



**ALL INDIA INSTITUTE OF MEDICAL SCIENCES  
NAGPUR**

**Department of Obstetrics and Gynecology**

**Syllabus  
Obstetrics and Gynecology  
Undergraduate**

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## 1.0 Goals and Objectives

Teaching has to be done keeping in mind the goals and objectives to be achieved by medical student

### Goal:

The broad goal of the teaching of undergraduate students in Obstetrics and Gynecology is that he/she shall acquire knowledge of female reproductive system and gain the ability to optimally manage common conditions affecting it.

**Objectives** : The objectives of learning in the subject will be achieved through knowledge, skills application and integration.

### 1.1 Knowledge

At the end of the course, the medical graduate will :

1. Know female reproductive system and the pathophysiology affecting it.
2. Make a diagnosis of pregnancy, know the aspects of preventive care during pregnancy and understand high risk pregnancy.
3. Understand postpartum care, lactation and puerperium
4. Know the maternal and perinatal morbidity and mortality rates and their causes.
5. Know about comprehensive contraception choices, medical termination of pregnancy and the rules and regulations related with the procedures
6. Describe the national programme and policies for maternal and child health and family welfare.
7. Identify common gynecological diseases and describe principles of their management.
8. Know about preventive and screening aspects of gynecological malignancies

### 1.2 Skills

At the end of the course, the medical graduate shall be able to :

1. Examine a pregnant woman; recognize high-risk pregnancies and make appropriate referrals
2. Conduct a normal delivery, recognize complications and provide postnatal care;
3. Resuscitate the newborn and recognize the congenital anomalies
4. Advise a couple on the use of various available contraceptive devices and assist in insertion and removal of intra-uterine contraceptive devices.
5. Perform pelvic examination, diagnose and manage common gynecological problems, make a vaginal swab for vaginal infections
6. Screen for early detection of genital malignancies and perform a cervical cytological smear, for screening of malignancy

### 1.3 Integration

The student shall be able to integrate clinical skills with other disciplines and bring about coordination of knowledge and skills to develop into a model medical graduate.

### 1.4 Training Guidelines:

To achieve the goals and objectives the medical graduate will have mandatory attendance for the lectures, clinics in various specialties such as antenatal care, screening for cancer, gynecology out patients department, postnatal clinics, family welfare clinic, operation theatre and in-door wards including labor wards.

Postings in labor ward for a minimum period of 6 days will be mandatory to achieve training in obstetrics skills where the student will be resident and conduct at least 10 cases of labour under adequate supervision and assist 10 other cases.

## 2.0 Teaching Methods

The teaching methods will include didactic lectures , bedside clinics, tutorials, seminars, practical demonstration through videos and mannequins and labor ward posting .

The medical students will be visiting the department after his first professional year. In this first year, the students are introduced to the subject with emphasis on interaction and communication with patients to enable history taking and examination of obstetric and gynecological patients.

In their second year, the obstetric examination skills are enhanced, the students will have an understanding of the pathological conditions, especially in gynecology. The student will also have an understanding of high risk obstetric conditions.

In the final year, the students will gain skills and confidence to manage normal pregnancy, make a diagnosis of complications of pregnancy and pathological gynecological conditions.

**3.0 Teaching schedule:** The teaching hours and schedule of teaching has been enumerated below.

### 3.1 Distribution of Teaching hours

- a. Lectures - 120 hours
- b. Bedside clinics - 270 hours
- c. Tutorials, seminars, integrated teaching and revision - 160 hours
- d. Self-directed learning sessions- 20 hours

#### a. Lectures

Semester	Hours, number of weeks	Total
3	1 x16	16
4	1 x16	16
6	1 x16	16
7	1x16	16
8	2x16	32
9	2x12	24
	<b>Total</b>	<b>120</b>

#### b. Clinics and Labor ward posting

Semester	Hours, number of days, number of weeks	Total
3	3 x1x 4	12
4	3 x 5 x 4	60
6	3x6x4	72
8	3x6x4	72
9	3x6x3	54
	<b>Total</b>	<b>270</b>

During the 6<sup>th</sup> or 7<sup>th</sup> semester, labor ward posting will be scheduled , for a period of 6 days, from 7pm to 6am.

d. Tutorials, Seminars, Integrated teaching : 160 hours

Semester	Integrated teaching	Seminar	Tutorial	Hours
6	2 sessions, 2 hours each, = <b>4 hours</b> Anatomy Community Medicine	4 sessions, 2 hours each, = <b>8 hours</b>	4 sessions, 1 hour each= <b>4 hours</b>	16
7	5 sessions, 2 hours each, = <b>10 hours</b> Anesthesia (1) Blood Transfusion(1) Medicine (2) Pathology(1)	4 sessions, 2 hours each, = <b>8 hours</b>		18
8	8 sessions, 2 hours each, = <b>16hours</b> Pathology (2) Pharmacology (1) Microbiology(1) Forensic Medicine (1) Neonatology (1) Surgery (1) Radiodiagnosis (1)	Labor ward posting, from 6pm to 6am x6 days = <b>7 2 hours</b> Tutorials and practical training		88
9	8 sessions , 2 hours each = <b>16 hours</b> Medicine (3) Pediatrics (1) Radiotherapy (1) Skin and VD (1) Psychiatry (1) Physiotherapy (1)		3 classes per week x 7 weeks = <b>21 hours</b>	37
	<b>Total</b>			<b>159</b>

e. Self-directed learning sessions- 20 hours

Semester	Number of sessions
6	2
7	3
8	10
9	5

## 4.0 Course Content

### 4.1 Class room lectures

3rd semester : 16

No.	Topic	Lesson Plan
1	<b>Demography and Vital Statistics</b>	Describe and discuss Birth rate, maternal mortality and morbidity and audit Perinatal mortality and morbidity audit. Stillbirth Maternal Near-Miss
2	<b>Anatomy of Female reproductive tract</b>	Describe and discuss Development of the female reproductive tract
3		Discuss Anatomy of the female reproductive tract, relationship to other pelvic organs
4		Describe Applied anatomy of the female reproductive tract
5	<b>Physiology of conception</b>	Describe the physiology of ovulation, menstruation
6		Describe the physiology of fertilization, implantation and gametogenesis
7	<b>Development of the fetus and the placenta</b>	Describe and discuss the basic anatomy and physiology of placenta, and teratogenesis
8		Describe and discuss the basic embryology of fetus, factors influencing fetal growth and development, fetal circulation and changes in fetal circulation at birth
9	<b>Physiology of pregnancy</b>	Describe and discuss the changes in the genital tract, breast, and systemic changes :hematology and cardiovascular system.
10		Systemic changes in pregnancy: renal respiratory gastrointestinal, hepatobiliary, integumentary and endocrine
11	<b>Diagnosis of pregnancy</b>	Clinical features of pregnancy, its differential diagnosis, the principles underlying and interpret pregnancy tests. Estimation of gestational age
12	<b>Preconception counselling</b>	Describe pre-existing medical disorders and discuss their management;
14	<b>Antenatal Care</b>	Enumerate, describe and discuss the objectives of antenatal care, assessment of period of gestation; Determine maternal high risk factors and verify immunization status
15		Enumerate the indications for and types of vaccination in pregnancy  Describe nutritional requirements in pregnancy and lactation .  Discuss about exercise and lifestyle during pregnancy
16		Enumerate the indications and describe the investigations including the use of ultrasound in the initial assessment and monitoring in pregnancy.

4<sup>th</sup> Semester: 16

No.	Topic	Lesson Plan
1	<b>Complications in early pregnancy</b>	Classify, define and discuss the etiology and management of <b>abortions</b> including threatened, incomplete, inevitable, missed and septic
2		Discuss the etiology, clinical features, differential diagnosis of acute abdomen in early pregnancy (with a focus on <b>ectopic pregnancy</b> ) and enumerate the principles of medical and surgical management
3		Discuss the clinical features, laboratory investigations, ultrasonography, differential diagnosis, principles of management and follow up of <b>gestational trophoblastic disease</b>
4		Describe the etiopathology, impact on maternal and fetal health and principles of management of <b>hyperemesis gravidarum</b>
5	<b>Labour</b>	Enumerate and discuss the physiology of normal labor
6		Describe Maternal pelvis and fetal skull
7		Mechanism of labor in occipito-anterior presentation
8		Monitoring of labor including partogram; conduct and management of normal labor, pain relief;
9		Management of third stage of labor. Complications of third stage of labour (introduction)
10	<b>Normal puerperium.</b>	Describe and discuss the physiology of puerperium
11		Describe and discuss the complications, diagnosis and management of abnormal puerperium
12	<b>Lactation</b>	Describe and discuss the physiology of lactation. Describe and discuss the clinical features, diagnosis and management of mastitis and breast abscess
13	<b>MTP</b>	Discuss safe abortion counselling, MTP act and its amendments
14		Pre-conception and Pre Natal Diagnostic Techniques (PC& PNDT) Act 1994 & its amendments
15		Enumerate the indications and describe methods for first trimester MTP
16		Enumerate methods of second trimester MTP. Discuss complications and management Medical Termination of Pregnancy

6<sup>th</sup> Semester: 16

No.	Topic	Lesson Plan
1	<b>Contraception</b>	Describe and discuss the temporary and methods of contraception, indications, technique and complications; selection of patients, side effects and failure rate ( <b>Barrier, IUCD, PPIUCD programme</b> )
2		Describe and discuss the temporary methods of contraception, indications, technique and complications; selection of patients, side effects and failure rate ( <b>OCPs, other hormonal methods</b> )
3		Describe and discuss the <b>permanent methods</b> of contraception (female and male), indications, technique and complications; selection of patients, side effects and failure rate
4		<b>Emergency contraception</b> and miscellaneous.
5	<b>Vaginal discharge and Vaginitis</b>	Describe the clinical characteristics of physiological <b>vaginal discharge</b> . Describe and discuss the etiology (with special emphasis on Candida, T. vaginalis, bacterial vaginosis), characteristics, clinical diagnosis, investigations, genital hygiene, management of common causes and the syndromic management
6	<b>Genital infections</b>	Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of <b>sexually transmitted infections, HIV &amp; Pelvic Inflammatory Disease</b> .
7		Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of <b>genital tuberculosis</b>
8	<b>Adolescent health (Normal and abnormal puberty)</b>	Describe and discuss the physiology of puberty, features of <b>precocious puberty</b> , common problems and their management
9		Enumerate the causes of <b>delayed puberty</b> . Describe the investigation and management of common causes
10	<b>Antepartum haemorrhage</b>	Define, classify and describe the aetiology, pathogenesis, clinical features, ultrasonography, differential diagnosis and management of antepartum haemorrhage in pregnancy ( <b>placenta previa</b> )
11		Define, classify and describe the etiology, pathogenesis, clinical features, ultrasonography, differential diagnosis and management of antepartum haemorrhage in pregnancy ( <b>abruption</b> )
12	<b>Multiple pregnancies</b>	Describe the etiopathology, clinical features; diagnosis and investigations, complications, principles of management of multiple pregnancies

13	<b>Hypertensive Disorders in pregnancy</b>	Define, <b>classify</b> and describe the <b>etiology and pathophysiology</b> of hypertensive disorders of pregnancy.
14		Early detection, investigations; <b>principles of management</b> of hypertensive disorders of pregnancy
15		<b>Severe Pre eclampsia, and it's complications including Eclampsia</b>
16	<b>Care of the newborn</b>	Describe and discuss the assessment of maturity of the newborn, diagnosis of birth asphyxia, principles of resuscitation, common problems.

### 7th Semester: 16

No.	Topic	Lesson Plan
1		Describe etiology , diagnosis of preterm labor and premature rupture of membranes. Enumerate and describe the indications and steps of <b>cervical cerclage</b>
2		Describe and discuss diagnosis and management of postterm pregnancy
3		Describe the mechanism, prophylaxis, fetal complications, diagnosis and management of <b>isoimmunization in pregnancy</b> .  Describe the mechanism, prophylaxis, fetal complications, diagnosis and management of <b>non-immune hydrops in pregnancy</b>
4	<b>Medical Disorders in pregnancy</b>	Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, adverse effects on the mother and fetus and the management during pregnancy and labor, and complications of anemia in pregnancy ( <b>nutritional anemia</b> )
5		Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, adverse effects on the mother and fetus and the management during pregnancy and labor, and complications of anemia in pregnancy ( <b>haemoglobinopathies</b> )
6		Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and fetus in <b>diabetes in pregnancy</b> . Describe the management during pregnancy and labor, and complications of diabetes in pregnancy
7		Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and fetus and the management during pregnancy and labor, and complications of heart diseases in pregnancy ( <b>Rheumatic heart disease</b> )
8		Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and fetus and the management during pregnancy and labor, and complications of heart diseases in pregnancy ( <b>Congenital heart disease</b> )

9		Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of <b>urinary tract infections in pregnancy and renal disease in pregnancy</b>
10		Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of <b>liver disease in pregnancy</b>
11		Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of <b>thyroid disorders in pregnancy</b>
12		Discuss about Respiratory disorders, epilepsy, Systemic Lupus Erythematosus and Thrombophilia in pregnancy.
13		Describe and discuss screening, risk factors, management of mother and newborn with <b>HIV</b> in pregnancy
14		Describe and discuss screening, risk factors and management of <b>TORCH</b> and other infections during pregnancy
15		Describe and discuss causes, clinical features, diagnosis, investigations; monitoring of fetal well-being in <b>intrauterine growth restriction</b>
16		Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of <b>recurrent pregnancy loss</b>

#### 8<sup>th</sup> Semester: 32

No	Topic	Lesson Plan
1	<b>Amenorrhea</b>	Describe and discuss the causes of primary amenorrhea, its investigation and the principles of management.
2		Describe and discuss the disorders of sexual development: Adrenogenital syndrome, Turner's Syndrome, Androgen Insensitivity Syndrome
3	<b>PCOS and disorders of menstruation</b>	Describe and discuss the etiopathogenetic; clinical features; differential diagnosis; investigations; management, complications of PCOS
4		Describe and discuss dysmenorrhea and Premenstrual syndrome
5	<b>Abnormal uterine bleeding</b>	Define, classify and discuss abnormal uterine bleeding, its etiology and clinical features,
6		Investigations, diagnosis and management of AUB.

7	<b>Uterine fibroids</b>	Describe and discuss the etiology; pathology; clinical features; differential diagnosis; investigations in fibroid. Principles of management and complications of fibroid uterus
8	<b>Endometriosis and Adenomyosis</b>	Describe and discuss the etiopathogenesis, clinical features; investigation and implications on health and fertility and management of adenomyosis and endometriosis.
9	<b>Infertility</b>	Describe and discuss the common causes, pathogenesis, clinical features, evaluation and investigations
10		Describe and discuss the principles of management of infertility – Assessment of ovulation and ovulation induction
11		Enumerate the assessment of tubal, uterine and cervical factors of infertility
12		Enumerate and discuss the various assisted reproductive techniques.  Ovum, sperm donation and surrogacy .
13	<b>Uterine prolapse</b>	Describe and discuss the etiology, classification, clinical features, diagnosis, investigations, principles of management and preventive aspects of prolapse of uterus
14.	<b>Benign, Pre-malignant (CIN) and Malignant Lesions of the Cervix</b>	Enumerate the methods for screening and prevention of cancer of cervix including visual inspection with acetic acid (VIA), visual inspection of cervix with Lugol's iodine (VILI), pap smear and colposcopy and LEETZ
15		Classify, describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations and staging of <b>cervical cancer</b>
16		Describe the principles of management of <b>cervical cancer</b> including surgery and radiotherapy
17	<b>Benign and malignant diseases of the uterus and the ovaries</b>	Describe and discuss aetiology, pathology, staging clinical features, differential diagnosis, investigations, staging laparotomy and principles of management of <b>endometrial cancer</b>
18		Describe and discuss etiology, pathology, clinical features, differential diagnosis, investigations, management of <b>Ovarian enlargements</b>
19		Describe and discuss the etiology, pathology, classification, and management of <b>benign ovarian tumors and borderline ovarian tumors.</b>
20		Describe and discuss the etiology, pathology, classification, staging of <b>malignant ovarian tumours</b> , clinical features, differential diagnosis, investigations, principles of management including staging laparotomy
21		Describe and discuss the etiology, pathology, classification, staging of <b>ovarian germ cell tumors</b> , clinical features, differential diagnosis, investigations. Tumor markers and chemotherapy in Ovarian Malignancy
22		Describe and discuss the etiology, pathology, classification, staging, clinical features, differential diagnosis, investigations and management of <b>gestational trophoblastic disease.</b>

23		Describe principles of Radiotherapy, Chemotherapy, Immunotherapy and Gene Therapy in Gynecology
24		Describe and discuss etiology, pathology, clinical features, differential diagnosis, investigations, and principles of management of <b>Vulvar diseases</b> .
25	<b>Urinary problems</b>	Describe urinary continence and disorders of incontinence
26	<b>Genital injuries and fistulae</b>	Describe the causes, prevention, clinical features, principles of management of <b>genitourinary fistulae , vesicovaginal fistulae and genital injuries</b>
27	<b>Menopause</b>	Describe and discuss the physiology of <b>menopause</b> , symptoms, prevention, management.
28		Describe hormones in gynecological practice. Describe and discuss the role of <b>hormone replacement therapy</b> in menopause.
29	<b>Operative Gynaecology</b>	Understand and describe the technique and complications of dilatation and curettage(D&C), EA-ECC Understand and describe the post-operative management of patients and their complications in gynecology.
30		Understand and describe the technique and complications of abdominal hysterectomy and myomectomy
31		Enumerate and describe the indications and steps of common obstetric procedures, technique and complications of <b>vaginal hysterectomy with pelvic floor repair.</b>
32		Principles and indications of Operative Laparoscopy and Hysteroscopy .  Describe the place of Robotic surgery in Gynecology

#### 9th Semester: 24

No	Topic	Lesson Plan
1	<b>Labour</b>	Abnormal Labor and abnormal uterine action
2	<b>Abnormal Lie Malpresentation, Malposition</b>	Mechanism of labor in occipito-posterior presentation
3		Mechanism of labor in face and brow presentation.
4		Mechanism of labor in Breech presentation. Enumerate and describe the indications and steps of <b>assisted breech delivery, external cephalic version</b>
5		Mechanism of labor in shoulder presentation (transverse lie)
6		Diagnosis and management of shoulder dystocia and fetal macrosomia

7		Describe and discuss management of cephalopelvic disproportion, <b>obstructed labour</b> . Causes, diagnosis and management of rupture uterus
8	<b>Complications of the third stage</b>	Enumerate and discuss causes, prevention, diagnosis of <b>postpartum haemorrhage</b> .
9		Medical and surgical Management postpartum hemorrhage
10		Retained and adherent placenta
11		Describe and discuss <b>uterine inversion, amniotic fluid embolism</b> – causes, prevention, diagnosis and management
12		Principles, indications and methods of <b>induction of labor</b>
13	<b>Operative obstetrics</b>	Enumerate and describe the drugs used in pregnancy and their adverse effects. Oxytocic in pregnancy
14	<b>Operative obstetrics</b>	Enumerate and describe the indications and steps of common obstetric procedures, technique and complications: <b>Episiotomy</b>
15		Enumerate and describe the indications and steps of common obstetric procedures, technique and complications: <b>vacuum extraction; low forceps</b> .
16		Principles of trial of labor after cesarean section. Enumerate and describe the indications and steps of common obstetric procedures, technique and complications: <b>Caesarean section</b>
17		Describe and discuss the principles of trial of labour after caesarean section ( <b>TOLAC</b> ).
22		High risk and critical obstetrics and High dependency care in obstetrics
23	<b>Social Obstetrics</b>	Discuss the <b>Janani Shishu Suraksha Karyakram (JSSK)</b> programme
24		Respectful maternity Care , labor room quality improvement initiative (LAQHYA)

## 4.2 Bed Side Clinics

No	Topic	Bed side clinic
1	<b>Diagnosis of pregnancy</b>	Elicit document and present an <b>obstetric history</b> including menstrual history, last menstrual period, previous obstetric history, comorbid conditions, past medical history and surgical history
2		Describe, discuss and demonstrate the <b>clinical features of pregnancy</b> , derive and discuss its differential diagnosis, elaborate the principles underlying and interpret pregnancy tests.
3		Describe, demonstrate, document and perform an <b>obstetrical examination</b> including a general and abdominal examination and clinical monitoring of maternal and fetal well-being;
4	<b>Preconception counselling AND Antenatal Care</b>	Enumerate, describe and discuss the objectives of <b>antenatal care</b> , assessment of period of gestation; screening for high-risk factors. immunization status
5		Assess and counsel a patient in a simulated environment regarding appropriate <b>nutrition in pregnancy</b> Describe and demonstrate clinical monitoring of <b>maternal and fetal well-being</b>
		Describe, discuss and identify <b>pre-existing medical disorders</b> and discuss their management; discuss evidence-based intrapartum care
9	<b>Complications in early pregnancy</b>	Describe the steps and observe/ assist in the performance of an <b>MTP evacuation</b>
10	<b>Antepartum hemorrhage</b>	Define, classify and describe the etiology, pathogenesis, clinical features, ultrasonography, differential diagnosis and management of <b>antepartum hemorrhage</b> in pregnancy
11	<b>Multiple pregnancies</b>	Describe the etiopathology, clinical features; diagnosis and investigations, complications, principles of management of <b>multiple pregnancies</b>
12	<b>Medical Disorders in pregnancy</b>	Define, classify and describe the etiology and pathophysiology of hypertensive disorders of pregnancy, early detection, investigations; principles of management of <b>hypertensive disorders of pregnancy</b> . eclampsia, complications of eclampsia.
13		Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, adverse effects on the mother and fetus and the management during pregnancy and labor, and complications of <b>anemia in pregnancy</b>

14		Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and fetus and the management during pregnancy and labor, and complications of <b>diabetes in pregnancy</b>
15		Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and fetus and the management during pregnancy and labor, and complications of <b>heart diseases in pregnancy</b> .
16		Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of <b>urinary tract infections in pregnancy</b>
17		Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of <b>liver disease in pregnancy</b>
18		Describe and discuss screening, risk factors, management of mother and newborn with <b>HIV</b>
19		Describe the mechanism, prophylaxis, fetal complications, diagnosis and management of <b>isoimmunization in pregnancy</b>
20		Define, describe the causes, pathophysiology, diagnosis, investigations and management of <b>preterm labor, PROM and postdated pregnancy</b> .
21		Observe/ assist in the performance of an <b>artificial rupture of membranes</b>
22	<b>Abnormal Lie and Presentation; Maternal Pelvis</b>	Enumerate and discuss the diameters of <b>maternal pelvis</b> and types .Fetal skull.
23		Define and describe <b>obstructed labor</b> , its clinical features; prevention; and management
24		Describe and discuss <b>rupture uterus</b> , causes, diagnosis and management.
25		Describe and discuss the classification; diagnosis; management of <b>abnormal labor</b>
26		Observe and assist in the performance of an <b>episiotomy</b> and demonstrate the correct suturing technique of an episiotomy in a simulated environment. Observe/Assist in operative obstetrics cases – including - <b>CS, Forceps, vacuum extraction, and breech delivery</b>
27	<b>Complications of the third stage</b>	Enumerate and discuss causes, prevention, diagnosis, management, appropriate use of blood and blood products in <b>postpartum haemorrhage</b> .
28		Describe and discuss <b>uterine inversion, amniotic fluid embolism</b> – causes, prevention, diagnosis and management.

29	IUGR	Describe and discuss causes, clinical features, diagnosis, investigations; monitoring of fetal well-being, including ultrasound and fetal Doppler; principles of management; prevention and counselling in <b>intrauterine growth retardation</b>
30	<b>Normal and abnormal puerperium.</b>	Describe and discuss the physiology of puerperium, its complications, diagnosis and management; counselling for contraception, <b>puerperal sterilization</b>
31	<b>Contraception</b>	Describe and discuss the temporary and permanent methods of <b>contraception</b> , indications, technique and complications; selection of patients, side effects and failure rate including Ocs, male contraception, emergency contraception and IUCD
32	<b>Vaginal discharge</b>	Describe and discuss the etiology (with special emphasis on Candida, T. vaginalis, bacterial vaginosis), characteristics, clinical diagnosis, investigations, genital hygiene, management of common causes and the syndromic management
33	<b>Normal and abnormal puberty</b>	Describe and discuss the physiology of puberty, features of <b>abnormal puberty</b> , common problems and their management
34	<b>Infertility</b>	Describe and discuss the common causes, pathogenesis, clinical features, differential diagnosis; investigations; principles of management of <b>infertility</b> – methods of tubal patency, ovulation induction, assisted reproductive techniques
35	<b>Uterine fibroids</b>	Describe and discuss the etiology; pathology; clinical features; differential diagnosis; investigations; principles of management, complications of <b>fibroid</b> uterus
36	<b>Uterine prolapse</b>	Describe and discuss the etiology, classification, clinical features, diagnosis, investigations, principles of management and preventive aspects of <b>prolapse</b> of uterus
37	<b>Menopause</b>	Describe and discuss the physiology of <b>menopause</b> , symptoms, prevention, management and the role of hormone replacement therapy
38		Enumerate the causes of <b>postmenopausal bleeding</b> and describe its management
39	<b>Benign, Pre-malignant (CIN) and Malignant Lesions of the Cervix</b>	Classify, describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations and staging of <b>cervical cancer</b>
40		Describe the principles of management including surgery and radiotherapy of Benign, Pre-malignant (CIN) and Malignant Lesions of the Cervix

		Enumerate the methods to prevent cancer of cervix including visual inspection with acetic acid (VIA), visual inspection of cervix with Lugol's iodine (VILI), pap smear and colposcopy
41	<b>Benign and malignant diseases of the uterus and the ovaries</b>	Describe and discuss aetiology, pathology, staging clinical features, differential diagnosis, investigations, staging laparotomy and principles of management of endometrial cancer
42	<b>Obstetrics &amp; Gynecological skills - I</b>	Obtain a logical sequence of history, and perform a humane and thorough clinical examination, excluding internal examinations (per- rectal and per-vaginal)
43		Arrive at a logical provisional diagnosis after examination.
44		Recognize situations, which call for urgent or early treatment at secondary and tertiary centres and make a prompt referral of such patients after giving first aid or emergency treatment.
45		Demonstrate interpersonal and communication skills befitting a physician in order to discuss illness and its outcome with patient and family
46		Determine gestational age, EDD and obstetric formula
47		Demonstrate ethical behavior in all aspects of medical practice
48		Obtain informed consent for any examination / procedure
49		Write a complete case record with all necessary details
50		Write a proper discharge summary with all relevant information
51		Write a proper referral note to secondary or tertiary centres or to other physicians with all necessary details.
52	<b>Obstetrics &amp; Gynecological skills - II</b>	Plan and institute a line of treatment, which is need based, cost effective and appropriate for common conditions taking into consideration (a) Patient (b) Disease (c) Socio-economic status (d) Institution/ Governmental guidelines.
53		Organise antenatal, postnatal, well-baby and family welfare clinics
54		Demonstrate the correct technique of punch biopsy of cervix in a simulated/ supervised environment

55	<b>Obstetrics &amp; Gynecological skills - III</b>	Observe and assist in the performance of a Caesarean section
56		Observe and assist in the performance of Laparotomy
57		Observe and assist in the performance of Hysterectomy – abdominal/vaginal
58		Observe and assist in the performance of Dilatation & Curettage (D&C)
59		Observe and assist in the performance of Endometrial aspiration - endocervical curettage (EA-ECC)
60		Observe and assist in the performance of outlet forceps application, of vacuum and breech delivery
61		Observe and assist in the performance of MTP in the first trimester and evacuation in incomplete abortion
62	<b>Should observe</b>	Laparoscopy
63		Hysteroscopy
64		Lap sterilization
65		Assess the need for and issue proper medical certificates to patients for various purposes

#### 4.3 Tutorial (Small group discussion / DOAP Video, Model)

No	Topic	Tutorial
1	<b>Antenatal Care</b>	Describe, demonstrate, document and perform an obstetrical examination including a general and abdominal examination and clinical monitoring of maternal and fetal well-being;
2		Describe and demonstrate clinical monitoring of maternal and fetal well-being
3		Describe and demonstrate pelvic assessment in a model
4		Assess and counsel a patient in a simulated environment regarding appropriate nutrition in pregnancy
5		Describe the steps and observe/ assist in the performance of an MTP evacuation
6	<b>Labour</b>	Enumerate and discuss the physiology of normal labor, mechanism of labor in occipito-anterior presentation; monitoring of labor including partogram; conduct of labor, pain relief; principles of induction and acceleration of labor; management of third stage of labor.

7		Observe/ assist in the performance of an artificial rupture of membranes
8		Demonstrate the stages of normal labor in a simulated environment / mannequin and counsel on methods of safe abortion
9		Observe and assist the conduct of a normal vaginal delivery
10	<b>Abnormal Lie and Presentation; Maternal Pelvis</b>	Enumerate and discuss the diameters of maternal pelvis and types . Fetal skull.
11		Define and describe obstructed labor, its clinical features; prevention; and management
12		Describe and discuss rupture uterus, causes, diagnosis and management.
13		Observe and assist in the performance of an episiotomy and demonstrate the correct suturing technique of an episiotomy in a simulated environment. Observe/Assist in operative obstetrics cases – including - CS, Forceps, vacuum extraction, and breech delivery
14		Counsel in a simulated environment, care of the breast, importance and the technique of breast feeding
15		Demonstrate the steps of neonatal resuscitation in a simulated environment
16		Counsel in a simulated environment, contraception and puerperal sterilisation
17		Observe/ assist in the performance of tubal ligation
18		Enumerate the indications for, describe the steps in and insert and remove an intrauterine device in a simulated environment
19		In a simulated environment administer informed consent to a person wishing to undergo Medical Termination of Pregnancy
20		Describe and demonstrate the screening for cervical cancer in a simulated environment
21		Operative Gynaecology : Understand and describe the technique and complications: Dilatation & Curettage (D&C); EA-ECC; cervical biopsy; abdominal hysterectomy; myomectomy; surgery for ovarian tumours; staging laparotomy; vaginal hysterectomy including pelvic floor repair; Fothergill's operation, Laparoscopy; hysteroscopy; management of postoperative complications
22		Demonstrate the correct use of appropriate universal precautions for self-protection against HIV and hepatitis and counsel patients
23		Obtain a PAP smear in a stimulated environment
24		Demonstrate the correct technique to perform artificial rupture of membranes in a simulated / supervised environment

25		Demonstrate the correct technique to perform and suture episiotomies in a simulated/ supervised environment
26		Demonstrate the correct technique to insert and remove an IUD in a simulated/ supervised environment
27		Diagnose and provide emergency management of antepartum and postpartum hemorrhage in a simulated / guided environment
28		Demonstrate the correct technique of urinary catheterization in a simulated/ supervised environment

#### 4.4 List of topics for Integrated Teaching

1. Development of genital tract - any malformations of genital tract and their clinical significance - Anatomy
2. Fetal physiology - fetal circulation Physiology
3. Fetal malformations - genesis- Embryology
4. Community Medicine- Demography
5. Pathology and Transfusion Medicine: Blood Transfusion
6. Microbiology: Infections in pregnancy
7. Forensic medicine : MTP/PCPNDT
8. Pharmacology : Teratogenic drugs in pregnancy
9. Pathology: Premalignant lesions
10. Medicine : Anemia, heart disease
11. Surgery: Principles of suturing
12. Pediatrics : Genetic counseling
13. Anesthesia: Basic resuscitation in the labor room
14. Radiodiagnosis : Ultrasonography
15. Skin and VD : Sexually Transmitted infections
16. Psychiatry :Adolescent and Menopause health
17. Physiotherapy : Nutrition and prenatal exercises

#### 4.5 Labour Room skills (observe/ assist /perform )

1. Informed consent
2. Monitoring of normal labour
3. Artificial rupture of membranes
4. Conduct of normal labour
5. Episiotomy
6. Forceps and Vacuum assisted vaginal deliveries
7. Assisted breech vaginal delivery
8. Active Management of third stage of labour (AMTSL)

9. PPIUCD
10. Puerperium (Breast feeding counselling, Puerperal sterilization)
11. Obstructed labour, Ruptured uterus.
12. Neonatal resuscitation
13. Preterm labour, PROM
14. Cervical cerclage
15. Informed consent for MTP
16. MTP evacuation, Incomplete Abortion
17. Caesarean section
18. Universal precautions

## 5.0 Assessment Plan

	IV (A)	VI (B)	VIII (C)	IX Pre-professional (D)	<b>Internal Assessment (1)</b> (A+B+C+D)/2	<b>Final Professional (2)</b>	<b>Total (1+2)</b>
<b>Practical</b>	25	25	30	80	80	120	200
<b>Theory</b>		30	50	80	80	120	200

The internal assessment exams will be conducted at regular intervals during the tenure of the student. The exams will assess the progressively gained knowledge and skills by the student.

The details of the pattern of the practical and theory examinations are as given below.

### Practical: Internal assessment

	<b>IV (25 marks)</b>	<b>VI (25 marks)</b>	<b>VIII (30 marks)</b>	<b>IX (80 marks)</b>
Pattern of exam	OSCE, 5 marks each	Obstetric case: 15 Gynecology viva :5 Family welfare viva : 5	Obstetric case: 15 Gyn case: 10 Viva: 5	Obstetric long case: 40 Gyn short case :20 Viva: 15 Log Book: 5

### Theory : Internal assessment

	<b>VI (30 marks)</b>	<b>VIII (50 marks)</b>	<b>IX (80 marks)</b> <b>2 papers, 40 marks each</b>
Pattern of exam	MCQ (20) ½ mark each : 10 marks SAQ (5), 4 mark each: 20 marks	MCQ (20) ½ mark each : 10 marks SAQ (5), 4 marks each: 20 marks LAQ(2), 10 marks each:20 marks	<b>Paper I: Obstetrics and Neonatology</b> SAQ (5), 4 marks each: 20 marks LAQ(2), 10 marks each:20 marks <b>Paper II: Gynecology and Family welfare</b> SAQ (5), 4 marks each: 20 marks LAQ(2), 10 marks each:20 marks

Final Professional Exam:

	<b>Practical (80)</b>	<b>Theory (80)</b>
Pattern of exam	Obstetrics Long case: 40 marks Gynecology Short case: 20 marks Viva: 20 marks	<b>Paper I: Obstetrics and Neonatology</b> SAQ (5), 4 marks each: 20 marks LAQ(2), 10 marks each:20 marks <b>Paper II: Gynecology and Family welfare</b> SAQ (5), 4 marks each: 20 marks LAQ(2), 10 marks each:20 marks

## 6.0 Recommended Books:

### 6.1 Text Books

1. Holland and Brews Manual of Obstetrics– by Murlidhar Pai, Prahalad Kushtagi, Shrish Daftary
2. Howkins & Bourne, Shaw's Textbook of Gynecology by Suensh Kumar, Shirish Daftari & V.Padubidri
3. DC Dutta's Textbook of Obstetrics by Hiralal Konar
4. DC Dutta's Textbook of Gynecology by Hiralal Kona
5. Text Book Of Obstetrics by Sheila Balakrishnan
6. Textbook of Gynaecology by Sheila Balakrishnan
7. Mudaliar and Menon's Clinical Obstetrics by Sarala Gopalan, Dr. S.Rathnakumar, Dr. Vanita Jain

### 6.2 Reference Books:

1. Williams Obstetrics, by F. Gary Cunningham (Author), Kenneth Leveno (Author), Steven Bloom (Author)
2. Jeffcoate's Principles of Gynaecology by Malhotra Narendra
3. Ian Donald's Practical Obstetrics Problems, by Renu Misra
4. Arias' Practical Guide to High-Risk Pregnancy and Delivery: A South Asian Perspective by Fernando Arias (Editor), Amarnath G Bhide (Editor), Arulkumaran S (Editor), Kaizad Damania (Editor), Shirish N Daftary
5. Dewhurst's Textbook of Obstetrics & Gynaecology, Keith Edmonds (Editor-in-Chief), Christoph Lees (Co Editor), Tom Bourne (Co-Editor)