be able to recognize when the progress is abnormal
5. List the different modes of analgesia and anaesthesia available.
6. Explain the importance of early diagnosis of maternal and fetal complications in labor.
7. Describe the steps in management of normal delivery.
8. Describe the management of the third stage of labor including episiotomy repair and techniques to avoid episiotomy.
9. Recognize and classify obstetric tears as first degree, second degree, third degree and fourth degree.
10. Discuss the principles of family-centered care and the merit of whenever possible respecting the parent's unique desires about their labor and delivery.
11. Give the standards of monitoring in labor, using clinical and electronic monitoring.
12. Describe alternate positions for birth.
13. List the indications for consultation during labor and delivery.

E. Postpartum period

The medical student will be able to:

1. Outline the normal recovery from the physiologic changes of pregnancy.
2. Discuss the importance of breast-feeding and breast care.
3. Describe the normal and abnormal states of postpartum bleeding, pain and fever.
4. Describe the appropriate emotional and social support for the patient and family.
5. Discuss when normal sexual activity can be resumed and counsel regarding and problems commonly encountered.
6. Provide counseling regarding family planning for the post-partum patient.
7. Outline the principles for perineal, bowel and bladder care in the post-partum period.

F. The Normal Newborn:

The student will be able to:

1. Assign an apgar score to the newborn.
2. List the critical steps in providing care for the newborn infant.
3. Perform an examination of the newborn and be able to recognize abnormalities on examination.
4. Discuss the risks and benefits of newborn circumcision.

UNIT IV

Abnormal Obstetrics

A. Complications of Pregnancy

I. First and second trimester bleeding

With respect to:

1. Threatened abortion
2. First and second trimester incomplete abortion
3. First or second trimester intrauterine death (missed abortion)
4. Complete abortion
5. Ectopic pregnancy
6. Septic abortion
7. Gestational trophoblastic disease
8. Incompetent cervix.

The student will be able to:

1. Define the above conditions.
2. Describe the signs and symptoms of each condition.
3. Give the etiology of each condition.
4. Describe the methods used to achieve a diagnosis.
5. Describe emergency and definitive treatments.
6. Discuss the emotional impact of pregnancy loss and the relationship to future pregnancies.

B. Pregnancy and Hypertension

The student will be able to:

1. Define and classify hypertensive disorders in pregnancy.
2. Explain the pathophysiology of hypertensive disorders in pregnancy.
3. Describe the signs and symptoms of these disorders.
4. List the methods to confirm the diagnosis.
5. Discuss the principles of management and follow-up.
6. Describe the maternal and fetal complications, which can occur.
7. Describe the prognosis for subsequent pregnancies.

C. Antepartum Hemorrhage (second and third trimester bleeding)

The student will be able to:

1. Explain the mechanisms of the following causes of third trimester bleeding:
 - placental abruption
 - placenta previa
 - ectropion of the cervix
 - bloody show
 - carcinoma of the cervix
 - vasa previa
2. Describe the appropriate method of investigation for each condition.
3. Describe the appropriate mode of management for each condition.
4. Describe the maternal and fetal outcomes for each condition.

D. Pre-term Labor

The student will be able to:

1. Define pre-term labor.
2. List the criteria necessary to make a diagnosis of pre-term labor.
3. Describe available methods to identify women at high risk for pre-term deliver.
4. Describe methods, which may prevent pre-term delivery in women at high risk for this complication.
5. Outline the management including the possible use of tocolytic agents and corticosteroids.

E. Premature Rupture of the Membranes

The student will be able to:

1. Describe the methods available to confirm the diagnosis of premature rupture of the membranes.
2. Outline the management of premature rupture of the membranes including indications and contraindications for induction of labor.
3. List the maternal and fetal risks associated with premature rupture of the membranes.
4. Describe the management regarding group B hemolytic streptococcus maternal colonization and the prevention of neonatal infection.

F. Isoimmunization

Facing a case of blood incompatibility in the fetus, the student will be able to:

1. Describe the pathophysiology of isoimmunization.
2. List the indications for immunoprophylaxis.
3. Describe the mechanisms of action of immunoprophylaxis.
4. Describe the methods used to detect maternal isoimmunization and determine the severity of fetal disease.
5. Describe the methods of treatment available pre and post natally.

G. Risk Assessment and Evaluation of Pregnancy

The student will be able to:

1. Recognize factors in a woman's lifestyle or personal or family medical history which indicate increased risk of an unfavorable outcome and strategies to ameliorate these factors.
2. Recognize factors in the history and physical examination of the pregnant woman at the first antenatal visit, or which appear during the antenatal period, which indicate an increased risk of an unfavorable outcome for the fetus or mother.
3. Describe the assessment of fetal growth, well being and maturity.
4. Define and discuss the significance of stillbirth rate, neonatal death rate, perinatal death and maternal death rates.
5. Describe the methods of audit used in your community in the assessment and improvement of healthcare delivery, (e.g. perinatal and maternal morbidity and mortality review).

H. Multiple Pregnancy

The student will be able to:

1. List the risks for the mother and fetuses associated with a multiple gestation.
2. Describe the etiology of multiple gestation.
3. List the physiological changes associated with multiple pregnancies.
4. Outline the correct management during the antepartum course, labor and postpartum period.

I. Intrauterine Growth Restriction (IUGR)

The student will be able to:

1. Define intrauterine growth restriction and small for gestational age.
2. Describe the use of the menstrual history and ultrasound to determine the gestation age.
3. List the known etiological factors associated with intrauterine growth restriction.
4. Describe the fetal risks associated with intrauterine growth restriction.
5. List the appropriate ancillary diagnostic tests.
6. Describe the surveillance of fetal growth and well being.
7. Describe how to recognize the difference between symmetrical and asymmetrical types of growth restriction and explain the significance of this distinction.
8. Describe the management of the pregnancy associated with intrauterine growth restriction.
9. Predict the outcome for future pregnancies for specific cases of intrauterine growth restriction.

J. Prolonged Pregnancy

The student will be able to:

1. Define a term pregnancy, pre-term pregnancy and post term pregnancy.
2. Describe the accuracy of methods for gestational dating, using available clinical data, physical examination and ancillary tools.
3. Describe how to evaluate fetal well being in the post term pregnancy.
4. Outline the options for management of the post term pregnancy.

K. Fetal Death

The student will be able to:

1. Describe the clinical and ultrasonographic features leading to the diagnosis of fetal death.
2. Describe the possible emotional reactions of parents and the appropriate physician responses including the conduct of postpartum care in this situation.
3. Discuss the common reactions of physicians to fetal death and techniques for dealing with these feelings.
4. For your own community, list the hospital and community resources available to assist grieving families.
5. Outline the possible etiologies of intrauterine death and the preventative measures for future pregnancies.
6. List the maternal complications associated with fetal death.
7. Describe the methods for pregnancy termination, including their complications.
8. List the investigations to be carried out in situations of fetal death.

L. Congenital Anomalies

The student will be able to:

1. List the risk factors in the history and physical examination of the pregnant patient at her initial visit, which may increase her chances of having a baby with a congenital anomaly.
2. Describe the basic principles of pre-pregnancy counseling, including the options available to a couple after completion of the counseling.
3. List environmental factors in the antepartum period, which could have teratogenic effects on the fetus (maternal disease, substance abuse, infections, drugs, and radiation, etc).
4. Describe the methods of investigation for prenatal detection of congenital anomalies.
5. Discuss the significance of hydramnios and oligohydramnios associated with congenital anomalies.

M. Hyperemesis Gravidarum

The student will be able to:

1. Outline the theories of etiology of nausea and vomiting in pregnancy, including consideration of pregnancy complications associated with increased nausea and vomiting.
2. Describe how to assess the seriousness of the vomiting, including recognition of dehydration.
3. Describe the principles of treatment including fluid replacement, and the use of anti-emetic drugs.

N. Abnormalities of Labor and Delivery

I. The student will be able to:

1. Recognize abnormal patterns of labor and classify them as to whether they are protraction or arrest disorders, in descent or dilatation, and in the latent, or active phase of labor.
2. List the causes of abnormal labor.
3. Describe the factors important in the evaluation of the patient with abnormal labor.
4. List the indications and contra-indications of oxytocin administration.
5. List the indications for operative vaginal delivery and the prerequisites for the application of forceps or a vacuum extractor.
6. List the indications for caesarian section.
7. Describe the risk factors for and clinical presentation of shoulder dystocia and list the maneuvers needed for successful delivery in cases of shoulder dystocia.
8. Describe the patients who are appropriate for trial of labor after caesarian section (VBAC) and compare the advantages and risks of repeat caesarian section with VBAC.
9. Discuss the use of analgesic and anaesthetic techniques in cases of abnormal labor or operative delivery.

II. The student will be able to:

1. Identify the pregnancies where acute or chronic fetal distress is more likely to occur.
2. Describe the features of the biophysical profile score, which would indicate chronic hypoxia.
3. Describe the cord blood gas pattern in an asphyxiated fetus.
4. Define abnormal variability and deceleration patterns in the fetal heart tracing.
5. Outline management of a patient with a fetus in acute distress.
6. Discuss the significance of meconium stained amniotic fluid.
7. Outline the management of the neonate born with meconium stained amniotic fluid.

O. Abnormalities of the Post-Partum Period

I. The student will be able to:

1. List the causes of post-partum hemorrhage.
2. Describe the pre-disposing factors for post-partum hemorrhage.
3. Outline the appropriate management of post-partum hemorrhage.
4. List the impact of complications of this kind on the mother and the baby.

II. The student will be able to:

1. List the symptoms, signs, predisposing factors, appropriate investigations and management of the following post-partum complications:
 - delayed post-partum hemorrhage
 - infections (including endometritis, pelvic abscess formation, infected episiotomy)
 - breast problems (including mastitis, galactoceles)
 - thrombo-embolic disease
2. List the bacteria commonly involved in post-partum infections, suitable antibiotic choices, and their compatibility with breast-feeding.
3. Describe the “post-partum blues” and management of depressive illness in the post-partum period.

P. Medical and Surgical Diseases Affecting Pregnancy

The student will be able to:

1. Describe the alterations in maternal carbohydrate metabolism in pregnancy.
2. Describe the maternal and fetal/neonatal consequences of uncontrolled pre-existing or gestational diabetes, including:
 - congenital anomalies
 - macrosomia
 - hydramnios
 - preterm labor
 - fetal/neonatal and maternal trauma
 - delayed fetal lung maturity
 - neonatal hypoglycemia and hypocalciuria
3. Outline the protocols for routine screening of pregnant women for carbohydrate intolerance and the rationale for such screening.
4. List the risk factors for gestational diabetes and the diagnostic test for the disease.
5. Outline the principles of management including diet, blood sugar monitoring and insulin therapy.
6. Describe the methods of surveillance of the fetus in pregnancies complicated by diabetes.
7. Describe the obstetrical management of the patient with diabetes in pregnancy.

I. With respect to:

- Anemia and hemoglobinopathies
- Cardiac diseases
- Pulmonary diseases

The student will be able to:

1. Describe the important historical, physical and laboratory findings needed for a differential and final diagnosis.
2. Describe the effects of pregnancy on the disease and the effects of the disease on pregnancy.
3. Describe the fetal risks associated with these conditions.
4. Outline the principles of management for pregnancies associated with these conditions.

II. With respect to:

- Urinary tract diseases (infections, calculi, chronic diseases)
- Appendicitis

The student will be able to:

1. Outline the important physical and laboratory findings.
2. Describe the effects of pregnancy on the disease and the effects of the disease on the pregnancy.
3. Describe the teratogenic risks of infection and drugs used for these clinical problems during pregnancy.
4. Outline the principles of management for these clinical problems during pregnancy.

The student will be able to:

1. Describe the consequences of the following infections in pregnancy for the mother and fetus:
 - herpes
 - rubella
 - parvovirus
 - human immunodeficiency virus
 - tuberculosis
 - varicella
 - hepatitis
 - cytomegalovirus
 - toxoplasmosis
 - syphilis
2. In reference to the above infections, describe the important historical, physical and laboratory findings needed for a differential and final diagnosis.
3. Discuss the principles and possible complications of vaccination during pregnancy.
4. In reference to the above infectious diseases, describe the principles of management with reference to the pregnancy.

The student will be able to:

1. List the gastro-intestinal diseases which are specific to pregnancy.
2. Describe how common gastro-intestinal illnesses are altered by pregnancy.
3. Discuss the differential diagnosis and management for jaundice in pregnancy.

The student will be able to:

1. Describe the management of thyroid disease in pregnancy, including the effects on the fetus.

Q. The Newborn

The student will be able to:

1. List the steps in initial assessment of the neonate.
2. Describe the immediate resuscitative measures for a depressed newborn.
3. Interpret cord blood results.
4. Describe management of the neonate if there has been meconium staining of the amniotic fluid.
5. Describe the identification, differential diagnosis, pathophysiology, complications and principles of management of neonatal:
 - hypoglycemia
 - hypothermia
 - infection
 - respiratory problems
 - hyperbilirubinemia

UNIT V

General Gynecology

A. Congenital Lesions

The student will be able to:

1. Describe the diagnostic features and significance of:
 - imperforate hymen
 - anomalies of Mullerian tract development, both vaginal and uterine
2. Gonadal dysgenesis (XO and XY karyotype, mosaic)
3. Define the following terms;
 - cryptomennorrhea
 - hematometra
 - hematosalpinx
 - hematocolpos
 - transverse and sagittal vaginal septum
 - uterus didelphys
 - septate uterus
 - bicornuate uterus
4. List the causes for an undervirilized male and a virulized female newborn.

B. Inflammatory Lesions

I. Lower genital tract lesions

1. Cervix:

The student will be able to:

1. List the causes of a mucopurulent discharge.
2. Describe the normal variations in the appearance of the cervix.
3. Describe the methods of obtaining appropriate cultures in cases of mucopurulent discharge of the cervix.
4. Outline the management of mucopurulent discharge due to:
 - chlamydia
 - gonorrhea
 - ureaplasma urealyticum
 - ectropion.

2. Vagina:

The student will be able to:

1. Describe the physiologic causes of vaginal discharge.
2. Obtain a history for a patient presenting with vaginal discharge, and describe the appropriate physical examination and laboratory examination to establish the diagnosis including the use of saline and potassium hydroxide wet preparations.
3. State the significance of the odor, color, mucosal appearance and pH of vaginal discharge to determine diagnosis.
4. Outline the investigations and therapy for;
 - bacterial vaginosis
 - Trichomonas vaginitis
 - yeast vaginitis
 - human papilloma virus vaginal infections
 - herpes
 - syphilis
 - foreign bodies
 - atrophic vaginitis
 - prepubertal vulvovaginitis

3. Vulva:

The student will be able to:

1. Describe the appropriate history and physical examination for a patient presenting with vulvar symptoms or signs.
2. List the differential diagnosis for vulvar pruritus including local and systemic etiologies, encompassing inflammatory lesions, dermatoses, dystrophy and neoplasia.
3. List the differential diagnosis for ulcerative lesions of the vulva.
4. Describe the appearance of lesions caused by sexually transmitted diseases on the vulva.
5. Outline the investigation and management of vulvar lesions described above.
6. Describe the diagnostic features, etiology and management of Bartholin's gland cysts and abscesses.

II. Upper genital tract lesions

The student will be able to:

1. List the differential diagnosis for pelvic pain.
2. Describe the etiologic factors for pelvic pain.
3. Differentiate the symptoms and physical findings in acute salpingitis, from those in acute appendicitis.
4. Describe the sequelae of acute salpingitis, including tubo-ovarian abscess and chronic salpingitis.
5. List and classify the micro-organisms that may be responsible for acute pelvic inflammatory disease.
6. Describe the diagnostic laboratory and ancillary testing to establish the diagnosis of acute pelvic inflammatory disease.
7. Outline the antibiotic regimes suitable for treatment of mild and moderate or severe pelvic inflammatory disease.
8. Provide patient education regarding prevention of salpingitis.

C. Neoplastic Lesions

I. Gestational trophoblastic disease

The student will be able to:

1. Describe the symptoms and physical examination findings suggestive of gestational trophoblastic disease.
2. Outline the investigations required to diagnose and manage this condition.
3. Discuss the principles of management and follow-up in these patients.
4. List the theories regarding the etiology of gestational trophoblastic disease.

D. Pre-invasive and Invasive Carcinoma of the Cervix

The student will be able to:

1. Perform a Papinicolaou smear with adequate sampling of the endocervix and ectocervix, including proper preparation and labeling of the smear.
2. Discuss the importance of cytologic screening in the prevention of invasive cervical cancer.
3. Discuss the limitations of the Pap smear as a screening procedure.
4. Outline the frequency of testing indicated for the population.
5. Describe the classification of the abnormal Pap smear.
6. Outline the management for each of the classifications of the abnormal pap smear including:
 - indications for colposcopy with directed biopsy
 - ablation involving laser
 - cryotherapy
 - electro cautery
 - cone biopsy
 - hysterectomy.
7. List the epidemiologic factors associated with increased risk for cervical dysplasia.
8. Outline the clinical staging system for invasive carcinoma of the cervix.
9. Describe the natural history of invasive carcinoma of the cervix, including the influence of the pathology of the cervical cancer.
10. Describe the principles of management of invasive cervical carcinoma including:
 - radiation therapy
 - surgery
 - chemotherapy.

E. Endometrial Cancer

The student will be able to:

1. Define post-menopausal bleeding and provide a differential diagnosis.
2. Describe techniques to obtain a histologic sample of the uterine cavity.
3. Give the rationale for performing a fractional D and C.
4. List the risk factors for development of endometrial cancer.
5. Outline the staging system for endometrial cancer and discuss its significance.
6. Describe the pathology for adenocarcinoma of the uterus and list the other pathologic types of cancer of the uterus.
7. Describe the principles of surgical, radiation and hormonal therapies for endometrial cancer.

F. Ovarian Neoplasms

The student will be able to:

1. Describe a histopathologic classification for both benign and malignant ovarian tumors.
2. Outline the staging system for carcinoma of the ovary.
3. Discuss the differential diagnosis for an adnexal mass in an adolescent or young adult and in a peri-menopausal woman.
4. Describe how the investigation and surgical management would differ in these two women and explain why.
5. Outline a plan of management for epithelial ovarian cancer.
6. Describe the natural history for epithelial ovarian cancer.

G. Functional Ovarian Cysts

The student will be able to:

1. Explain the physiologic basis for the development of functional ovarian cysts.
2. Describe the clinical presentation of these cysts.
3. Describe the investigations used to differentiate these cysts from complications of pregnancy and other ovarian neoplasms.
4. Outline expectant management of the functional ovarian cyst and indicate when they should be managed surgically.

H. Malignant and Pre-Malignant Diseases of the Vulva

The student will be able to:

1. List the indications for and describe the procedure for vulvar punch biopsy.
2. Describe the classification for vulvar intra epithelial neoplasias and outline their management.
3. Describe the classification of vulvar dystrophies and their investigations and management.
4. Outline the clinical staging system for invasive carcinoma of the vulva and discuss its significance.
5. Describe the symptoms and clinical course of untreated disease.
6. Discuss the principles of management of invasive vulvar carcinoma.

I. Uterine Leiomyomata (fibroids)

The student will be able to:

1. Describe the symptoms and physical findings associated with uterine fibroids.
2. Describe the methods to confirm the diagnosis of uterine fibroids.
3. Discuss the indications for medical therapy, myomectomy and hysterectomy.
4. Describe the complications that may arise during pregnancy or prior to conception.
5. State the incidence of malignancy occurring in uterine fibroids.

J. Pelvic Relaxation and Urogynecologic Problems in the Female

The student will be able to:

1. Describe the symptoms, signs, differential diagnosis, ancillary tests and possible therapies for urinary incontinence.
2. List the etiologic factors which predispose to this condition.
3. Provide patient education and instruction regarding:
 - pelvic exercise
 - role of hormone replacement therapy
 - use of pessaries
 - drugs with action on bladder function
 - appropriate referrals as necessary.
4. Define the following forms of pelvic relaxation and name the appropriate corrective operative measure for each;
 - cystocele
 - rectocele
 - enterocele
 - uterine descensus (prolapse)
 - post-hysterectomy vault prolapse
5. List the differential diagnosis for:
 - intermittent incontinence
 - continuous incontinence.
6. Describe the tests routinely used to evaluate urinary incontinence including:
 - cystometrogram
 - urethral pressure profile
 - uroflowmetry
 - electromyography
 - radiographic voiding cystourethrogram.
7. Outline the diagnosis and management of urinary tract infections including:
 - symptoms and signs
 - microbiology
 - therapy
 - prevention

K. Perimenstrual Disorders

I. Dysmenorrhea

The student will be able to:

1. Define primary and secondary dysmenorrhea.
2. List the causes for secondary dysmenorrhea.
3. Explain the pathophysiology for primary and secondary dysmenorrhea.
4. Outline a course of investigation and management for dysmenorrhea, including the differentiation between primary and secondary dysmenorrhea.

II Premenstrual Syndrome

The student will be able to:

1. Describe the symptoms and signs in a patient with PMS.
2. List the differential diagnosis for a patient presenting with suspected premenstrual syndrome.
3. Describe a method for recording the symptomatology of a patient.
4. Outline a plan of management for a patient which may include:
 - explanation
 - stress management
 - diet
 - exercise
 - medication.

III Abnormal Uterine Bleeding

The student will be able to:

1. List the specific causes for abnormal uterine bleeding including: pregnancy and its complications including;
 - abortion
 - ectopic gestation
 - trophoblastic disease tumors including carcinoma of the cervix and endometrium, polyps of the cervix and endometrium, endometrial hyperplasia, uterine fibroids, adenomyosis, and endometriosis, hormone producing tumors of the ovary
 - inflammation and trauma including endometritis, intra-uterine devices, tuberculosis
2. Define dysfunctional uterine bleeding.
3. Define the following terms;
 - menorrhagia
 - polymenorrhea
 - metrorrhagia
 - hypomenorrhea
 - oligomenorrhea
 - primary amenorrhea
 - secondary amenorrhea
4. Describe the physiology of the disturbance of the normal menstrual pattern, which is seen in dysfunctional uterine bleeding.
5. Outline the approach to the evaluation and diagnosis of abnormal uterine bleeding, stating the difference in approach based on age (adolescence, reproductive years, menopause and post menopause).

L. Endometriosis and Adenomyosis

I. Endometriosis

The student will be able to:

1. Describe the symptoms and physical findings suggestive of endometriosis.
2. List the theories of pathogenesis of endometriosis.
3. List the common sites of endometrial implants and describe their pathologic appearance.
4. Describe the diagnostic methods used to confirm a diagnosis of endometriosis.
5. Discuss the relative risks and benefits of medical and surgical treatment for endometriosis.

II. Adenomyosis

The student will be able to:

1. Describe the symptoms and signs suggestive of adenomyosis.
2. Describe the pathologic features of adenomyosis.
3. Outline the methods of management of adenomyosis.

M. The Climacteric

The student will be able to:

1. Describe the physiologic changes in the hypothalamic-pituitary-ovarian axis which occur in menopause.
2. List the symptoms, signs and health risks associated with these physiologic changes.
3. Outline methods of management including hormone replacement therapy, and therapy directed to maintenance of trabecular bone.
4. List the indications and contra-indications for hormone replacement therapy.
5. List the options available for hormone replacement therapy.
6. Counsel a patient regarding the risks and benefits of hormone replacement therapy.
7. Discuss the psycho social effects which may occur for an individual menopausal patient.

N. Pediatric and Adolescent Gynecology

The student will be able to:

1. List the differential diagnosis for vaginal bleeding in a prepubertal female and outline how a diagnosis would be made, including the indications for a vaginal inspection.
2. List the differential diagnosis for vaginal discharge in a prepubertal female and describe how to obtain cultures for the patient where indicated.
3. Identify the situations where sexual abuse may be suspected and outline the reporting and investigation protocols for your own community.
4. Label on a diagram of prepubertal female the following anatomic structures:
 - clitoris
 - labia majora
 - labia minora
 - posterior fourchette
 - fossa navicularis
 - hymen (crescentic, circumferential and cribriform)
 - urethra
 - peri-urethral pillars
 - perineal body
 - perianal area
5. Describe indications for and technique of examination of the genitalia in prepubertal females.
6. Describe the contents of an adolescent medical history, including a sexual and social history, which would illustrate risk factors for adverse outcomes.
7. Counsel an adolescent requesting confidential family planning.

O. Sexually Transmitted Diseases

The student will be able to:

1. List the specific infectious agents, which are sexually transmitted and state their prevalence in the local community.
2. Describe the presenting syndromes for the sexually transmitted diseases including;
 - mucopurulent cervicitis
 - adnexal pain and/or masses
3. Systemic manifestations including;
 - skin lesions
 - arthritis
 - peri-hepatitis
 - acquired immune deficiency syndrome
4. Describe the principles of diagnosis and management of sexually transmitted diseases, including the requirements to report certain diseases and the effects of reporting.
5. Identify the risk factors for acquiring a sexually transmitted disease.
6. Counsel an individual patient regarding behavioral modifications to reduce the risk of acquiring a sexually transmitted disease and methods of preventing transmission.
7. Discuss the psychosocial impact of sexually transmitted diseases on a woman and her partner.

UNIT VI

Gynecologic Endocrinology

A. Amenorrhea and Dysfunctional Uterine Bleeding

The student will be able to:

1. Describe the normal functions and interactions of the endocrine components of the hypothalamic-pituitary-ovarian axis, which brings about the normal menstrual cycle.
2. Define primary and secondary amenorrhea and a list of differential diagnoses for each.
3. Divide the causes for amenorrhea according to the site at which the abnormality is occurring; at the level of the hypothalamus, the pituitary, the ovary, and the endometrium.
4. Outline the principles of investigation and management of these abnormalities, according to the patient's desire for pregnancy.
5. Outline the principles of investigation and management for;
 - ovulatory dysfunctional uterine bleeding
 - anovulatory dysfunctional uterine bleeding.

B. Normal Pubertal Development and its Abnormalities

The student will be able to:

1. Outline normal pubertal development, stating the normal age ranges and sequences for thelarche, pubarche and menarche.
2. Describe Tanner staging of puberty.
3. Define precocious puberty, differentiating central causes from other causes.
4. Describe the etiology of precocious puberty.
5. Outline the principles of investigation and management of precocious puberty.
6. Define delayed puberty.
7. Describe the etiology of delayed puberty (with gonadal failure and without gonadal failure).
8. Outline the principles of investigation and management of delayed puberty.

C. Hirsutism and Virulization

The student will be able to:

1. Describe normal variations in hair distribution and recognize abnormal patterns.
2. Define hirsutism and virulization.
3. List the causes of elevated circulating androgen levels.
4. Outline the principles of investigation and management of hirsutism and virulism.

D. Hyperprolactinemia

The student will be able to:

1. List the causes of hyperprolactinemia (physiological, pharmacological and pathological).
2. Outline the appropriate investigation for pathological hyperprolactinemia.
3. Describe the treatment for hyperprolactinemia.

E. Premature Gonadal Failure

The student will be able to:

1. Describe the etiology of premature ovarian failure.
2. Describe the signs, symptoms and laboratory diagnosis of ovarian failure.
3. Outline the treatment for premature ovarian failure, including the risk and benefits of hormone replacement therapy and the issue of infertility.

UNIT VII

Sexuality and Sexual Assault

A. Sexuality

The student will be able to:

1. Describe the physiology of the normal male and female sexual response.
2. Obtain a sexual history from a patient.
3. Identify the modifications in the sexual response that can occur as a result of;
 - pubertal changes
 - after initiation of sexual activity
 - with contraception
 - with concern about sexually transmitted diseases
 - during pregnancy and the puerperium
 - with menopause
 - after gynecologic surgery and malignancy
 - with infertility
4. Identify the factors in the student's own sexuality that may influence his/her perception and management of patients.
5. Identify the clinical situations where a sexual history is appropriate.
6. Recognize after a history and physical examination the following common problems in sexuality such as;
 - ejaculatory dysfunction
 - orgasmic dysfunction
 - dyspareunia
 - erectile dysfunction
 - vaginismus
7. Outline the principles of sexual counseling.
8. Contrast the sexual behavior patterns and social issues of people who are;
 - heterosexual
 - homosexual
 - bisexual
 - transgender

B. Sexual Assault and Domestic Abuse

The student will be able to:

1. Describe the appropriate examination, reporting and documentation of patients who have suffered sexual assault as well as the preservation of possible evidence for patients who state they have experienced a sexual assault and would like to pursue charges against the offender.
2. Describe the short and long term physical and emotional consequences of sexual assault.
3. List the appropriate medical investigations and forensic investigations to be done, given patient consent.
4. Outline a plan of management for the immediate and long term medical treatment and counseling of the patient and her family.
5. Identify, evaluate and provide assistance to the patient who is a victim of domestic abuse, using the following critical steps;
 - asking during history taking if abuse is present
 - evaluating any barriers to disclosure or seeking help
 - providing supportive clinical care
 - documentation of the abuse
 - evaluating the risk to the patient and her family
 - providing education regarding the dynamics of abuse and assistance available.
 - providing follow-up

UNIT VIII

Fertility and Fertility Control

A. Infertility

The student will be able to:

1. Define infertility.
2. Obtain a relevant history from a couple presenting with infertility.
3. Outline a logical plan of investigation and management in a couple who present with infertility.
4. Describe the emotional, psychological and cultural implications of infertility for the couple with infertility and the role of counseling.
5. Outline the etiology, investigations, therapy and complications of therapy in;
 - male factor infertility
 - disorders of ovulation
 - tubo-peritoneal factor
 - endometriosis
 - unexplained infertility
6. Describe the new reproductive technologies such as IVF, gamete donation, ICSI, their applications, limitations, and complications.

B. Recurrent Pregnancy Loss (RPL)

The student will be able to:

1. Define recurrent pregnancy loss.
2. Describe the etiology of recurrent pregnancy loss with reference to the following factors;
 - genetic
 - uterine
 - hormonal disorders
 - infections
 - systemic diseases
 - immunologic diseases.
3. Outline the appropriate investigations for habitual abortion.
4. Describe the emotional impact and importance of counseling in a couple who present with recurrent pregnancy loss.
5. Outline the role of medical and surgical treatment in recurrent pregnancy loss.

C. Fertility Control

The student will be able to:

1. Describe the mode of action, theoretic and use effectiveness, advantages, disadvantages, contra- indications, and complications of the following reversible methods of contraception;
 - abstinence, coitus interruptus, and rhythm
 - chemical and barrier methods
 - oral contraceptives
 - intrauterine contraceptive devices
 - post-coital contraceptive techniques.
2. Provide contraceptive counseling to a patient, including information about the various contraceptive options.

D. Sterilization

The student will be able to:

1. Describe the available methods of male and female sterilization.
2. Discuss the advantages, disadvantages, contra-indications, effectiveness and reversibility of these techniques.
3. Discuss the medical and medico-legal consequences of these procedures.

E. Therapeutic Abortion

The student will be able to:

1. Counsel a pregnant woman regarding the range of option available to her including adoption, therapeutic abortion or proceeding with the pregnancy and keeping the child, in situations where the pregnancy is unplanned or unwanted.
2. List the indications for therapeutic abortion.
3. Describe the methods for therapeutic abortion.
4. List the potential complications of the procedure.
5. Discuss the importance of counseling and follow-up, as well as provision of future fertility control.

UNIT IX

Medical - Legal Issues

A. Doctor- Patient Relationship

The student will be able to:

1. Describe the expectations of the doctor and the patient of each other.
2. Describe the legal basis of the expectations within the doctor-patient relationship.
3. Define the doctor's duty to provide care.
4. Describe the requirement to maintain confidentiality of care.

B. Consent

The student will be able to:

1. State the law as it relates to consent for care including;
 - provision of information necessary for the patient to make an informed decision and give or withhold consent.
 - Circumstances in which the individual cannot give such consent such as young age, diminished ability to comprehend and exceptions to the usual requirement for consent such as medical emergencies.

C. Standard of Care and Liability

The student will be able to:

1. Describe the standard of care expected in patient management.
2. Outline the requirements for establishment of legal liability including;
 - duty to provide care
 - dereliction of duty
 - damages to the patient
 - causation
3. Describe the application of civil and criminal law, and the concepts of negligence and battery
4. State the importance of documentation of care.
5. Recognize the medical record as a clinical and as a legal document.

D. Mandatory Reporting

The student will be able to:

1. List the requirements for mandatory reporting which include the following exceptions to the usual requirement for confidentiality;
 - the duty to report a reasonable suspicion of child abuse
 - the requirement to report the existence of some sexually transmitted diseases.
 - the duty to report spousal abuse in some provinces.

E. Special Legal Requirements Relating to Fertility Control

The student will be able to:

1. Outline his/her responsibilities to provide confidential family planning when required by a minor.
2. Outline the legal aspect of obtaining consent for sterilization.
3. Outline the legal aspects of providing an abortion for a patient.

UNIT X

Skills in Obstetrics and Gynecology

A. Gynecology

The student will be able to:

1. Obtain a gynecological history and perform a gynecological examination including the use of a vaginal speculum.
2. Obtain appropriate cultures from the cervix and vagina and prepare and interpret a wet smear specimen.
3. Prepare a cytological specimen from the cervix or vagina.
4. Provide advice and instruction concerning suitable methods of contraception.

B. Obstetrics

The student will be able to:

1. Take an obstetric history and perform an obstetrical examination at all stages of pregnancy.
2. Apply risk assessment protocols.
3. Diagnose the onset of labor, assess progress in labor, and recognize significant deviations from normal.
4. Perform fetal heart rate monitoring and recognize signs of fetal distress.
5. Perform a normal spontaneous vaginal delivery under supervision.
6. Perform an episiotomy and repair tear or episiotomy under supervision.
7. Carry out the initial assessment and management of the healthy newborn.

C. Communication

The student will be able to:

1. Describe in a language that will be understood by the patient, the indications, contra-indications, risks, and nature of the following procedures;

I Obstetrical

- ultrasonography
- maternal serum screen
- amniocentesis
- chorionic villus sampling
- analgesia for labor
- induction of labor
- spontaneous vaginal delivery
- vacuum assisted and forceps delivery
- episiotomy
- cesarean section
- neonatal circumcision

II Gynecologic

- dilatation and curettage
- colposcopy and cervical biopsy
- endometrial biopsy
- cone biopsy
- culdocentesis
- hysterosalpingogram
- hysterectomy
- pregnancy termination
- vulvar biopsy
- cryotherapy
- cervical laser vaporization