



SYLLABUS AND CURRICULUM OF PG DIPLOMA IN OBST. & GYNE. COURSE

PG DIPLOMA IN OBSTETRICS & GYNECOLOGY (PGDOG)

PG Diploma in Obstetrics & Gynecology (PGDOG) is designed to provide **advanced theoretical knowledge and practical skills** in women's health, pregnancy management, childbirth procedures, reproductive physiology, and gynecological disorders.

The program prepares students to work in **hospitals, maternity homes, fertility clinics, diagnostic centres, and community health settings.**

Course Overview

- **Full Form: PG DIPLOMA IN OBSTETRICS & GYNECOLOGY (PGDOG)**
- **Duration: 1 Year + 6 Months (Internship)**
- **Eligibility:**
 - Candidates must have completed **MBBS from a recognized medical university/institution.**
 - Candidates who have completed **BAMS / BHMS / BUMS or equivalent medical qualification from a recognized institution** may also be eligible to apply.
 - Minimum 45-50% marks

Career Opportunities after P G D O G

- **Obstetrics & Gynecology Assistant**
- **Maternity Care Assistant**
- **Labour Room Assistant**
- **Gynecology OPD Assistant**
- **Ultrasound Assistant**
- **IVF clinic assistant**
- **Women Health Care Assistant**
- **Community Maternal Health Worker Assistant**



SEMESTER – I

PAPER CODE	SUBJECT NAME	THEORY HOURS	PRACTICAL HOURS	THEORY MARKS	PRACTICAL MARKS
PGOG101	ANATOMY & PHYSIOLOGY OF FEMALE REPRODUCTIVE SYSTEM	45 Min	1 Hrs.	50	50
PGOG102	OBSTETRICS COMPLICATIONS	45 Min	1 Hrs.	50	50
PGOG103	INFERTILITY & FAMILY PLANNING	45 Min	1 Hrs.	50	50
PGOG104	ULTRASOUND & IMAGING IN OBSTETRICS & GYNECOLOGY	45 Min	1 Hrs.	50	50

ANATOMY & PHYSIOLOGY OF FEMALE REPRODUCTIVE SYSTEM

THEORY

UNIT 1: Introduction to Female Reproductive System

1.1 Overview

- Definition and scope
- Functions of the reproductive system
- Growth & development of reproductive organs

1.2 General Concepts

- Puberty: physical & physiological changes
- Menarche and menstrual health
- Sexual maturity rating (Tanner stages)

UNIT 2: External Genitalia (Vulva)

2.1 Vulva – Structures

- Mons pubis
- Labia majora
- Labia minora
- Clitoris
- Vestibule
- Hymen
- Bartholin's glands
- Skene's glands



2.2 Applied Anatomy

- Bartholin cyst
- Vulvovaginitis
- FGM overview
- Episiotomy site and relevance

UNIT 3: Internal Genital Organs

3.1 Vagina

- Structure, layers, and blood supply
- Functions: intercourse, childbirth, menstrual flow
- Vaginal flora (Lactobacillus)
- Vaginitis types

3.2 Uterus

- Location, size, shape
- Parts: fundus, body, cervix
- Layers: perimetrium, myometrium, endometrium
- Blood supply and lymphatic drainage
- Functions in menstruation, pregnancy, labour

3.3 Cervix

- External & internal os
- Cervical mucus changes
- Cervical cancer screening basics (Pap smear)

3.4 Fallopian Tubes

- Parts: fimbriae, ampulla, isthmus, uterine part
- Ciliary movement
- Fertilization site
- Tubal blockage & ectopic pregnancy basics

3.5 Ovaries

- Structure and location
- Folliculogenesis
- Ovarian hormones – estrogen, progesterone
- Corpus luteum formation and function

UNIT 4: Pelvic Cavity & Support Structures

4.1 Pelvic Bones & Pelvic Floor

- Pelvis anatomy
- True & false pelvis



- Levator ani muscles
- Perineum

4.2 Ligaments of the Reproductive System

- Broad ligament
- Round ligament
- Uterosacral ligament
- Cardinal ligament

4.3 Blood Supply, Nerve Supply & Lymphatics

- Uterine artery
- Ovarian artery
- Venous drainage
- Autonomic innervation
- Lymphatic drainage patterns

UNIT 5: Physiology of Reproduction

5.1 Menstrual Cycle

- Ovarian cycle:
 - Follicular phase
 - Ovulation
 - Luteal phase
- Endometrial cycle:
 - Proliferative phase
 - Secretory phase
 - Menstrual phase
- Hormonal regulation (FSH, LH, estrogen, progesterone)

5.2 Ovarian Function

- Follicle development
- Ovulation mechanism
- Role of corpus luteum

5.3 Uterine Physiology

- Cyclical changes
- Implantation preparation

UNIT 6: Fertilization & Early Development

- Gametogenesis (basic overview)
- Sperm transport
- Ovum transport
- Fertilization steps
- Formation of zygote



- Blastocyst implantation
- Placenta initiation

UNIT 7: Physiology During Pregnancy

- Confirmatory signs of pregnancy
- Maternal physiological changes
 - Cardiovascular
 - Respiratory
 - Renal
 - Endocrine
 - Breast changes
- Uterine growth
- Placenta formation & functions
- Amniotic fluid formation & functions
- Fetal circulation basics

UNIT 8: Physiology of Labour & Lactation

8.1 Labour

- Definition and stages of labour
- Uterine contractions
- Role of hormones (oxytocin, prostaglandins)
- Cervical dilation

8.2 Lactation

- Mammary gland anatomy
- Hormonal control (prolactin, oxytocin)
- Milk ejection reflex
- Colostrum & mature milk differences

UNIT 9: Common Clinical Conditions (Basic Theory)

- PCOS (basic physiology)
- Endometriosis
- Uterine fibroids
- Menopause & hormonal changes
- Dysmenorrhea
- Amenorrhea

UNIT 10: Diagnostic Approaches in Female Reproductive System

- Pelvic examination basics
- Pap smear procedure
- Transabdominal & transvaginal ultrasound basics
- Hormone profile tests
- Colposcopy (introductory)



PRACTICAL

➤ **Identification of Models, Charts & Specimens**

❖ **Female Reproductive Anatomy Models**

- External genitalia model (vulva)
- Internal genital organ model
- Vagina – structure & layers
- Uterus (fundus, body, cervix)
- Fallopian tubes (fimbriae, ampulla, isthmus)
- Ovaries & follicles
- Pelvic bones model
- Pelvic floor muscles model

❖ **Charts**

- Menstrual cycle chart
- Uterine layers chart
- Ovarian follicle development chart
- Fertilization & implantation chart
- Placenta & fetal membrane chart
- Fetal development stages

➤ **Microscopy & Histology (Observation-Level Practical)**

- Vaginal smear (normal flora)
- Uterus – endometrium (proliferative & secretory phase)
- Ovary – Graafian follicle
- Placental villi
- Breast tissue lactating vs. non-lactating (optional)

➤ **Demonstration of Clinical Examination Skills**

❖ **General Examination**

- Recording vitals: BP, HR, PR, RR
- Height, weight, BMI
- Signs of anemia
- Breast examination basics

❖ **Abdominal Examination (Obstetric Relevance)**

- Inspection
- Palpation (fundal height basic)
- Fetal pole identification (model-based)
- Auscultation of fetal heart sounds (Demo only)

❖ **Pelvic Examination (Model-Based Only)**

Students learn:



- Conduct of pelvic exam on mannequin
- Identification of cervix & fornices
- Uterus position (anteverted, retroverted models)
- Vaginal wall support defects (prolapse model demonstration)

➤ **Instrumentation in Obstetrics & Gynecology**

Students must **identify, handle, and explain uses of:**

Gynecology Instruments

- Cusco's speculum
- Sims speculum
- Uterine sound
- Uterine dilator
- Tenaculum
- Vulsellum
- Sponge holding forceps
- Cervical biopsy forceps
- Ovum forceps

Obstetric Instruments

- Fetal skull + pelvis models
- Obstetric forceps (theory only)
- Vacuum extractor parts (theory only)
- Cord clamp & scissors
- Episiotomy scissors
- Baby weighing scale
- Neonatal suction device (bulb)

➤ **Demonstrations Related to Reproductive Physiology**

❖ **Menstrual Cycle**

- Charting menstrual cycle phases
- Hormonal changes explanation
- Observation of menstrual calendar model

❖ **Ovulation & Fertilization**

- Animation/model demonstration
- Ovulation test kit demonstration (optional)

❖ **Placenta & Fetal Circulation**

- Identification of placenta model
- Umbilical vessels
- Fetal circulation pathway demonstration

➤ **Obstetric & Gynecological Procedures (Demo + Supervised Practice)**

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❖ **Specimen Collection**

- High vaginal swab (HVS) procedure (demo only)
- Pap smear collection using Ayre's spatula (dummy practice)
- Urine sample collection for pregnancy test

❖ **Basic Laboratory Demonstrations**

- Pregnancy test (urine card test)
- Blood test charts: LH, FSH, estrogen, progesterone profiles

❖ **Basic OT Preparation (Gynae Minor Procedures)**

- Preparing D&C tray (demo)
- Assisting in gynecology procedures (observation-based)
- Identifying sterilized instruments

➤ **Skills in Labour & Delivery Physiology**

❖ **Pelvic Anatomy & Fetal Head Engagement**

- Pelvic inlet & outlet dimensions
- Fetal positions & presentations
- Mechanism of labour (model demonstration)

❖ **Stages of Labour**

- Changes in cervix
- Station of head
- Partograph chart reading (practice)

➤ **OSCE (Objective Structured Clinical Examination) Skills**

- Identify uterine parts on model
- Identify menstrual cycle phase from chart
- Demonstrate Pap smear procedure on mannequin
- Identify gyne instruments
- Demonstrate fundal height measurement (on dummy)
- Identify fetal skull landmarks
- Read partograph correctly

OBSTETRICS COMPLICATIONS

THEORY

OBSTETRIC COMPLICATIONS

UNIT 1: Introduction to Obstetric Complications

- Definition of obstetric complications



- Importance in maternal & fetal health
- Risk assessment in pregnancy
- High-risk pregnancy: definition & classification
- Early detection & referral system

UNIT 2: Early Pregnancy Complications

2.1 Abortions

- Types: threatened, inevitable, incomplete, complete, missed
- Causes & symptoms
- Diagnosis & management
- Septic abortion (basics)

2.2 Ectopic Pregnancy

- Definition & sites
- Risk factors
- Signs & symptoms
- Diagnosis (UPT, USG)
- Emergency management overview

2.3 Hyperemesis Gravidarum

- Causes
- Symptoms
- Dehydration & ketosis
- Management

2.4 Molar Pregnancy / GTD Basics

- Hydatidiform mole – signs & complications
- Diagnosis (USG, β -hCG)
- Follow-up basics

UNIT 3: Medical Disorders Affecting Pregnancy

3.1 Hypertensive Disorders

- Gestational hypertension
- Preeclampsia (mild & severe)
- Eclampsia
- HELLP syndrome basics

3.2 Diabetes in Pregnancy

- GDM – risk factors, screening, management
- Effects on mother & fetus

3.3 Anemia



- Types: iron deficiency, megaloblastic
- Effects on pregnancy
- Management

3.4 Thyroid Disorders

- Hypothyroidism
- Hyperthyroidism
- Screening & effects on fetus

3.5 Cardiac Diseases in Pregnancy

- Basic understanding
- Warning signs
- Management principles

3.6 Respiratory Disorders

- Asthma in pregnancy
- Pulmonary edema basics

UNIT 4: Antepartum Complications

4.1 Antepartum Hemorrhage (APH)

- Placenta previa
- Abruptio placentae
- Vasa previa basics
- Diagnosis & emergency care

4.2 Premature Rupture of Membranes (PROM/PPROM)

- Definition
- Risk factors
- Complications
- Management

4.3 Intrauterine Growth Restriction (IUGR)

- Types
- Causes
- Diagnosis
- Fetal monitoring

4.4 Polyhydramnios & Oligohydramnios

- Definitions
- Causes
- Maternal & fetal risks
- USG findings



4.5 Rh Isoimmunization

- Rh incompatibility basics
- Prevention (Anti-D)
- Fetal risks

UNIT 5: Intrapartum (During Labour) Complications

5.1 Abnormal Labour

- Prolonged labour
- Obstructed labour
- Precipitate labour
- Dysfunctional labour

5.2 Malpresentations & Malpositions

- Breech
- Face & brow
- Shoulder presentation
- Occipito-posterior

5.3 Cord Problems

- Cord prolapse
- Cord presentation
- Nuchal cord basics

5.4 Fetal Distress

- Causes
- CTG monitoring basics
- Immediate management

5.5 Amniotic Fluid Embolism (AFE) – Intro

- Signs
- Emergency response

UNIT 6: Delivery Complications

6.1 Preterm Labour

- Causes
- Diagnosis
- Prevention & management

6.2 Post-term Pregnancy

- Risks



- Induction indications

6.3 Shoulder Dystocia

- Recognition
- Maternal & fetal risks
- Maneuvers overview

6.4 Complications of Operative Vaginal Delivery

(Forceps/Vacuum – theory only)

- Indications & risks
- Maternal trauma
- Fetal injuries

UNIT 7: Postpartum Complications

7.1 Postpartum Hemorrhage (PPH)

- Primary & secondary
- Causes (4 Ts)
- Uterine atony
- Atony management
- Shock management basics

7.2 Puerperal Sepsis

- Causes
- Symptoms
- Prevention
- Management

7.3 Postpartum Depression

- Signs
- Early identification

7.4 Thromboembolic Disorders

- DVT basics
- Risk factors in postpartum

UNIT 8: Fetal Complications

8.1 Fetal Growth Abnormalities

- IUGR & LGA
- Consequences



8.2 Congenital Anomalies

- Causes
- Types
- Screening tests

8.3 Prematurity Complications

- RDS
- NEC
- Jaundice
- Feeding issues

8.4 Intrauterine Fetal Death (IUFD)

- Causes
- Diagnosis
- Grief support

UNIT 9: Diagnostic Approach to Obstetric Complications

- USG in obstetric complications
- Doppler studies
- NST, CTG basics
- Blood investigations
- Urine investigations
- High-risk pregnancy charting

UNIT 10: Emergency Management in Obstetrics

- First-line response in obstetric shock
- Emergency drugs (oxytocin, MgSO₄ basics)
- Stabilization & referral protocol
- Maternal resuscitation basics
- Safe transport of obstetric patients

PRACTICAL

➤ Identification of Instruments, Models & Charts

❖ Obstetric Models

- Pelvic model
- Fetal skull model
- Placenta & cord model
- Breech presentation model
- Shoulder dystocia model
- Multiple pregnancy model
- Placenta previa & abruption charts
- Oligohydramnios / polyhydramnios chart



❖ **Practical Charts**

- Partograph chart
- CTG / NST strip interpretation basics
- High-risk pregnancy chart
- APH & PPH flowchart
- MgSO₄ regimen chart

➤ **Clinical Examination Skills**

❖ **Antenatal Examination**

- Vitals recording
- Edema grading
- Fundal height measurement
- Abdominal palpation in high-risk pregnancy
- Fetal heart rate monitoring

❖ **Danger Signs in Pregnancy**

❖ **Obstetric Palpation in Complications**

- Breech identification
- Transverse lie
- OP position recognition
- Polyhydramnios / oligohydramnios assessment (model)

➤ **Diagnostic Skills (Model + Chart Practice)**

❖ **Partograph Interpretation**

- Identify labour abnormalities
- Slow progress, prolonged labour
- Fetal distress on partograph

❖ **CTG (Cardiotocography) Basics**

- Normal CTG
- Late decelerations
- Tachycardia
- Variability changes

❖ **USG Report Interpretation (Demo Level)**

- Low-lying placenta
- IUGR
- AFI interpretation
- Twin pregnancy basic findings

➤ **Emergency Management Skills (Drills & Simulations)**

❖ **PPH Emergency Drill**

- Uterine massage



- Uterotonic drugs (demo)
- Estimation of blood loss
- Shock management basics
- Uterine balloon tamponade model demonstration

❖ **Eclampsia Drill**

- Identify signs (case-based)
- MgSO₄ preparation & administration (dummy vials)
- Monitoring reflexes & urine output
- Positioning of patient
- Emergency referral steps

❖ **APH Emergency Response**

- Placenta previa vs. abruption differentiation
- Initial resuscitation
- Managing bleeding

❖ **Shoulder Dystocia Drill (Model)**

- Recognition on dummy
- McRoberts maneuver
- Suprapubic pressure
- Delivery of posterior arm (discussion only)

❖ **Cord Prolapse Drill**

- Immediate actions
- Relieving pressure on cord (demo)
- Emergency transfer technique

➤ **Management of Specific Obstetric Complications (Simulation)**

❖ **Preterm Labour**

- Tocolytics basics
- Steroid injection simulation (dummy)
- Monitoring contractions

❖ **PROM/PPROM**

- Sterile speculum on mannequin
- Amniotic fluid assessment demo

❖ **Hypertensive Disorders**

- BP monitoring
- Proteinuria test demonstration
- Recognition of severe features



❖ **Diabetes in Pregnancy**

- Glucometer use
- GDM diet chart creation

➤ **Obstetric Procedures**

❖ **Assisted Deliveries**

- Vacuum extraction model introduction
- Forceps parts identification
(*No hands-on delivery; only demonstration*)

❖ **Episiotomy & Perineal Care**

- Episiotomy model demonstration
- Perineal repair steps (theory only)
- Perineal care post-delivery

❖ **Newborn Care in Complicated Labour**

- NRP basics
- Neonatal suction
- APGAR scoring
- Immediate NICU referral indicators

INFERTILITY & FAMILY PLANNING

THEORY

UNIT I – Introduction to Fertility & Infertility

- Definition of fertility, fecundability, fecundity
- Definition of infertility:
 - Primary infertility
 - Secondary infertility
- Epidemiology, prevalence in India & globally
- Normal reproductive physiology:
 - Hypothalamic–pituitary–ovarian axis
 - Ovulation physiology
 - Normal male reproductive physiology
- Timing of ovulation & fertile window

UNIT II – Causes of Infertility

1. Female Factors

- Ovulatory disorders
 - PCOS
 - Hypothyroidism / Hyperthyroidism



- Hyperprolactinemia
- Premature ovarian insufficiency (POI)
- Tubal factors
 - Pelvic inflammatory disease
 - Post-surgical adhesions
 - Tuberculosis
- Uterine factors
 - Fibroids
 - Polyps
 - Asherman syndrome
 - Congenital anomalies (septate uterus, bicornuate uterus)
- Endometriosis
- Cervical factors (hostile mucus)

2. Male Factors

- Disorders of spermatogenesis
- Varicocele
- Ejaculatory dysfunction
- Obstructive azoospermia
- Endocrine disorders
- Lifestyle factors (smoking, alcohol, obesity)

3. Combined & Unexplained Infertility

- Co-existing causes in both partners
- Unexplained infertility – definition & evaluation

UNIT III – Evaluation of Infertility

1. Female Evaluation

- History & physical examination
- Menstrual assessment, ovulation tracking
- Hormonal evaluation
 - FSH, LH, TSH, Prolactin
 - AMH (Ovarian reserve)
 - Progesterone (Day 21)
- Imaging
 - Baseline pelvic ultrasound
 - Follicular monitoring
 - Hysterosalpingography (HSG)
 - Sonosalpingography (SIS/HyCoSy)
 - Laparoscopy & hysteroscopy
- Endometrial biopsy (rarely indicated)

2. Male Evaluation

- Semen analysis (WHO criteria)
- Hormonal profile: FSH, LH, Testosterone



- Scrotal ultrasound
- Genetic testing in azoospermia

3. Couple Evaluation

- Coital history
- Lifestyle & occupational factors
- Psychological impact assessment

UNIT IV – Management of Infertility

1. General Management

- Lifestyle modification
- Weight reduction
- Smoking/alcohol cessation
- Counseling and mental health support

2. Medical Management – Female

- Ovulation induction
 - Clomiphene citrate
 - Letrozole
 - Gonadotropins
- Management of PCOS
- Management of thyroid disorders
- Treatment of hyperprolactinemia (Cabergoline, Bromocriptine)

3. Surgical Management – Female

- Laparoscopic
 - Adhesiolysis
 - Ovarian drilling
 - Treatment of endometriosis
 - Tubal recanalization
- Hysteroscopic
 - Polypectomy
 - Fibroid removal
 - Septal resection

4. Male Management

- Treatment of infections
- Hormonal therapy
- Varicocele surgery
- Sperm retrieval techniques (TESA, PESA)

UNIT V – Assisted Reproductive Techniques (ART)

- Intrauterine insemination (IUI) – indications & steps

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- IVF – indications, steps, stimulation protocols
- ICSI
- Donor sperm program
- Donor oocyte program
- Surrogacy – legal & ethical guidelines
- Cryopreservation of gametes & embryos
- Preimplantation genetic testing (PGT)

UNIT VI – Family Planning & Contraception

1. Introduction

- Definition of family planning
- National family planning program (India)
- Importance of birth spacing
- Reproductive & Child Health (RCH) Program

2. Natural Methods

- Calendar method
- Basal body temperature
- Lactational amenorrhea method (LAM)

3. Barrier Methods

- Male condoms
- Female condoms
- Diaphragm
- Spermicides

4. Hormonal Contraception

- Combined oral contraceptives
- Progestin-only pills
- Injectable contraceptives (DMPA)
- Transdermal patches
- Vaginal rings

5. Intrauterine Devices (IUD/IUCD)

- Copper T
- Cu 375, Cu 380A
- LNG-IUS (Mirena)
- Postpartum IUCD insertion

6. Permanent Methods

- Female sterilization
 - Mini-laparotomy
 - Laparoscopic



- Male sterilization
 - Vasectomy
 - No-scalpel vasectomy

7. Emergency Contraception

- Levonorgestrel pill
- Ulipristal acetate
- Copper IUCD

UNIT VII – Complications & Failure of Contraceptives

- Contraceptive failure rates
- Complications of IUCD
- Complications of sterilization
- Ectopic pregnancy risk

UNIT VIII – Ethical, Legal & Counseling Aspects

- Informed consent in infertility & family planning
- Legal framework: ART Act, Surrogacy Act
- Sex selection laws (PCPNDT Act)
- Counseling for couple infertility
- Psychological considerations

PRACTICAL

SECTION A – INFERTILITY

➤ History Taking & Clinical Examination

- Complete infertility history (female and male partner)
- Menstrual & ovulation history
- Sexual history & coital timing
- Past PID / TB / surgery history
- Female general & systemic examination
- Pelvic examination – per speculum & per vaginum
- Male partner clinical evaluation basics

➤ Basic Investigations – Interpretation & Hands-On

- Semen analysis – sample collection, normal values, interpretation
- Thyroid tests, prolactin, FSH, LH, AMH interpretation
- Day 2 and Day 21 hormonal profile assessment
- Baseline pelvic ultrasound interpretation
- Follicular monitoring charts
- HSG report interpretation
- SIS/HyCoSy image interpretation
- Endometrial thickness assessment



➤ **Assisted Reproductive Techniques (Observation & Skill)**

- Ovulation induction protocols
- Trigger administration & monitoring
- IUI procedure
 - Semen preparation techniques
 - Catheter insertion
- IVF cycle monitoring
- Egg retrieval (observation)
- Embryo transfer (observation)
- Sperm retrieval (PESA/TESA) – observation

➤ **Surgical Skills (Assistance & Observation)**

- Diagnostic laparoscopy for infertility
- Laparoscopic treatment of endometriosis
- Laparoscopic adhesiolysis
- Tubal cannulation / recanalization
- Hysteroscopy
 - Polypectomy
 - Septum resection
 - Myomectomy (submucous)
- Operative findings recording and reporting

SECTION B – FAMILY PLANNING

➤ **Counseling for Contraceptive Choices**

- Eligibility criteria assessment
- WHO Medical Eligibility Criteria (MEC) application
- Tailoring methods: postpartum, post-abortion, high-risk women
- Documented counseling session (minimum 5 cases)

➤ **Temporary Contraceptive Methods**

- Condom demonstration (male & female)
- Diaphragm & cervical cap demonstration
- Oral contraceptive pill counseling demonstration
- Injectable contraceptive (DMPA) administration
- Emergency contraception counseling
- Vaginal ring & patch demonstration (model-based)

➤ **Intrauterine Device (IUD/IUCD) Skills**

Hands-on (Mannequin Practice)

- Cu-T insertion
- Cu-T removal
- LNG-IUS insertion (model-based)



Clinical Observation

- Postpartum IUCD insertion
- Post-abortion IUCD insertion
- Management of IUD complications
 - Missing strings
 - Expulsion

- **Permanent Contraception – Observation**

- Mini-lap tubal ligation
- Laparoscopic tubal ligation
- Vasectomy
- No-scalpel vasectomy technique
- Preoperative & postoperative care for sterilization patients

- **Family Planning Clinic / OPD Work**

- Register maintenance
- Consent documentation
- Method selection documentation
- Follow-up visits
- Management of contraceptive side effects
 - Irregular bleeding
 - Pain
 - IUCD-associated complaints

ULTRASOUND & IMAGING IN OBSTETRICS & GYNECOLOGY

THEORY

UNIT 1 – BASICS OF ULTRASOUND

- History & evolution of medical ultrasonography
- Basic physics of ultrasound
 - Sound waves, frequency, wavelength
 - Acoustic impedance & attenuation
 - Reflection, refraction, scattering
- Types of transducers & their uses
 - Linear, convex, sector, endocavitary
- Ultrasound modes
 - A-mode, B-mode
 - M-mode
 - Doppler ultrasound
 - Color Doppler, Power Doppler
- Image formation & optimization
 - Gain, depth, focus, TGC
- Safety in ultrasonography
 - ALARA principle



- Bioeffects & thermal index

UNIT 2 – FIRST TRIMESTER ULTRASOUND

- Indications for early pregnancy scan
- Dating of pregnancy
- Identification of gestational sac, yolk sac, fetal pole
- Diagnosis of early pregnancy failure
 - Anembryonic pregnancy
 - Missed abortion
- Ectopic pregnancy
 - Tubal, cervical, scar & ovarian ectopic
- Molar pregnancy
- Multiple gestation
 - Chorionicity & amnionicity
- Nuchal translucency (NT) scan
- CRL measurement principles
- Early screening for genetic abnormalities
 - Nasal bone
 - Ductus venosus
 - Tricuspid regurgitation

UNIT 3 – SECOND TRIMESTER ULTRASOUND

- Fetal biometry
 - BPD, HC, AC, FL, HL
- Growth assessment
- Anomaly scan / Level II scan
 - CNS anomalies
 - Cardiac defects
 - GI & GU system anomalies
 - Skeletal anomalies
 - Facial anomalies
- Placental localization
- Cervical length measurement
- Multiple pregnancy scan
- Soft markers for aneuploidy
- Fetal sex determination (legal restrictions)

UNIT 4 – THIRD TRIMESTER ULTRASOUND

- Fetal growth assessment
 - EFW (Estimated Fetal Weight)
 - FGR identification
- Amniotic fluid assessment (AFI, SDP)
- Biophysical profile (BPP)
- Doppler studies
 - Umbilical artery
 - MCA
 - Uterine artery



- Ductus venosus
- Fetal well-being assessment
- Placenta previa & accreta spectrum screening
- Presentation & lie
- Assessment before labor induction

UNIT 5 - OBSTETRIC IMAGING TECHNIQUES

- 3D/4D ultrasound
- Fetal echocardiography
- MRI in pregnancy
 - Indications
 - Safety considerations
- Imaging in obstetric emergencies
 - Abruptio placentae
 - PPH with retained products
 - Ruptured uterus
 - Placenta accreta spectrum

UNIT 6 - GYNECOLOGICAL ULTRASOUND

- Transabdominal pelvic scan
- Transvaginal ultrasound (TVS)
- Normal uterus & ovaries – measurement & appearance
- Endometrial thickness
- Ovarian folliculometry
- Uterine pathologies
 - Fibroids
 - Adenomyosis
 - Polyps
 - Congenital uterine anomalies
- Ovarian pathologies
 - Functional cysts
 - Endometrioma
 - Dermoid cyst
 - Polycystic ovaries
 - Ovarian torsion
- Tubal pathologies
 - Hydrosalpinx
 - Ectopic pregnancy
- Hystero-salpingography (HSG) – basics
- Sonosalpingography (SSG) / HyCoSy
- Pelvic inflammatory disease imaging
- Pelvic masses – benign vs malignant features

UNIT 7 - IMAGING IN GYNECOLOGICAL EMERGENCIES

- Ovarian torsion – signs
- Ruptured ectopic pregnancy
- Hemorrhagic ovarian cyst



- Acute PID / tubo-ovarian abscess
- Retained IUD complications
- Post-operative complications

UNIT 8 – IMAGING OF THE BREAST

- Breast ultrasound basics
- Evaluation of breast lumps
- Simple & complex cysts
- Fibroadenoma
- Malignancy features on ultrasound
- Pregnancy & lactation-related breast conditions

UNIT 9 – INTERVENTIONAL ULTRASOUND (OBGYN)

- Ultrasound-guided aspirations
 - Ovarian cyst aspiration
 - Tubo-ovarian abscess drainage (where indicated)
- Amniocentesis
- Chorionic villus sampling (CVS)
- Fetal procedures (observation-level only)
 - Thoracocentesis
 - Fetal reduction (for multifetal gestation)

UNIT 10 – LEGAL & ETHICAL ASPECTS

- PCPNDT Act – rules & regulations
- Documentation requirements
- Restrictions on fetal sex determination
- Safe ultrasound practice standards
- Machine maintenance & calibration

PRACTICAL

SECTION A – BASIC ULTRASOUND SKILLS

➤ Machine Handling & Safety

- Switching on/off & basic machine settings
- Transducer types identification
- Application of gel & probe hygiene
- Machine ergonomics
- Image optimization
 - Gain
 - Depth
 - Focus
 - Freeze
 - Cine-loop
- ALARA principle & safe scanning



- Recognizing artifacts

SECTION B – OBSTETRIC ULTRASOUND

➤ **First Trimester Scans**

- Pregnancy confirmation scan
- Gestational sac & yolk sac identification
- CRL measurement
- Heart activity (M-mode)
- Early pregnancy failure features
- Ectopic pregnancy detection (TVS/TAUS)
- Multiple pregnancy: chorionicity assessment
- First trimester screening markers
 - Nuchal translucency (NT)
 - Nasal bone
 - Ductus venosus (observation)

➤ **Second Trimester Scans**

- Fetal biometry measurements
 - BPD, HC, AC, FL
- Placental localization
- Fetal spine, heart, kidneys, long bones – basic evaluation
- Cervical length measurement (TVS demonstration)
- Amniotic fluid assessment (AFI/SDP)
- Anomaly scan reporting (observation-based)
- Soft markers for aneuploidy (observation & interpretation)

➤ **Third Trimester Scans**

- Fetal growth assessment
- Estimated fetal weight (EFW) calculation (software use)
- Biophysical profile (BPP) scoring
- Doppler studies
 - Umbilical artery
 - MCA
 - Uterine artery
 - Ductus venosus (observation)
- Presentation & fetal position assessment
- Placenta previa evaluation
- Placenta accreta spectrum – ultrasound signs

SECTION C – GYNECOLOGICAL ULTRASOUND

➤ **Gynecological Scan (TVS + TAS)**

- Uterine size & orientation
- Endometrial thickness measurement
- Ovarian morphology



- Identification of:
 - Fibroids
 - Adenomyosis
 - Polyps
 - Congenital uterine anomalies
- Ovarian pathologies
 - Functional cysts
 - Endometrioma
 - Dermoid cyst
 - PCOS follicles
 - Ovarian torsion signs

➤ **Folliculometry / Ovulation Monitoring**

- Counting follicles
- Measurement of dominant follicle
- Endometrial pattern recording
- Ovulation documentation

➤ **Tubal & Pelvic Pathology Imaging**

- Hydrosalpinx
- PID features
- Tubo-ovarian abscess (observation)
- Ectopic pregnancy features
- Free fluid in the pouch of Douglas

SECTION D – SPECIALIZED PROCEDURES

➤ **Sonosalpingography (SSG) / HyCoSy**

- Patient preparation
- Catheter insertion (simulation)
- Tubal patency assessment

➤ **Interventional Procedures**

- Amniocentesis
- Chorionic villus sampling (CVS)
- Ovarian cyst aspiration
- Guidance in D&C / evacuation

➤ **3D/4D Ultrasound**

- Switching to 3D/4D mode
- Fetal face and spine views
- Volume acquisition

SECTION E – OBSTETRIC & GYNECOLOGY IMAGING



➤ **Imaging Modalities**

- X-ray pelvis in obstetrics (limited use)
- MRI in pregnancy (cases)
- CT/MRI in gynecological conditions
 - Fibroids
 - Adenomyosis
 - Ovarian tumors
 - Pelvic masses
- 10 obstetric scans (different trimesters)
- 5 gynecology scans
- 3 Doppler reports
- 3 folliculometry cases
- 2 ultrasound emergency cases

SEMESTER – II

PAPER CODE	SUBJECT NAME	THEORY HOURS	PRACTICAL HOURS	THEORY MARKS	PRACTICAL MARKS
PGOG201	EMBRYOLOGICAL & FETAL DEVELOPMENT	45 Min	1 Hrs.	50	50
PGOG202	PSYCHOLOGY OF PREGNANCY, LABOUR & PUERPERIUM	45 Min	1 Hrs.	50	50
PGOG203	ANTENATAL & POSTNATAL CARE	45 Min	1 Hrs.	50	50
PGOG204	BASIC GYNECOLOGICAL DISORDER	45 Min	1 Hrs.	50	50

EMBRYOLOGICAL & FETAL DEVELOPMENT

THEORY

1. Basic Concepts of Embryology

- Definition and scope of embryology
- Importance in obstetrics and gynecology
- Gametogenesis:
 - Spermatogenesis
 - Oogenesis
- Menstrual cycle and ovulation
- Fertilization:
 - Site, process, and mechanisms
 - Capacitation and acrosomal reaction



- Formation of zygote

2. Early Embryonic Development (First 2 Weeks)

- Cleavage and blastocyst formation
- Morula and blastula stages
- Implantation:
 - Normal implantation process
 - Abnormal implantation (ectopic pregnancy)
- Formation of:
 - Bilaminar germ disc
 - Amniotic cavity
 - Yolk sac
- Development of trophoblast:
 - Cytotrophoblast
 - Syncytiotrophoblast

3. Third Week Development (Gastrulation)

- Formation of trilaminar germ disc:
 - Ectoderm
 - Mesoderm
 - Endoderm
- Primitive streak formation
- Notochord development
- Neurulation:
 - Neural tube formation
 - Neural crest cells
- Development of somites

4. Organogenesis (Weeks 4–8)

- Folding of embryo:
 - Cephalocaudal and lateral folding
- Development of major organ systems:
 - Cardiovascular system (first functional system)
 - Nervous system
 - Gastrointestinal tract
 - Respiratory system
- Limb development
- External body features
- Teratogenic period and critical stages

5. Placenta and Fetal Membranes

- Development of placenta:
 - Chorion formation
 - Chorionic villi (primary, secondary, tertiary)
- Placental circulation:
 - Maternal and fetal circulation



- Functions of placenta:
 - Nutrition, respiration, excretion
 - Endocrine functions (hCG, progesterone, estrogen)
- Fetal membranes:
 - Amnion
 - Chorion
 - Yolk sac
 - Allantois
- Umbilical cord:
 - Structure and function

6. Fetal Development (9 Weeks to Birth)

- Definition of fetal period
- Growth and maturation of fetus
- Trimester-wise development:
 - First trimester
 - Second trimester
 - Third trimester
- Fetal movements and viability
- Measurement of fetal growth:
 - Crown-rump length (CRL)
 - Biparietal diameter (BPD)
- Fetal circulation:
 - Ductus venosus
 - Foramen ovale
 - Ductus arteriosus

7. Amniotic Fluid

- Formation and circulation
- Functions
- Normal volume and composition
- Abnormalities:
 - Oligohydramnios
 - Polyhydramnios

8. Multiple Pregnancy

- Types:
 - Monozygotic twins
 - Dizygotic twins
- Placental variations:
 - Monochorionic, dichorionic
- Complications:
 - Twin-to-twin transfusion syndrome (TTTS)

9. Congenital Anomalies

- Definition and classification:

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- Malformations
- Deformations
- Disruptions
- Causes:
 - Genetic factors
 - Environmental factors (teratogens)
- Common congenital anomalies:
 - Neural tube defects
 - Congenital heart defects
 - Cleft lip and palate
- Prenatal diagnosis:
 - Ultrasound
 - Amniocentesis
 - Chorionic villus sampling (CVS)

10. Teratology

- Definition and principles
- Critical periods of development
- Teratogenic agents:
 - Drugs (e.g., thalidomide)
 - Infections (TORCH)
 - Radiation
- Effects on fetal development

11. Fetal Growth and Development Disorders

- Intrauterine Growth Restriction (IUGR)
- Macrosomia
- Causes and risk factors
- Assessment methods:
 - Clinical
 - Ultrasound
- Management principles

12. Fetal Well-being Assessment

- Clinical methods:
 - Fundal height
 - Fetal movement count
- Investigations:
 - Ultrasound
 - Doppler studies
 - Non-stress test (NST)
 - Biophysical profile (BPP)

13. Genetics in Embryology

- Basic genetics:
 - DNA, genes, chromosomes



- Chromosomal abnormalities:
 - Down syndrome
 - Turner syndrome
 - Klinefelter syndrome
- Inheritance patterns:
 - Autosomal dominant
 - Autosomal recessive
 - X-linked

14. Clinical Correlation in Obstetrics

- Importance of embryology in:
 - Antenatal care
 - Diagnosis of anomalies
 - Genetic counseling
- Role in infertility
- Role in assisted reproductive technologies (ART)

15. Advances in Reproductive Technologies & Fetal Medicine

- Stem cell research
- In-vitro fertilization (IVF)
- Genetic engineering and fetal therapy
- Prenatal screening advancements (NIPT)

PRACTICAL

➤ Embryological Models & Specimen Study

- Identification of stages:
 - Zygote, morula, blastocyst
- Study of implantation models
- Identification of germ layers:
 - Ectoderm, mesoderm, endoderm
- Study of embryonic folding and organogenesis models
- Identification of fetal organs in models/specimens

➤ Placenta & Fetal Membranes Examination

- Gross examination of placenta:
 - Shape, size, weight
 - Maternal surface (cotyledons)
 - Fetal surface (chorionic plate)
- Examination of:
 - Umbilical cord (length, vessels)
 - Amniotic membranes
- Identification of abnormalities:
 - Placenta previa
 - Placental infarction



- Cord abnormalities (true knot, single umbilical artery)

➤ **Ultrasound (USG) Practical Training**

- Basic principles of obstetric ultrasound
- Identification of:
 - Gestational sac
 - Yolk sac
 - Fetal pole
 - Cardiac activity
- Measurement techniques:
 - Crown-rump length (CRL)
 - Biparietal diameter (BPD)
 - Femur length (FL)
 - Abdominal circumference (AC)
- Estimation of:
 - Gestational age
 - Fetal weight
- Placenta localization
- Amniotic fluid index (AFI) measurement

➤ **Fetal Growth Monitoring**

- Plotting growth charts
- Fundal height measurement
- Assessment of fetal movements
- Identification of:
 - Intrauterine Growth Restriction (IUGR)
 - Macrosomia

➤ **Fetal Circulation Demonstration**

- Study of fetal circulation models:
 - Ductus venosus
 - Foramen ovale
 - Ductus arteriosus
- Comparison with neonatal circulation

➤ **Amniotic Fluid Assessment**

- Clinical assessment techniques
- Ultrasound-based AFI measurement
- Recognition of:
 - Oligohydramnios
 - Polyhydramnios

➤ **Prenatal Diagnostic Procedures (Observation/Assisting)**

- Amniocentesis (indications & steps)
- Chorionic Villus Sampling (CVS)



- Cordocentesis
- Indications, risks, and interpretation
- **Congenital Anomalies Identification**
- Identification via models, charts, and USG:
 - Neural tube defects
 - Hydrocephalus
 - Congenital heart defects
 - Cleft lip/palate
- Correlation with embryological development stages
- **Teratology Practical**
- Case-based discussion on teratogens:
 - Drugs
 - Infections (TORCH)
- Identification of risk factors
- Counseling simulation for pregnant women
- **Multiple Pregnancy Assessment**
- Ultrasound identification:
 - Monozygotic vs dizygotic twins
- Determination of chorionicity and amnionity
- Recognition of complications:
 - Twin-to-twin transfusion syndrome (TTTS)
- **Fetal Well-being Assessment**
- Non-Stress Test (NST) demonstration
- Biophysical Profile (BPP) interpretation
- Doppler ultrasound basics:
 - Umbilical artery flow
- Fetal movement counting (kick chart)
- **Genetics & Karyotyping (Demonstration)**
- Basics of karyotyping
- Identification of chromosomal abnormalities (charts/images):
 - Down syndrome
 - Turner syndrome
- Genetic counseling role-play

PSYCHOLOGY OF PREGNANCY, LABOUR & PUERPERIUM

THEORY

1. Introduction to Perinatal Psychology

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- Definition and scope
- Importance in obstetrics and maternal care
- Psychological adaptation to motherhood
- Role of obstetrician in mental health care
- Biopsychosocial model in pregnancy

2. Psychological Changes During Pregnancy

A. Emotional & Behavioral Changes

- Mood swings and emotional lability
- Anxiety, fear, and stress
- Body image changes
- Maternal identity formation

B. Trimester-wise Psychological Changes

- **First trimester:**
 - Ambivalence, fear of miscarriage
- **Second trimester:**
 - Acceptance, attachment to fetus
- **Third trimester:**
 - Anxiety about labour, parenthood

3. Maternal-Fetal Attachment

- Concept and development
- Factors affecting bonding
- Role of fetal movements and ultrasound
- Impact on postnatal bonding

4. Psychological Aspects of Labour

- Fear of labour pain (tokophobia)
- Stress and coping mechanisms
- Role of:
 - Support systems (partner, family)
 - Birth environment
- Cultural beliefs and practices
- Psychological preparation for childbirth:
 - Antenatal classes
 - Birth planning

5. Pain Perception & Psychological Influence

- Gate control theory of pain
- Role of anxiety and fear in pain perception
- Non-pharmacological pain relief methods:
 - Breathing techniques
 - Relaxation therapy



- Music therapy
- Continuous labor support

6. Psychological Disorders in Pregnancy

- Antenatal depression
- Anxiety disorders
- Adjustment disorders
- Substance abuse
- Risk factors and screening tools
- Impact on mother and fetus

7. Psychological Aspects of High-Risk Pregnancy

- Emotional impact of:
 - Recurrent pregnancy loss
 - Infertility
 - Fetal anomalies
 - Chronic maternal illness
- Coping strategies and counseling
- Ethical considerations

8. Postpartum (Puerperium) Psychological Changes

A. Normal Changes

- Emotional sensitivity
- Adjustment to motherhood
- Sleep disturbances

B. Postpartum Disorders

- Postpartum blues
- Postpartum depression
- Postpartum psychosis
- Risk factors, clinical features, and management

9. Mother-Infant Bonding

- Early bonding process
- Skin-to-skin contact importance
- Breastfeeding and emotional connection
- Impact of separation (NICU, illness)

10. Family Dynamics & Social Support

- Role of partner and family
- Cultural influences on pregnancy
- Domestic violence and its psychological impact
- Social determinants of maternal mental health



11. Communication & Counseling Skills

- Effective communication with pregnant women
- Breaking bad news (e.g., fetal anomaly)
- Counseling techniques:
 - Antenatal counseling
 - Postnatal counseling
- Empathy and patient-centered care

12. Screening & Assessment Tools

- Edinburgh Postnatal Depression Scale (EPDS)
- Anxiety screening tools
- Risk assessment strategies
- Mental status examination in obstetrics

13. Management of Psychological Disorders

- Non-pharmacological management:
 - Counseling
 - Cognitive Behavioral Therapy (CBT)
- Pharmacological considerations:
 - Safety of antidepressants in pregnancy
- Multidisciplinary approach:
 - Psychiatrist
 - Psychologist
 - Social worker

14. Special Situations

- Teenage pregnancy
- Unwanted pregnancy
- Pregnancy after assisted reproductive techniques (ART)
- Pregnancy loss and grief counseling
- Stillbirth and bereavement care

PRACTICAL

➤ Psychological Assessment in Pregnancy

- Conducting antenatal psychological interviews
- Use of screening tools:
 - Edinburgh Postnatal Depression Scale (EPDS)
 - General Anxiety Assessment tools
- Identifying:
 - Anxiety disorders
 - Depression
 - Fear of childbirth (Tokophobia)
- Risk assessment for high-risk pregnancies (psychological factors)



➤ **Counseling Skills in Obstetrics**

- Building rapport with pregnant women and families
- Effective communication techniques:
 - Verbal and non-verbal communication
 - Empathy and active listening
- Providing:
 - Antenatal counseling
 - Nutritional & lifestyle counseling
 - Birth preparedness counseling
- Handling sensitive topics:
 - Unplanned pregnancy
 - Teenage pregnancy
 - Pregnancy loss

➤ **Psychological Care During Pregnancy**

- Supporting emotional changes in each trimester
- Managing:
 - Mood swings
 - Anxiety and stress
- Teaching relaxation techniques:
 - Breathing exercises
 - Meditation
- Conducting group education sessions for pregnant women

➤ **Psychological Support During Labour**

- Labour room communication skills
- Providing emotional reassurance during labour
- Pain perception and psychological support:
 - Non-pharmacological pain relief methods
- Supporting:
 - Fear and panic management
 - Partner involvement during labour
- Crisis intervention in emergency labour situations

➤ **Postpartum (Puerperium) Psychological Care**

- Assessment of maternal mental health after delivery
- Identifying:
 - Baby blues
 - Postpartum depression
 - Postpartum psychosis
- Counseling for:
 - Breastfeeding support
 - Mother–infant bonding
- Family counseling and support

➤ **Handling Special Psychological Situations**

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- Counseling in:
 - High-risk pregnancy
 - Stillbirth and neonatal death
 - Congenital anomalies
 - Managing domestic violence cases
 - Addressing substance abuse in pregnancy
 - Ethical and legal considerations
- **Communication with Family & Multidisciplinary Team**
- Interaction with:
 - Obstetricians
 - Nurses
 - Psychologists
 - Family counseling techniques
 - Breaking bad news sensitively
- **Health Education & Awareness**
- Conducting:
 - Antenatal classes
 - Parenting education sessions
 - Awareness on:
 - Mental health in pregnancy
 - Importance of emotional well-being
 - Developing IEC (Information, Education, Communication) materials

ANTENATAL & POSTNATAL CARE

THEORY

1. Introduction to Antenatal Care

- Definition and objectives of antenatal care
- Importance of antenatal care in maternal & fetal outcomes
- Components of antenatal care
- Schedule of antenatal visits (WHO recommendations)
- Preconception care and counseling

2. Physiological Changes in Pregnancy

- Changes in:
 - Reproductive system
 - Cardiovascular system
 - Respiratory system
 - Gastrointestinal system
 - Renal system
 - Endocrine system
 - Musculoskeletal system



- Hormonal changes and their effects

3. Diagnosis of Pregnancy

- Signs and symptoms:
 - Presumptive, probable, and positive signs
- Pregnancy tests:
 - Urine pregnancy test
 - Serum beta-hCG
- Role of ultrasound in early pregnancy

4. Antenatal Assessment

- History taking:
 - Obstetric history (GTPAL)
 - Medical & surgical history
- General physical examination
- Obstetric examination:
 - Fundal height measurement
 - Fetal lie, presentation, position
 - Fetal heart rate monitoring
- Risk assessment and classification

5. Routine Antenatal Investigations

- Blood tests:
 - Hemoglobin, blood group, Rh typing
 - Blood sugar
 - Thyroid function tests
- Urine examination
- Screening for infections:
 - HIV
 - Hepatitis B
 - Syphilis
- Ultrasound scans:
 - Dating scan
 - Anomaly scan
 - Growth scan

6. Nutrition in Pregnancy

- Nutritional requirements:
 - Macronutrients and micronutrients
- Iron, calcium, folic acid supplementation
- Balanced diet planning
- Dietary modifications in:
 - Anemia
 - Diabetes
- Weight gain recommendations



7. Minor Disorders of Pregnancy

- Nausea and vomiting (morning sickness)
- Heartburn
- Constipation
- Backache
- Leg cramps
- Management of minor ailments

8. High-Risk Pregnancy

- Definition and classification
- Risk factors:
 - Maternal age
 - Previous obstetric history
- Common high-risk conditions:
 - Gestational Diabetes Mellitus
 - Preeclampsia
 - Anemia
- Monitoring and management principles

9. Antenatal Complications

- Bleeding in pregnancy:
 - Placenta Previa
 - Placental Abruption
- Multiple pregnancy
- Intrauterine growth restriction (IUGR)
- Preterm labor

10. Immunization in Pregnancy

- Importance of immunization
- Vaccines:
 - Tetanus toxoid (TT)
 - Tdap
- National immunization guidelines

11. Drugs in Pregnancy

- Principles of drug use in pregnancy
- Teratogenic drugs
- Safe medications
- FDA drug categories

12. Health Education & Counseling

- Birth preparedness and complication readiness
- Lifestyle advice:
 - Exercise



- Rest and sleep
- Avoidance of harmful habits:
 - Smoking
 - Alcohol
- Psychological support

POSTNATAL CARE (PUERPERIUM)

13. Introduction to Puerperium

- Definition and duration
- Physiological changes during puerperium
- Stages of puerperium

14. Postnatal Assessment

- Maternal assessment:
 - Vital signs
 - Uterine involution
 - Lochia
- Perineal care
- Breast examination

15. Postnatal Care of Mother

- Hygiene and personal care
- Nutrition in lactation
- Postnatal exercises
- Family planning counseling

16. Breastfeeding

- Physiology of lactation
- Benefits of breastfeeding
- Techniques of breastfeeding
- Exclusive breastfeeding
- Common problems:
 - Engorgement
 - Mastitis

17. Postnatal Complications

- Postpartum hemorrhage (PPH)
- Puerperal sepsis
- Postpartum Depression
- Postpartum Psychosis

18. Care of the Newborn

- Immediate newborn care



- APGAR scoring
- Thermal protection
- Early initiation of breastfeeding

19. Family Planning & Contraception

- Importance of spacing
- Methods:
 - Natural methods
 - Barrier methods
 - Hormonal methods
 - Intrauterine devices (IUCD)
- Counseling for contraception

20. Follow-up & Postnatal Visits

- Schedule of postnatal visits
- Monitoring maternal recovery
- Infant growth and development
- Warning signs requiring medical attention

21. Community & Public Health Aspects

- Maternal health programs (India)
- Role of ASHA/ANM workers
- Institutional delivery promotion
- Maternal mortality and morbidity prevention

PRACTICAL

➤ Antenatal History Taking

- Recording detailed obstetric history (GTPAL)
- Menstrual history, LMP & EDD calculation
- Past medical and surgical history
- Family and personal history
- Identification of high-risk factors

➤ General Physical Examination

- Measurement of:
 - Height, weight, BMI
 - Blood pressure
 - Pulse, temperature
- Examination for:
 - Pallor, edema, jaundice
- Systemic examination (CVS, RS, CNS)

➤ Obstetric Examination



- Abdominal examination:
 - Fundal height measurement
 - Abdominal girth
- Leopold's Maneuvers
- Assessment of:
 - Fetal lie, presentation, position
- Auscultation of fetal heart rate (FHR)

- **Calculation Skills**

- Expected Date of Delivery (EDD) using Naegele's rule
- Gestational age calculation
- Interpretation of weight gain

- **Antenatal Investigations (Hands-on/Observation)**

- Blood sample collection (observation/assistance)
- Urine testing (albumin, sugar)
- Interpretation of reports:
 - Hemoglobin
 - Blood group & Rh typing
 - Blood sugar
- Screening tests for:
 - HIV
 - Hepatitis B
 - Syphilis
- Assisting in ultrasound procedures

- **Antenatal Care Procedures**

- Iron and folic acid supplementation
- Calcium supplementation
- Administration of tetanus toxoid (TT) injection (under supervision)
- Monitoring fetal growth

- **Identification & Management of High-Risk Pregnancy**

- Screening for:
 - Gestational Diabetes Mellitus
 - Preeclampsia
 - Anemia
- Referral protocols
- Monitoring high-risk cases

- **Health Education & Counseling (Antenatal)**

- Diet and nutrition counseling
- Birth preparedness and complication readiness
- Personal hygiene and lifestyle advice
- Counseling on danger signs in pregnancy



POSTNATAL CARE PRACTICALS

➤ **Postnatal Assessment of Mother**

- Monitoring vital signs
- Uterine involution assessment
- Observation of lochia
- Perineal inspection and care
- Breast examination

➤ **Postnatal Care Procedures**

- Perineal care (episiotomy care)
- Assisting in early ambulation
- Postnatal exercises demonstration
- Maintaining hygiene

➤ **Breastfeeding Support**

- Assisting mother in initiation of breastfeeding
- Demonstrating correct positioning and attachment
- Managing common problems:
 - Engorgement
 - Sore nipples
- Promoting exclusive breastfeeding

➤ **Identification of Postnatal Complications**

- Recognition of:
 - Postpartum hemorrhage (PPH)
 - Puerperal sepsis
 - Postpartum Depression
- Immediate reporting and referral

➤ **Newborn Care**

- Immediate care of newborn
- APGAR scoring (observation)
- Cord care
- Thermal protection
- Assisting in immunization

➤ **Family Planning Counseling**

- Counseling on:
 - Spacing methods
 - Barrier methods
 - IUCD
- Demonstration (models where available)



BASIC GYNECOLOGICAL DISORDER

THEORY

1. Introduction to Gynecology

- Definition and scope of gynecology
- Anatomy of female reproductive system:
 - External genitalia
 - Internal organs (uterus, ovaries, fallopian tubes)
- Physiology of menstrual cycle
- Hormonal regulation

2. Menstrual Disorders

- Normal menstrual cycle
- Types of menstrual disorders:
 - Amenorrhea (primary & secondary)
 - Dysmenorrhea
 - Menorrhagia
 - Oligomenorrhea
 - Polymenorrhea
- Causes, diagnosis, and management

3. Puberty & Adolescent Gynecology

- Pubertal development
- Disorders:
 - Delayed puberty
 - Precocious puberty
- Adolescent menstrual problems
- Counseling and management

4. Vaginal & Cervical Disorders

- Vaginitis:
 - Bacterial vaginosis
 - Fungal infections
- Cervicitis
- Abnormal vaginal discharge:
 - Causes and evaluation
- Screening for cervical cancer:
 - Pap smear
 - HPV testing

5. Pelvic Inflammatory Disease (PID)

- Definition and causes
- Pathophysiology



- Clinical features
- Diagnosis and complications
- Management and prevention

6. Uterine Disorders

- Fibroid uterus (leiomyoma)
- Adenomyosis
- Endometrial hyperplasia
- Abnormal uterine bleeding (AUB):
 - Classification (PALM-COEIN)
- Diagnosis and treatment

7. Ovarian Disorders

- Functional ovarian cysts
- Polycystic ovarian disease:
 - Polycystic Ovary Syndrome
- Ovarian tumors (benign & malignant)
- Hormonal disturbances

8. Endometriosis

- Definition and pathogenesis
- Clinical features (pain, infertility)
- Diagnosis (laparoscopy)
- Management options

9. Infertility

- Definition (primary & secondary infertility)
- Causes:
 - Female factors
 - Male factors
- Investigations:
 - Ovulation assessment
 - Tubal patency tests
- Basic management principles

10. Contraception

- Need and importance
- Methods:
 - Natural methods
 - Barrier methods
 - Hormonal methods
 - Intrauterine devices (IUCD)
 - Permanent methods (sterilization)
- Advantages, disadvantages, and complications



11. Sexually Transmitted Infections (STIs)

- Common STIs:
 - HIV
 - Syphilis
 - Gonorrhoea
- Clinical features and diagnosis
- Treatment and prevention

12. Pelvic Organ Prolapse

- Types:
 - Uterine prolapse
 - Cystocele
 - Rectocele
- Risk factors
- Clinical features
- Management (conservative & surgical)

13. Menopause & Postmenopausal Disorders

- Physiology of menopause
- Symptoms:
 - Hot flushes
 - Osteoporosis
- Postmenopausal bleeding
- Hormone replacement therapy (HRT)

14. Benign & Malignant Gynecological Tumors

- Benign tumors:
 - Fibroids
 - Ovarian cysts
- Malignant tumors:
 - Cervical cancer
 - Endometrial cancer
 - Ovarian cancer
- Screening, diagnosis, and basic management

15. Urinary Disorders in Gynecology

- Urinary incontinence:
 - Stress incontinence
 - Urge incontinence
- Urinary tract infections (UTIs)
- Diagnosis and management

16. Breast Disorders (Basic Overview)

- Mastitis



- Breast abscess
- Benign breast diseases
- Breast cancer awareness

17. Gynecological Emergencies

- Ectopic pregnancy
- Ovarian torsion
- Acute pelvic pain
- Immediate management principles

18. Diagnostic Procedures in Gynecology

- Pelvic examination
- Pap smear
- Ultrasound
- Hysteroscopy
- Laparoscopy

19. Drugs Used in Gynecology

- Hormonal therapy:
 - Estrogen
 - Progesterone
- Antibiotics
- Analgesics
- Ovulation induction drugs

20. Health Education & Counseling

- Menstrual hygiene
- Sexual health education
- Counseling for infertility
- Lifestyle modification

21. National Programs & Public Health

- Reproductive health programs (India)
- Family planning initiatives
- Screening programs for cancer

22. Ethical & Legal Aspects

- Consent in gynecological procedures
- Medical termination of pregnancy (MTP Act)
- Confidentiality and patient rights

PRACTICAL



➤ **Gynecological History Taking**

- Recording detailed patient history:
 - Menstrual history (cycle, duration, flow)
 - Obstetric history (GTPAL)
 - Sexual history (when appropriate)
 - Contraceptive history
- Identification of symptoms:
 - Abnormal bleeding
 - Vaginal discharge
 - Pelvic pain
- Screening for high-risk conditions

➤ **General Physical Examination**

- Assessment of:
 - Vital signs (BP, pulse, temperature)
 - BMI and nutritional status
- Examination for:
 - Pallor, edema
 - Signs of hormonal imbalance (hirsutism, acne)
- Systemic examination

➤ **Gynecological Examination**

- External genital examination
- Speculum examination:
 - Visualization of cervix
 - Identification of lesions/discharge
- Bimanual pelvic examination:
 - Uterine size, position, mobility
 - Adnexal masses
- Maintaining privacy, consent, and asepsis

➤ **Diagnostic Procedures**

- Assisting/observing:
 - Pap smear collection
 - High vaginal swab collection
- Preparation and handling of specimens
- Assisting in imaging:
 - Pelvic ultrasound
- Observation of:
 - Hysteroscopy
 - Laparoscopy

➤ **Assessment of Menstrual Disorders**

- Evaluation of:
 - Amenorrhea



- Dysmenorrhea
- Menorrhagia
- Hormonal profile interpretation
- Charting menstrual patterns

- **Management of Vaginal Discharge & Infections**

- Identification of abnormal discharge
- Collection of samples for laboratory testing
- Basic management principles of infections
- Counseling on hygiene and prevention

- **Screening for Sexually Transmitted Infections (STIs)**

- Identification of symptoms of:
 - HIV
 - Syphilis
- Counseling for STI testing
- Referral protocols

- **Evaluation of Common Gynecological Disorders**

- Identification and basic assessment of:
 - Polycystic Ovary Syndrome
 - Fibroids
 - Ovarian cysts
- Interpretation of ultrasound findings (basic level)

- **Infertility Workup (Basic Exposure)**

- History taking for infertility
- Assisting in investigations:
 - Ovulation tracking
 - Hormonal tests
- Counseling couples regarding basic evaluation

- **Contraceptive Methods (Demonstration & Counseling)**

- Demonstration of:
 - Barrier methods (condoms)
 - IUCD insertion (model/demo)
- Counseling on:
 - Hormonal contraceptives
 - Emergency contraception

- **Screening for Gynecological Cancers**

- Pap smear procedure (observation/assistance)
- Awareness of:
 - Cervical cancer



- Breast cancer
- Patient education on early detection
- **Management of Pelvic Organ Prolapse**
- Identification of:
 - Uterine prolapse
 - Cystocele/rectocele
- Demonstration of pessary use (if available)
- Referral for surgical management
- **Breast Examination**
- Clinical breast examination techniques
- Identification of:
 - Lump
 - Infection (mastitis)
- Teaching self-breast examination
- **Gynecological Emergencies (Observation)**
- Recognition of:
 - Ectopic pregnancy
 - Acute pelvic pain
- Immediate referral and basic emergency care
- **Drug Administration & Management**
- Understanding use of:
 - Hormonal therapy
 - Antibiotics
- Assisting in medication administration
- Monitoring side effects



LIST OF HOLIDAYS

TOTAL DAY IN 1 YEAR	365/366
SUNDAY	52 DAYS
SUMMER VACATION	10 DAYS
WINTER VACATION	10 DAYS
GAZETTED HOLIDAYS	23 DAYS
OTHER HOLIDAYS	20 DAYS
TOTAL HOLIDAYS	115 DAYS
TOTAL WORKING DAYS	365-115=250

TOTAL HOURS

THEORY CLASS PER DAY	3 HOURS
PRACTICAL CLASS PER DAY	4 HOURS
TOTAL HOURS PER DAY	7 HOURS
TOTAL HOURS IN 1 YEAR	250*7=1750
TOTAL HOURS IN 6 MONTHS	875 HOURS



Chairman

Paramedical Education & Training Council