REGULATIONS AND CURRICULUM GOVERNING

MS OBG PROGRAM

(2024-25)

Name of the Constituent Unit/Centre: Yenepoya Medical College



YENEPOYA

Deemed to be University

Deralakatte, Mangalore, Karnataka.

NOTIFICATION FROM THE UNIVERSITY

YENEPOYA
(DEEMED TO BE UNIVERSITY)
Recognized under Sec 3(A) of the UGC Act 1956
Accredited by NAAC with 'A' Grade

NOTIFICATION – 34-ACM/2019 dtd. 20.02.2019

Sub:- Implementation of Competency Based Medical Education PG Curriculum

Ref. : Resolution of the Academic Council at its 34th Meeting held on 08.02.2019 vide Agenda 33

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The Academic Council at its 34th Meeting held on 08.02.2019 and subsequently the 45th meetings of Board of Management held on 09.02.2019 have accepted the proposal for implementation of Competency Based Medical Education (CBME) for the PG Curricula of the following programs as per the MCI Norms.

1. MD in Pathology
2. MD in General Medicine
3. MD in Anaesthesiology
4. MD in Paediatrics
5. MD in Respiratory Medicine
6. MD in Radio-diagnosis
7. MD in Anatomy
8. MD in Physiology
9. MD in Biochemistry
10. MD in Microbiology
11. MD in Pharmacology
12. MD in Forensic Medicine
13. MD in Psychiatry
14. MD in Dermatology
15. MD in Community Medicine
16. MS in General Surgery
17. MS in OBG
18. MS in Otorhinolaryngology
19. MS in Ophthalmology
20. MS in Orthopaedics

This revised curriculum shall come into effect from the academic year 2019-2020 onwards.

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YENEPOYA
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MS IN OBSTETRICS AND GYNAECOLOGY

Preamble:

The purpose of PG education is to create specialists who would provide high quality health care and advance the cause of science through research & training.

The purpose of MS Obstetrics and Gynaecology is to standardize Obstetrics & Gynaecology teaching at Postgraduate level throughout the country so that it will benefit in achieving uniformity in undergraduate teaching as well and resultantly creating competent Obstetrician and Gynaecologist with appropriate expertise.

The purpose of this document is to provide teachers and learners illustrative guidelines to achieve defined outcomes through learning and assessment. This document was prepared by various subject-content specialists. The Reconciliation Board of Academic Committee has attempted to render uniformity without compromise to purpose and content of the document. Compromise in purity of syntax has been made in order to preserve the purpose and content. This has necessitated retention of "domains of learning" under the heading "competencies".

SUBJECT SPECIFIC LEARNING OBJECTIVES

Programme Objectives

The **goal** of the MS course in Obstetrics and Gynaecology is to produce a competent Obstetrician and Gynaecologist who can:

a. Provide quality care to the community in the diagnosis and management of Antenatal, Intra-natal and Post-natal period of normal and abnormal pregnancy and labor.
b. provide effective and adequate care to a pregnant woman with complicated pregnancy.
c. provide effective and adequate care to a normal and high risk neonate.
d. perform obstetrical ultrasound in normal and abnormal pregnancy including Doppler.
e. manage effectively all obstetrical and gynecological emergencies and if necessary make appropriate referrals.
f. provide quality care to the community in the diagnosis and management of gynecological problems including screening, and management of all gynecological cancers including during pregnancy.
g. conduct a comprehensive evaluation of infertile couple and have a broad based knowledge of assisted reproductive techniques including – ovulation induction, *in vitro* fertilization and intra-cytoplasmic sperm injection, gamete donation, surrogacy and the legal and ethical implications of these procedures.
h. provide counseling and delivery of fertility regulation methods including reversible and irreversible contraception, emergency contraception etc.
i. provide quality care to women having spontaneous abortion or requesting

Medical Termination of Pregnancy (MTP) and manage their related complications.

SUBJECT SPECIFIC COMPETENCIES

A. Cognitive Domain

At the end of the MS Course in Obstetrics and Gynaecology, the student should have acquired knowledge in the following:

- recognizes the health needs of women and adolescents and carries out professional obligations in keeping with principles of National Health Policy and professional ethics
- has acquired the competencies pertaining to Obstetrics and Gynaecology that are required to be practiced in the community and at all levels of health system
- on genetics as applicable to Obstetrics.
- on benign and malignant gynecological disorders.
- on Gynecological Endocrinology and infertility.
- on interpretation of various laboratory investigations and other diagnostic modalities in Obstetrics & Gynecology.
- on essentials of Pediatric and adolescent Gynecology.
- on care of postmenopausal women and geriatric Gynecology.
- on elementary knowledge of female breast & its diseases.
- on vital statistics in Obstetrics & Gynecology.
- Anesthesiology related to Obstetrics & Gynecology.
- Reproductive and Child Health, family welfare & reproductive tract infections.
- STD and AIDS & Government of India perspective on women's health related issues.
- Medico-legal aspects in Obstetrics & Gynecology.
- Asepsis, sterilization and disposal of medical waste.
- be able to effectively communicate with the family and the community
- is aware of the contemporary advances and developments in medical sciences as related to Obstetrics and Gynaecology.

- maintain medical records properly and know the medico-legal aspects in respect of Obstetrics & Gynecology
- Understands the difference between audit and research and how to plan a research project and demonstrate the skills to critically appraise scientific data and literature
- has acquired skills in educating medical and paramedical professionals

Ethical and Legal Issues:

The post graduate student should understand the principles and legal issues surrounding informed consent with particular awareness of the implication for the unborn child, postmortem examinations consent to surgical procedures including tubal ligation/vasectomy, parental consent and medical certification, research and teaching and properly maintain medical records.

Risk Management:

The post graduate student should demonstrate a working knowledge of the principles of risk management and their relationship to clinical governance and complaints procedures.

Confidentiality:

The post graduate student should:

- be aware of the relevant strategies to ensure confidentiality and when it might be broken.
- understand the principles of adult teaching and should be able to teach common practical procedures in Obstetrics and Gynaecology and involved in educational programme in Obstetrics and Gynaecology for medical and paramedical staff.
- be abreast with all recent advances in Obstetrics and Gynaecology and practice evidence based medicine.

Use of information technology, audits and standards:

The post graduate student should:

- acquire a full understating of all common usage of computing systems including the principles of data collection, storage, retrieval, analysis and presentation.
- understand quality improvement and management and how to perform, interpret and use of clinical audit cycles and the production and application of clinical standards, guidelines and protocols.
- understand National Health Programmes related to Obstetrics and Gynaecology and should be aware of all the Acts and Laws related to specialty.

Health of Adolescent Girls and Post-Menopausal Women

The student should:

- Recognize the importance of good health of adolescent and postmenopausal women.
- Identification and management of health problems of post-menopausal women.
- Understanding and planning and intervention program of social, educational and health needs of adolescent girls and menopausal women.
- Education regarding rights and confidentiality of women's health, specifically related to reproductive function, sexuality, contraception and safe abortion.
- Geriatric problems.

Reproductive Tract and 'HIV' Infection

- Epidemiology of RTI and HIV infection in Indian women of reproductive age group.
- Cause, effect and management of these infections.
- HIV infections in pregnancy, its effects and management.
- Relationship of RTI and HIV with gynaecological disorders.
- Planning and implementation of preventive strategies.

Medico-legal Aspects

- Knowledge and correct application of various Acts and Laws while practicing Obstetrics and Gynaecology, particularly MTP Act and sterilization, Preconception and P.N.D.T. Act.
- Knowledge of importance of proper recording of facts about history, examination findings, investigation reports and treatment administered in all patients.
- Knowledge of steps recommended for examination and management of rape cases.
- Knowledge of steps taken in the event of death of a patient.

B. Affective domain

1. Should be able to function as a part of a team, develop an attitude of cooperation with colleagues, and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.
2. Always adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health personnel and to respect the rights of the patient including the right to information and second opinion.
3. Develop communication skills to word reports and professional opinion as well as to interact with patients, relatives, peers and paramedical staff, and for effective teaching.

C. Psychomotor domain

At the end of the course, the student should acquire following clinical & operative skills and be able to:

Operative Skills in Obstetrics and Gynaecology

- Adequate proficiency in common minor and major operations, post-operative management and management of their complications.
- Operative procedures which must be done by P G students during training period: ***(in graded manner - assisting, operating with senior person assisting, operating under supervision)***

(Operations MUST BE DONE/OBSERVED during PG training programme and log book maintained)

1. **Obstetrics:** Venesection, culdocentesis

   Conduct normal deliveries Episiotomy and its repair

   - Application of forceps and ventouse (10).
   - Carry out caesarian section delivery (10 must be done)
   - Manual removal of placenta
   - Management of genital tract obstetrical injuries.
   - Post partum sterilization/Minilap tubal ligation (20 must be done)
   - Medical termination of pregnancy - various methods (20 must be done)

2. **Gynaecology:** Endometrial / cervical biopsy.

   Dilatation and curettage Coldocentesis, Colpotomy

   - Opening and closing of abdomen (10 must be done)
   - Operations for pelvic organ prolapse
   - Ovarian cyst operation
   - Operation for ectopic pregnancy
   - Vaginal and abdominal hysterectomy

Operations must be OBSERVED and/or ASSISTED when possible:

- Internal podalic version
- Caesarean Hysterectomy
- Internal iliac artery ligation
- Destructive obstetrical operations
- Tubal microsurgery
- Radical operations for gynaec malignancies
- Repair of genital fistulae

- Operations for incontinence
- Myomectomy, Laparoscopic and hysteroscopic surgery

Diagnostic Procedures

- Interpretation of x-rays - Twins, common fetal malformations / mal-presentations, abnormal pelvis (pelvimetry), Hysterosalpingography
- Sonographic pictures at various stages of pregnancy - normal and abnormal pregnancies, Fetal biophysical profile, common gynaecological pathologies.
- Amniocentesis
- Fetal surveillance methods - Electronic fetal monitoring and its interpretation
- Post-coital test
- Pap Smear
- Colposcopy
- Endoscopy - Laparo and Hystero-scopy.

Health of Adolescent Girls and Post-Menopausal Women

- Provide advice on importance of good health of adolescent and postmenopausal women.
- Identification and management of health problems of post-menopausal women.
- Planning and intervention program of social, educational and health needs of adolescent girls and menopausal women.
- Provide education regarding rights and confidentiality of women's health, specifically related to reproductive function, sexuality, contraception and safe abortion.
- Provide advice on geriatric problems.

Reproductive Tract and 'HIV' Infection

- Provide advice on management of RTI and HIV infections in Indian women of

reproductive age group.

- Provide advice on management of HIV infections in pregnancy, relationship of RTI and HIV with gynaecological disorders.
- Planning and implementation of preventive strategies.

Medico-legal Aspects

- Correct application of various Acts and Laws while practicing obstetrics and gynaecology, particularly MTP Act and sterilization, Preconception and P.N.D.T. Act.
- Implement proper recording of facts about history, examination findings, investigation reports and treatment administered in all patients.
- Implement the steps recommended for examination and management of rape cases.
- Follow proper procedures in the event of death of a patient.

Environment and Health

- Follow proper procedures in safe disposal of human body fluids and other materials.
- Follow proper procedures and universal precautions in examination and surgical procedures for the prevention of HIV and other diseases.

SYLLABUS

Course Contents:

Paper I

1. Basic Sciences

-Normal and abnormal development, structure and function (female and male) urogenital system and female breast.

-Applied Anatomy of genito-urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall, upper thigh (inguinal ligament, inguinal canal, vulva, rectum and anal canal).

-Physiology of spermatogenesis.

-Endocrinology related to male and female reproduction (Neurotransmitters).

-Anatomy and physiology of urinary and lower GI (Rectum / anal canal) tract.

-Development, structure and function of placenta, umbilical cord and amniotic fluid.

-Anatomical and physiological changes in female genital tract during pregnancy.

-Anatomy of fetus, fetal growth and development, fetal physiology and fetal circulation.

- Physiological and neuro-endocrinal changes during puberty, adolescence, menstruation, ovulation, fertilization, climacteric and menopause.

-Biochemical and endocrine changes during pregnancy, including systemic changes in cardiovascular, hematological, renal hepatic, renal, hepatic and other systems.

-Biophysical and biochemical changes in uterus and cervix during pregnancy and labor.

-Pharmacology of identified drugs used during pregnancy, labour, post-partum period in reference to their absorption, distribution, excretion, (hepatic) metabolism, transfer of the drugs across the placenta, effect of the drugs (used) on labor, on fetus, their excretion through breast milk.

-Mechanism of action, excretion, metabolism of identified drugs used in the management of Gynaecological disorder.

-Role of hormones in Obstetrics and Gynaecology.

-***Markers in Obstetrics & Gynaecology*** - Non-neoplastic and neoplastic diseases

-Pathophysiology of ovaries, fallopian tubes, uterus, cervix, vagina and external genitalia in healthy and diseased conditions.

-Normal and abnormal pathology of placenta, umbilical cord, amniotic fluid and fetus.

-Normal and abnormal microbiology of genital tract. Bacterial, viral and parasitical infections responsible for maternal, fetal and gynaecological disorders.

-Humoral and cellular immunology in Obstetrics & Gynaecology.

-Gametogenesis, fertilization, implantation and early development of embryo.

-Normal Pregnancy, physiological changes during pregnancy, labor and pauperism.

-Immunology of pregnancy.

-Lactation.

2. Medical Genetics

- Basic medical genetics including cytogenetics.
- Pattern of inheritance
- Chromosomal abnormalities - types, incidence, diagnosis, management and recurrence risk.
- General principles of Teratology.
- Screening, counseling and prevention of developmental abnormalities.
- Birth defects - genetics, teratology and counseling.

Paper II

Clinical obstetrics

1. Antenatal Care:

-Prenatal care of normal pregnancy including examination, nutrition, immunization and follow up.

-Identification and management of complications and complicated of pregnancy –

abortion, ectopic pregnancy, vesicular mole, Gestational trophoblastic Diseases, hyperemesis gravidarum, multiple pregnancy, antipartum hemorrhage, pregnancy induced hypertension, preeclampsia, eclampsia, Other associated hypertensive disorders, Anemia, Rh incompatibility, diabetes, heart disease, renal and hepatic diseases, preterm - post term pregnancies, intrauterine fetal growth retardation,

-Neurological, hematological, dermatological diseases, immunological disorders and other medical and surgical disorders/problems associated with pregnancy, Multiple pregnancies, Hydramnios, Oligoamnios.

-Diagnosis of contracted pelvis (CPD) and its management.

-High-risk pregnancy

- Pregnancy associated with complications, medical and surgical problems.
- Prolonged gestation.
- Preterm labor, premature rupture of membranes.
- Blood group incompatibilities.
- Recurrent pregnancy wastage.

- Evaluation of fetal and maternal health in complicated pregnancy by making use of diagnostic modalities including modern once (USG, Doppler, Electronic monitors) and plan for safe delivery for mother and fetus. Identifying fetus at risk and its management. Prenatal diagnostic modalities including modern ones.
- Infections in pregnancy (bacterial, viral, fungal, protozoan)
  - Malaria, Toxoplasmosis.
  - Viral – Rubella, CMV, Herpes, HIV, Hepatic viral infections (B, C etc)
  - Sexually Transmitted Infections (STDs)
  - Mother to fetal transmission of infections.
- Identification and management of fetal malpositions and malpresentations.
- Management of pregnancies complicated by medical, surgical (with other specialties as required) and gynecological diseases.
  - Anemia, hematological disorders

- Respiratory, Heart, Renal, Liver, skin diseases.
- Gastrointestinal, Hypertensive, Autoimmune, Endocrine disorders.
- Associated Surgical Problems.

  Acute Abdomen (surgical emergencies - appendicitis and GI emergencies). Other associated surgical problems.
- Gynaecological disorders associate with pregnancy - congenital genital tract developmental anomalies, Gynaec pathologies - fibroid uterus, Ca Cx, genital prolapse etc.
- Prenatal diagnosis (of fetal problems and abnormalities), treatment – Fetal therapy
- M.T.P, PC & P.N.D.T Act etc
- National health MCH programs, social obstetrics and vital statistics
- Recent advances in Obstetrics.

2. Intra-partum care:

- Normal labor - mechanism and management.
- Partographic monitoring of labor progress, recognition of abnormal labor and its appropriate management.
- Identification and conduct of abnormal labor and complicated delivery - breech, forceps delivery, caesarian section, destructive operations.
- Induction and augmentation of labor.
- Management of abnormal labor - Abnormal pelvis, soft tissue abnormalities of birth canal, mal-presentation, mal-positions of fetus, abnormal uterine action, obstructed labor and other dystocias.
- Analgesia and anaesthesia in labor.
- Maternal and fetal monitoring in normal and abnormal labor (including electronic fetal monitoring).
- Identification and management of intrapartum complications, Cord presentation, complication of 3rd stage of labor - retained placenta, inversion of uterus, rupture of

uterus, post partum hemorrhage.

3. Post Partum

-Complication of 3rd stage of labor retained placenta, inversion of uterus, post partum hemorrhage, rupture of uterus, Management of primary and secondary post-partum hemorrhage, retained placenta, uterine inversion. Post-partum collapse, amniotic fluid embolism

-Identification and management of genital tract trauma - perineal tear, cervical/vaginal tear, episiotomy complications, rupture uterus.

-Management of critically ill woman.

-Post partum shock, sepsis and psychosis.

-Postpartum contraception.

Breast feeding practice; counseling and importance of breast-feeding. Problems in breast-feeding and their management, Baby friendly practices.

-Problems of newborn - at birth (resuscitation), management of early neonatal problems.

-Normal and abnormal purpureum - sepsis, thrombophlebitis, mastitis, psychosis.

Hematological problems in Obstetrics including coagulation disorders. Use of blood and blood components/products.

4. Operative Obstetrics:

- Decision-making, technique and management of complications.
- Vaginal instrumental delivery, Caesarian section, Obst. Hysterectomy, destructive operations, manipulations (External/internal podalic version, manual removal of placenta etc)
- Medical Termination of Pregnancy - safe abortion - selection of cases, technique and management of complication. MTP law.

5. New Born

1. Care of new born: Normal and high risk new born (including NICU care).
2. Asphyxia and neonatal resuscitation.
3. Neonatal sepsis - prevention, detection and management.
4. Neonatal hyper - bilirubinemia - investigation and management.
5. Birth trauma - Detection and management.
6. Detection and management of fetal/neonatal malformation.
7. Management of common neonatal problems.

Paper III

Clinical Gynaecology and Fertility Regulation

- Epidemiology and etiopathogenesis of gynaecological disorders.
- Diagnostic modalities and management of common benign and malignant gynaecological diseases (diseases of genital tract):
  - Fibroid uterus
  - Endometriosis and adenomyosis Endometrial hyperplasia
  - Genital prolapse (uterine and vaginal)
  - Cervical erosion, cervicitis, cervical polyps, cervical neoplasia. Vaginal cysts, vaginal infections, vaginal neoplasia (VIN) Benign Ovarian pathologies
  - Malignant genital neoplasia - of ovary, Fallopian tubes, uterus, cervix, vagina, vulva and Gestational Trophoblastic diseases, Cancer Breast.
- Diagnosis and surgical management of clinical conditions related to congenital malformations of genital tract. Reconstructive surgery in gynaecology.
- Intersex, ambiguous sex and chromosomal abnormalities.
- Reproductive endocrinology: Evaluation of Primary/secondary Amenorrhea, management of Hyperprolactinemia, Hirsutism, Chronic an-ovulation, PCOD, thyroid and other endocrine dysfunctions.
- Infertility - Evaluation and management
  - Methods of Ovulation Induction

- Tubal (Micro) surgery
- Management of immunological factors of Infertility
- Male infertility
- Obesity and other Infertility problems.
- **(Introductory knowledge of)** Advanced Assisted Reproductive Techniques (ART)

- Reproductive tract Infections: prevention, diagnosis and treatment.
  - STD
  - HIV
  - Other Infections
  - Genital Tuberculosis.
- Principles of radiotherapy and chemotherapy in gynaecological malignancies. Choice, schedule of administration and complications of such therapies.
- Rational approach in diagnosis and management of endocrinal abnormalities such as: menstrual abnormalities, amenorrhea (primary/secondary), dysfunctional uterine bleeding, polycystic ovarian disease, hyperprolactinemia (galoctorrhea), hyperandrogenism, thyroid - pituitary - adrenal disorders, menopause and its treatment (HRT).
- Urological problems in Gynaecology - Diagnosis and management.
  - Urinary tract infection
  - Urogenital Fistulae
  - Incontinence
  - Other urological problems
- Orthopedic problems in Gynaecology.
- Menopause: management (HRT) and prevention of its complications.
- Endoscopy (Laparoscopy - Hysteroscopy)
  - Diagnostic and simple therapeutic procedures (PG students must be trained to do these procedures)
  - Recent advances in gynaecology - Diagnostic and therapeutic
  - Pediatric, Adolescent and Geriatric Gyanecology

- **Introduction to Advance Operative procedures. Operative Gynaecology**
- Abdominal and Vaginal Hysterectomy
- Surgical Procedures for genital prolapse, fibromyoma, endometriosis, ovarian, adenexal, uterine, cervical, vaginal and vulval pathologies.
- Surgical treatment for urinary and other fistulae, Urinary incontinence
- Operative Endoscopy

Family Welfare and Demography

- Definition of demography and its importance in Obstetrics and Gynaecology.
- Statistics regarding maternal mortality, perinatal mortality/morbidity, birth rate, fertility rate.
- Organizational and operational aspects of National health policies and programs, in relation to population and family welfare including RCH.
- Various temporary and permanent methods of male and female contraceptive methods.
- Knowledge of in contraceptive techniques (including recent developments).
    1. Temporary methods
    2. Permanent Methods.
    3. Recent advances in contraceptive technology
- Provide adequate services to service seekers of contraception including follow up.
- Medical Termination of Pregnancy: Act, its implementation, providing safe and adequate services.
- Demography and population dynamics.
- Contraception (fertility control)

Male and Female Infertility

- History taking, examination and investigation.
- Causes and management of male infertility.
- Indications, procedures of Assisted Reproductive Techniques in relation to male

infertility problems.

Paper IV

Recent Advances in Obstetrics & Gynaecology

- Preimplantation Genetics Diagnosis, ethics and counselling, fetal surgeries and gene therapy, newer strategies in aneuploidy screening and diagnosis, fetal imaging.

- Recent advances in evaluation , ethics , regulatory laws and management of infertility including immunological therapies, ART, donor gamete and embryo cryopreservation.

- Screening / prediction of common obstetric and gynaecological disorders and preventive modalities, outcomes of recent trials of drugs and surgeries.

- Immunology of pregnancy complications and management, female sexuality , cosmetic gynecology including medico-legal aspects, intersex and gender affirming treatment and surgeries, adolescent and geriatric gynaecology, urogynecology.

- Recent trials/ guidelines in screening, prevention and management of gynaecological malignancy.

- Newer applications of laparoscopic/ robotic and hysteroscopic surgeries in obstetrics and gynaecology, non invasive ablative treatment modalities.

TEACHING AND LEARNING METHODS

Postgraduate Training

Teaching methodology should be imparted to the students through:

- Lectures, seminars, symposia, Inter- and intra- departmental meetings (clinic-pathological, Radio-diagnosis, Radiotherapy, Anaesthesia, Pediatrics/ Neonatology), Reproductive Medicine, maternal morbidity/mortality meetings and journal club. ***Records of these are to be maintained by the department.***
- By encouraging and allowing the students to attend and actively participate in CMEs, Conferences by presenting papers.
- Maintenance of log book: Log books shall be checked and assessed periodically by the faculty members imparting the training.
- Writing thesis following appropriate research methodology, ethical clearance and good clinical practice guidelines.
- The postgraduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.
- A Postgraduate student of a degree course in broad speciality/super specialty will do at least one of the following make him/her eligible to appear in his/her final examination.
  - Poster presentation at a National/Zonal/State Conference of his/her speciality.
  - Podium presentation at a National/Zonal/State Conference of his/her speciality.
  - Have one research paper published/accepted for publication in journal of his/her speciality as first author.
- Department should encourage e-learning activities.

Practical and Clinical Training

- Emphasis should be self learning, group discussions and case presentations.
- Student should be trained about proper History taking, Clinical examination, advising / ordering relevant investigations, their interpretation and instituting medical / surgical management by posting students in OPD, specialty clinics, wards, operation theaters, Labor room, family planning clinics and other departments like neonatology, radiology/ radiotherapy, Anaesthesia, Reproductive Medicine and Oncology. Students should be able to perform and interpret ultra - sonography in Obstetrics and Gynaecology, NST, Partogram

Rotations:

- Details of 3 years posting in the PG programme (6 terms of 6 months each)

a. Allied posts should be done during the course *– for 8 weeks*

i.	Neonatology	- 2 weeks
ii.	Radiology	- 2 weeks
iii.	Reproductive Medicine	- 2 weeks
iv.	Anaesthesia	- 2 weeks
v.	Oncology/Radiotherapy	- 2 weeks

b. Details of training in the subject during resident posting

The student should attend to the duties (Routine and emergency): Out patient Department and special clinics

Inpatients Operation Theater Labor Room

Writing clinical notes regularly and maintains records.

1st term - working under supervision of senior residents and teaching faculty.

2nd & 3rd term-	***Besides patient care in O.P.D., wards, Casualty and labor room, carrying out minor operations under supervision and assisting in major operation.***
4th 5th & 6th term -	***independent duties in management of patient including major operations under supervision of teaching faculty***

c. Surgeries to be done during PG training. **(Details in the Syllabus)**

During the training programme, patient safety is of paramount importance; therefore, skills are to be learnt initially on the models, later to be performed under supervision followed by performing independently; for this purpose, provision of surgical skills laboratories in medical colleges is mandatory.

ASSESSMENT

FORMATIVE ASSESSMENT, during the training includes

Formative assessment should be continual and should assess medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self directed learning and ability to practice in the system.

General Principles

Internal Assessment should be frequent, cover all domains of learning and used to provide feedback to improve learning; it should also cover professionalism and communication skills. The Internal Assessment should be conducted in theory and clinical examination.

Quarterly assessment during the MS training should be based on following educational activities:

1. **Journal based / recent advances learning**
2. **Patient based /Laboratory or Skill based learning**
3. **Self directed learning and teaching**
4. **Departmental and interdepartmental learning activity**
5. **External and Outreach Activities / CMEs**

The student to be assessed periodically as per categories listed in postgraduate student appraisal form (Annexure I).

SUMMATIVE ASSESSMENT, ie., assessment at the end of training

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000.

Postgraduate Examination shall be in three parts:

1. Thesis

Every post graduate student shall carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which shall be written up and submitted in the form of a Thesis. Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the post graduate student to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature.

Thesis shall be submitted at least six months before the Theory and Clinical / Practical examination. The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examination. A post graduate student shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

2. Theory Examination:

The examinations shall be organised on the basis of 'Grading'or 'Marking system' to evaluate and to certify post graduate student's level of knowledge, skill and competence at the end of the training. Obtaining a minimum of 50% marks in 'Theory' as well as 'Practical' separately shall be mandatory for passing examination as a whole. The examination for M.D./ MS shall be held at the end of 3rd academic year. An academic term shall mean six month's training period**.**

There should be four theory papers, as given below:

Paper I: Applied Basic sciences.

Paper II: Obstetrics including social obstetrics and Diseases of New Born

Paper III: Gynaecology including fertility regulation

Paper IV: Recent Advances in Obstetrics & Gynaecology

3. Clinical/Practical & oral/viva voce Examination: shall be as given below:

A) OBSTETRICS : CLINICAL

Long Case: 1 case

Viva voce including:

- Instruments
- Pathology specimens
- Drugs and X-rays, Sonography etc.
- Dummy Pelvis

B) GYNAECOLOGY: CLINICAL

Short Case: 2 case

2 cases with different problems Short Case/ Spot Case

Viva including:

- Instruments
- Pathology specimens
- Drugs and X-rays, Sonography etc.
- Family planning

c) OSCE

RECOMMENDED READING

Books (latest edition) Obstetrics

1. William Textbook of Obstetrics
2. High risk Obstetrics - James
3. High risk pregnancy - Ian Donald
4. Text book of Operative Obstetrics - Munro Kerr.
5. Medical disorder in pregnancy - De Sweit
6. High risk pregnancy - Arias
7. A text book of Obstetrics - Thrnbull
8. Text book of Obstetrics - Holland & Brews.
9. Manual of Obstetrics - Daftary & Chakravarty

Gynaecology

1. Text book of Gynaecology - Novak
2. Text book of Operative Gynaecology - Te-lindes
3. Text book of operative gynaecology - Shaws
4. Text book of Gynaecology and Reproductive Endocrinology - Speroff
5. Text book of Obstetrics & Gynaecology - Dewhurst
6. Manual of Gynaecological Oncology - Disai
7. Text book of Gynaecology – Jaeffcot

Journals

03-05 international Journals and 02 national (all indexed) journals

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DEPARTMENT OF OBG
FORMATIVE ASSESSMENT FOR POST GRADUATES

THEORY:

- Annual theory examination would be conducted for all the batches of postgraduates students.

PRACTICALS:

- Annual practical examination would be conducted for all the batches of postgraduates students (Case allotment for all the batches).

VIVA VOCE:

- 3rd year Postgraduates VIVA VOCE taking along with practicals.

1. *Blueprint of Theory Exam paper*

Paper I : Applied Basics Sciences

Sl. No	Discipline	Topics	Weightage	Marks Allotted	No. of Questions
1	Anatomy and Embryology	Normal and abnormal development, structure and function of female urogenital organs, breast, placenta and umbilical cord and applied anatomy ,fetal growth and development, maternal pelvis and fetal skull.	20%	20	2
2	Medical genetics and biochemistry	Chromosomal abnormalities, birth defects, screening and counselling, biochemical changes in pregnancy including metabolism	20%	20	2
3	Physiology and endocrinology	Physiology of ovulation, menstruation, micturition, spermatogenesis, oogenesis, fertilization, menopause, puberty, endocrine function in reproductive period, placental function, physiological changes in pregnancy in various organ systems, fetal physiology, lactation , puerperium	20%	20	2
4	Pharmacology	Drugs in pregnancy normal and in pregnancy complications Including oxytocics, tocolytics antihypertensives, drugs in GDM, drugs in lactation, teratology , drugs in gynecology in	20%	20	2

		endocrine disorders, menopause, gynecological conditions, infections			
5	Pathology and microbiology including immunology	Normal, abnormal vaginal flora, bacterial, viral, parasitic infections in maternal, fetal and gynaecological disorders, immunology of pregnancy , immunology in fertility and other gynaecological conditions, etio pathogens of various obstetric and gynaecological conditions including premalignant lesions, subfertility, pregnancy complications	20%	20	2

Paper II: Obstetrics including social obstetrics and diseases of newborn

Sl. No	Section	Topics	Weightage	Marks Allotted	No. of Questions
1	Normal pregnancy	Preconceptional and prenatal care, topics- preconceptional care, antenatal care, counseling, screening, nutrition, immunization.	10%	10	1
2	Normal labor and puerperium, abnormal labor	Mechanism and management of normal labor and puerperium and lactation, pelvic assessment, obstructed labor, malpresentations, dysfunctional labor, injuries to birth canal, Puerperal complications.	10%	10	1
3	Abnormal pregnancy and obstetric complications	Pre-eclampsia, antepartum haemorrhage, postpartum haemorrhage, multifetal pregnancy, Rh isoimmunisation, pregnancy after Cesarean section , preterm labor , oligo/polyhydramnios, fetal growth restriction, prolonged and postterm pregnancy, third stage complications	20%	20	2
4	Medical disorders and surgical complications in pregnancy	Anemia , hypertensive disorders, DM, heart disease, thyroid disorders, neurological disorders, Coagulation disorders, renal disorders, liver disorders, respiratory disorders, infections, obesity, surgical complications	20%	20	2
5	Diseases of newborn	Care of newborn , newborn resuscitation, birth asphyxia, congenital anomalies, neonatal hyperbilirubinemia, neonatal sepsis,	10%	10	1

		meconium aspiration syndrome, birth trauma			
6	Social obstetrics	Maternal mortality and near miss, perinatal mortality, national/ WHO programmes related to pregnancy and lactation	10%	10	1
7	Early pregnancy complications	Abortion, MTP methods, MTP law, PCPNDT act, MTP counseling, gestational trophoblastic disease, ectopic pregnancy, screening and diagnosis of fetal anomalies, hyperemesis	10%	10	1
8	Operative obstetrics and miscellaneous	Forceps and vacuum, Cesarean delivery and peripartum hysterectomy, circlage, versions, elderly primi, grand multi, teenage pregnancy	10%	10	1

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Paper III: Gynaecology including fertility regulation

Sl. No	Discipline	Topics	Weightage	Marks Allotted	No. of Questions
1	Benign diseases of genital tract	Fibroid uterus AUB, endometriosis, adenomyosis, genital prolapse, benign ovarian cyst and neoplasm, uterine Malformation, ambiguous sex and chromosomal anomalies- diagnosis and management	20%	20	2
2	Reproductive endocrinology, adolescent gynaecology	Primary and secondary amenorrhea, hyperprolactinemia, thyroid disorders, hirsutism, hyperandrogenism, PCOS, menopause	20%	20	2
3	Infertility	Evaluation of female and male infertility, tests of ovulation, ovulation induction, ART, and guidelines and laws pertaining to ART	10%	10	1
4	Reproductive tract infections	Sexually transmitted diseases, PID, genital TB, syndromic management of STI, RCH programmes for STI	10%	10	1
5	Urogynecology	Urinary incontinence, urogenital fistula	10%	10	1
6	Gynecological malignancy and premalignant lesions,	Gynaecological malignancy and premalignant lesions diagnosis, prevention, management	10%	10	1

7	Family welfare and demography-	Contraception – temporary and permanent methods, statistics- birth and fertility rates, national policies pertaining to family planning	10%	10	1
8	Operative gynecology	Gynecological surgeries, diagnostic and operative laparoscopy, hysteroscopy	10%	10	1

Paper IV: Recent Advances in Obstetrics & Gynaecology

Sl. No	Section	Topics	Weightage	Marks Allotted	No. of Questions
1	Genetics and fetal therapy	Preimplantation Genetics Diagnosis, ethics and counselling, fetal surgeries and gene therapy, newer strategies in aneuploidy screening and diagnosis, fetal imaging.	20%	20	2
2	Reproductive medicine	Recent advances in evaluation , ethics , regulatory laws and management of infertility including immunological therapies, ART, donor gamete and embryo cryopreservation	10%	10	1

3	Recent advances in evaluation and management of common disorders in obstetrics and gynaecology	Screening / prediction of common obstetric and gynaecological disorders and preventive modalities, outcomes of recent trials of drugs and surgeries	30%	30	3
4	Emerging topics in obstetrics and gynaecology	Immunology of pregnancy complications and management, female sexuality , cosmetic gynecology including medico-legal aspects, intersex and gender affirming treatment and surgeries, adolescent and geriatric gynaecology, urogynecology.	20%	20	2
5	Recent advances in gynec oncology	Recent trials/ guidelines in screening, prevention and management of gynaecological malignancy.	10%	10	1
6	Minimally invasive surgery including robotic surgery, non-invasive treatment modalities	Newer applications of laparoscopic/ robotic and hysteroscopic surgeries in obstetrics and gynaecology, non invasive ablative treatment modalities.	10%	10	1

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MODEL QUESTION PAPER

YENEPOYA MEDICAL COLLEGE

DEPARTMENT OF OBSTETRICS & GYNAECOLOGY

MS DEGREE EXAMINATION

(Obstetrics & Gynaecology)

Applied Basic Sciences

PAPER-I

Time: 3 hrs **Max. Marks: 100**

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1. Anatomy of perineum. Discuss management of 3rd degree perineal tear. Describe (5+5)

2. placental hormones. Discuss role of progestogens in obstetrics. Describe (5+5)

3. - discuss anatomy, diagnosis, complications and management. Isthmocele (2+3+2+3)

4. Explain Caldwell - Maloy anatomical classification of pelvis. Discuss contracted pelvis. (5+5)

5. Anti- D immunoglobulin - types and dosage. Discuss management of Rh isoimmunization. (4+6)

6. Obstetric analgesia- discuss methods. Write down ERAS guidelines in caesarian delivery. (7+3)

7. Explain cardiovascular changes in pregnancy. Discuss management of peripartum cardiomyopathy. (4+6)

8. Discuss HPV oncogenesis in carcinoma cervix and HPV vaccine. (4+6)

9. Explain vaginal microbiome. Discuss syndromic management of STDs in women. (3+7)

10. Describe stages of reproductive aging. Discuss vitamin D metabolism and bone mineral density assessment. How do you manage osteoporosis in menopausal women? (2+3+2+3)

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MODEL QUESTION PAPER

YENEPOYA MEDICAL COLLEGE

DEPARTMENT OF OBSTETRICS & GYNAECOLOGY

MS DEGREE EXAMINATION

(Obstetrics & Gynaecology)

Obstetrics including social obstetrics and diseases of New Born

PAPER – II

Time: 3 hrs **Max. Marks: 100**

1. A 26yr P3L3 is admitted on 5th postnatal day with high grade fever and chills and foul smelling discharge PV. Discuss diagnosis, evaluation and management. (3+3+4)

2. Shoulder dystocia- definition, risk factors, diagnosis and management. (1+2+2+5)

3. Placenta Accreta syndrome- classification and management. (2+8)

4. Discuss types, diagnosis and management of caesarean scar ectopic pregnancy. (1+4+5)

5. Discuss diagnosis and management of Small for Gestational Age fetus. Explain role of Doppler in early and late onset FGR. (6+4)

6. Discuss care of the newborn in the delivery room. Briefly describe newborn resuscitation protocol. (7+3)

7. Discuss diagnosis, prevention and management of obstructed labor . Elaborate on difficulties faced during caesarian delivery in a case of obstructed labor. (3+2+3+2)

8. A 30yr G3P2L2 at 38weeks gestation with breech presentation is in active phase of labor. Discuss assisted breech vaginal delivery and complications. (7+3)

9. How will you evaluate and manage a case of intra-uterine fetal demise at term? Discuss role of autopsy. (7+3)

10. Discuss LaQshya program guidelines for labor room. Write short note on Anemia mukt Bharath. (5+5)

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MODEL QUESTION PAPER

YENEPOYA MEDICAL COLLEGE

DEPARTMENT OF OBSTETRICS & GYNAECOLOGY

MS DEGREE EXAMINATION

GYNAECOLOGY

Gynaecology including Fertility regulation

PAPER – III

Time: 3 hrs **Max. Marks: 100**

1. A 28yr P2L2 with 18 week size fibroid uterus with single fibroid and heavy menstrual bleeding consults you in the OPD. Discuss management options and prognosis. (8+2)

2. Discuss diagnosis and factors affecting fertility in a case of endometriosis. Explain management options in a nullipara with an 8cm endometrioma. (3+3+4)

3. Write diagnosis, histological classification, WHO risk scoring and management of gestational trophoblastic neoplasia. (2+2+2+4)

4. Female sterilization- discuss methods, counselling, and compensation protocol by GOI in case of failed sterilization. (5+2+3)

5. Explain physiology of continence. Discuss treatment of overactive bladder. Write short note on Mirabegron. (4+4+2)

6. Write down FIGO staging of ovarian cancer. Discuss role of screening and prevention of ovarian cancer in high risk individuals. (4+3+3)

7. FIGO classification of AUB with modifications. Discuss management of puberty menorrhagia. (5+5)

8. Discuss evaluation of primary amenorrhoea. How do you diagnose and manage cryptomenorrhoea? (5+5)

9. Discuss causes and management of chronic pelvic pain. (4+6)

10. How will you evaluate a case of male infertility? Discuss management. (5+5)

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YENEPOYA MEDICAL COLLEGE
DEPARTMENT OF OBSTETRICS & GYNAECOLOGY
MS DEGREE EXAMINATION
Obstetrics & Gynaecology

Recent Advances in Obstetrics & Gynaecology
PAPER IV

Time: 3 hrs **Max. Marks: 100**

1. Discuss ethical and legal considerations of reproductive freedom in IVF, donor gamete, gamete cryopreservation and surrogacy. (10)

2. Discuss PGD and scope of cell free fetal DNA in obstetrics. (5+5)

3. Discuss fetal therapy. (10)

4. Elaborate on PCPNDT act and its provisions. (10)

5. Discuss role of minimally invasive surgeries in gynecology. (10)

6. Critically evaluate various management options in a case of nulliparous prolapse. (10)

7. Explain pathogenesis of hypertensive disorders of pregnancy Gestosis. Discuss screening, early detection and prevention of HDP. (4+6)

8. Elaborate on 'MOTIVate' in the management of postpartum hemorrhage. Summarize the WOMAN trial on tranexamic acid in the prevention of PPH. (6+4)

9. Critically evaluate various screening methods for GDM. Discuss methods to achieve glycemic control in GDM. (5+5)

10. Discuss insulin sensitizing agents in management of PCOS and management options for infertility in a patient with PCOS. (4+6)

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Summative Evaluation

Final PG University Examination MD/MS/DM/M.Ch. courses

For all Clinical and Prepara subjects

Distribution of marks for Theory examination

Item	**Marks**
No. of Theory Papers	4
Marks for each Theory Paper	100
Total marks for Theory Paper	**400**
Passing Minimum for Theory	200/400 (40% minimum in each paper) Theory – aggregate 50% (In addition, in each Theory paper a candidate has to secure minimum of 40%)

Distribution of marks for Practical examination- Clinical departments

Item	**Marks**	**Total Marks**
Long case	1*120	120
Short case	2*60	120
OSCE(Minimum 4 stations and two should be manned stations)	40	40
Dissertation viva	20	20
Subtotal of clinical/practical	300	**300**
Viva voce	100	100

Grand total	400	**400**

Practical/Clinical and Viva voce - aggregate 50%

Postg raduate Students Appraisal Form Pre / Para /Clinical Disciplines

Name of the Department/Unit :

Name of the PG Student :

Period of Training : FROM……TO……

Sr. No.	PARTICULARS	Not Satisfactory	Satisfactory	More Than Satisfactory	Remarks
		1 2 3	4 5 6	7 8 9	
1.	Journal based / recent advances learning				
2.	Patient based /Laboratory or Skill based learning				
3.	Self directed learning and teaching				
4.	Departmental and interdepartmental learning activity				
5.	External and Outreach Activities / CMEs				
6.	Thesis / Research work				
7.	Log Book Maintenance				

Publications **Yes/ No**

Remarks* _____

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***REMARKS: Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested. Individual feedback to postgraduate student is strongly recommended.**

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