

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ



**CURRICULUM / STATUTES/ REGULATIONS**  
**FOR 4 YEARS MS OBSTETRICS & GYNAECOLOGY**

*Faisalabad Medical University*

*Faisalabad*

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## **Section A**

### **VISION STATEMENT:**

Faisalabad Medical University has been established since 05-05-2017 for purpose of imparting better medical education and encouraging and arranging extensive research and publication in the field of medical science. The vision of university is:

*“Striving to achieve national and international stature in undergraduate and postgraduate medical education with strong emphasis on professionalism, leadership, community health services, research and bioethics”*

### **MISSION STATEMENT**

The mission of the University is:

*“Educate Healthcare professionals to prevent, diagnose and treat human illnesses to practice evidence-based medicine with focus on lifelong healthcare in order to meet the challenges of community needs and competitive medical profession at the same time”*

## **STATUTES**

### **Nomenclature**

The name of degree programmer shall be MS Obstetrics & Gynaecology.

### **Course Title:**

MS Obstetrics & Gynaecology

### **Training Centers:**

Department of Obstetrics & Gynaecology in Affiliated hospitals of Faisalabad Medical University, Faisalabad.

### **Duration of Course:**

The duration of course shall be four (4) years with structured training in a recognized department under the guidance of an approved supervisor.

### **Course structure:**

1. **Core knowledge:** Competency based learning for trainees. (2 exams to be conducted by university). Continuous internal assessment to be included throughout the Programme which is conducted by the department and will carry weightage in final assessment.
2. **Clinical Training** in specialty of Obstetrics & Gynaecology.
3. **Research and Thesis writing.**

4. **Mandatory Workshops** throughout the course of programme will be conducted. The basic workshops will be attended by all trainees from all specialties and will be evenly distributed throughout the course:

1. **Communication skills**
2. **Research synopsis and thesis writing skills**
3. **Basic Biostatistics and Research Methodology**
4. **Information Technology Skills**
5. **Initial Life Support (ILS)**

At the end of each workshop, assessment will be done regarding the workshop and certificates will be issued to passing trainees only. The workshops will be conducted by the University and will be paid as in all post-graduate programmes and supervised by the department of Medical Education, FMU, Faisalabad. The trained certified coaches/teachers will be invited and they will get incentive from the university. All the interested trainers will contact the department for inclusion in trainers list.

Feedback of the facilitators will be recorded for the continuation of the process. Medical education department will issue yearly planner for these workshops in the light of curriculum document. University will certify it.

#### **5. Specialty Specific workshops**

- Basic surgical skills

The trainee will have to complete the workshop of basic surgical skills in first two years of training before intermediate examination. The department of surgery, Faisalabad Medical University, will be responsible for the conduction of this workshop.



## **Section B:**

### **Admission Criteria**

Central induction Policy as per Government rules.

### **Registration and Enrollment**

The number of PG Trainees/ Students and Beds to trainee ratio at the approved teaching site will be as per policy of Pakistan Medical & Dental Council.

The University will approve supervisors for MS Obstetrics & Gynaecology courses.

Candidates selected for the courses after their selection and enrollment shall be registered with FMU as per prescribed Registration Regulation.

### **Accreditation Related Issues Of The Institution**

#### **A. Faculty**

Properly qualified teaching staff in accordance with the requirements of Pakistan Medical and Dental Council (PMDC). Supervisors will be decided by the university according to the set standards and rules.

#### **B. Adequate resources**

The university will provide adequate resources Including class-rooms (with audiovisual aids), demonstration rooms, computer lab, clinical pathology lab, theaters, instruments and other equipment etc. for proper Training of the residents as per their course outcomes and objectives.

#### **C. Library**

Departmental library should have latest editions of recommended books, reference books and latest journals (National and International).

### **Freezing of Program & Leave Rules:**

Freezing of training, Maternity leave, Ex Pakistan Leave and Extra Ordinary Leave etc. would be allocated through the Office of Dean Postgraduate to the competent authority.

## **Section C:**

### **AIMS AND OBJECTIVES OF THE COURSE**

#### **AIM**

The aim of four years MS programme in Obstetrics & Gynaecology is to train residents to acquire the competency of a specialist in the relevant field so that they can become good clinicians, teachers, researchers and community health provider in their specialty after completion of their training according to the global standards.

#### **LEARNING OBJECTIVES:**

##### **GENERAL OBJECTIVES**

MS Obstetrics and Gynaecology training should enable a student to:

1. Access and apply relevant knowledge to clinical practice:
  - Apply scientific knowledge in practice
  - Update the knowledge & technical skills
2. Safely and effectively performs appropriate surgical procedures:
  - Demonstrate sound surgical skills
  - Demonstrate procedural knowledge and technical skill at a level appropriate to the level of training
  - Demonstrate manual dexterity required to carry out procedures
  - Adapt their skills in the context of each patient and procedure
  - Maintain and acquire new skills
  - Approach and carries out procedures with due attention to safety of patient, self and others
  - Analyze their own clinical performance critically for continuous improvement

3. Design and implement effective management plans:
  - Recognize the clinical features, accurately diagnose and manage gynaecological as well as obstetric problems
  - Formulate a well-reasoned provisional diagnosis and management plan based on a thorough history and examination
  - Formulate a differential diagnosis based on investigative findings
  - Manage patients in ways that demonstrate sensitivity to their physical, social, cultural and psychological needs
  - Manage the care of patients with gynaecological or obstetric trauma including multiple system trauma
  - Recognize and manage complications
  - Identify the benefits, risks and mechanisms of action of current and evolving treatment modalities
  - Indicate alternatives in the process of interpreting investigations and in decision-making
  - Manage complexity and uncertainty
  - Consider all issues relevant to the patient
  - Identify risk and implement a risk management plan
  - Evaluate critically and integrate new technologies and techniques.
  
4. Organize diagnostic testing, imaging and consultation as needed:
  - Select medically appropriate investigative tools and monitoring techniques in a cost-effective and useful manner.
  - Appraise and interpret appropriate diagnostic imaging and investigations according to patients' needs.
  - Evaluates critically the advantages and disadvantages of different investigative modalities.

5. Communicate effectively:
  - Communicate appropriate information to patients (and their family) about procedures, potentialities and risks associated with surgery in ways that encourage their participation in informed decision making
  - Communicate with the patient (and their family) the treatment options including benefits and risks of each
  - Communicate with and co-ordinate health management teams to achieve an optimal surgical environment
  - Initiate the resolution of misunderstandings or disputes
  - Modify communication to accommodate cultural and linguistic sensitivities of the patient
6. Recognize the value of knowledge and research and its application to clinical practice:
  - Assume responsibility for self-directed learning
  - Appraise new trends in Obstetrics and Gynaecology
  - Facilitate the learning of others.
7. Appreciate ethical issues associated with Obstetrics and Gynaecology:
  - Apply ethical principles
  - Identify ethical expectations that has impact on medico-legal issues
  - Recognize the current legal aspects of informed consent and confidentiality
  - Be accountable for the management of their patients.
8. Professionalism by:
  - Employing a critically reflective approach to Obstetrics and Gynaecology
  - Adhere with current regulations concerning workplace harassment
  - Carry out self and peer reviewed audit regularly
  - Acknowledge and have insight into their own limitations
  - Acknowledge and learn from mistakes
8. Work in collaboration with members of an interdisciplinary team where appropriate:

- Collaborate with other professionals in the selection and use of various types of treatments assessing and weighing the indications and contraindications associated with each type
  - Develop a care plan for a patient in collaboration with members of an interdisciplinary team
  - Employ a consultative approach with colleagues and other professionals
  - Recognize the need to refer patients to other professionals.
9. Management and Leadership
- Effective use of resources to balance patient care and system resources
  - Identify and differentiate between system resources and patient needs
  - Prioritize needs and demands dealing with limited system resources.
  - Manage and lead clinical teams
  - Recognize the importance of different types of expertise which contribute to the effective functioning of clinical team.
  - Maintain clinically relevant and accurate contemporary records
10. Health advocacy:
- Promote health maintenance of patients
  - Advocate for appropriate health resource allocation
  - Promote health maintenance of colleagues and self scholar and teacher

### **SPECIFIC LEARNING OUTCOMES**

On completion of the training programme, Obstetrics and Gynaecology trainees pursuing an academic pathway will be expected to have demonstrated competency in all aspects of the published syllabus. The specific training component would be targeted for establishing clearly defined standards of knowledge and skills required to practice Obstetrics and Gynaecology at secondary and tertiary care level with proficiency.

1. Describe embryology, applied anatomy, physiology, pathology, clinical features, diagnostic procedures and the therapeutics including preventive

methods, (medical/surgical) pertaining to Obstetrics and Gynaecology surgery.

2. Develop clinical skills in the medical interview and physical examination in both obstetrical and gynecological patients.
3. Understand the physiological, physical and psychological changes during pregnancy, labour and puerperium.
4. Understand the development of the fetus from conception to term.
5. Develop skills in identifying the needs of the mother during antenatal, intrapartum and postnatal period and promote positive health in normal and high risk cases.
6. Develop skill in conducting normal labour and identify any major deviations from normal.
7. Develop skill in giving care to the high-risk neonates, small for date & premature infants.
8. Identify menstrual disorders, pelvic inflammatory diseases and infertility cases and provide comprehensive care.
9. Extend maternal and child health to families and counsel couples regarding acceptance of family planning measures.
10. Be able to develop a broad differential diagnosis for a patient with an "acute abdomen" including conditions such as pelvic infection, ectopic pregnancy, adnexal torsion, appendicitis, diverticulitis, urinary calculi.
11. Recognize social and health policy aspects of women's health, ethical issues, sterilization, abortion, domestic violence, adolescent pregnancy, and access to health care.
12. Demonstrate newer knowledge about gynaecological or obstetric diseases in general, including technological (laser) and pharmacologic advances (medicines) and newer method of therapy for certain conditions
13. Acquire knowledge about radiology/imaging and to interpret different radiological procedures and imaging procedures in Obstetrics and Gynaecology.

## **Content list:**

Course content in the syllabus will be based on the curriculum goals wherein a postgraduate student is required to acquire knowledge of basic and applied sciences including anatomy, physiology, pharmacology, pathophysiology and microbiology related to reproductive system and be able to manage pathological states related to it by medical, surgical and other relevant modalities. The syllabus will be divided into four sections based on the formative assessment.

## ***Basic and Applied Sciences***

### **1. Embryology**

- Oogenesis, spermatogenesis and organogenesis
- Early embryogenesis: fertilization, transportation and implantation
- Early development of the embryo
- Organogenesis
- Development of the genital organs
- Development of the placenta and placental bed
- Development of membranes and formation of amniotic fluid

### **2. Fetal and placental physiology**

- Fetal growth
- Fetal circulation, Renal function and amniotic fluid dynamics
- Amniotic fluid
- Fetal lung and brain development
- The placenta
- Fetal origins of adult disease

### **3. Anatomy**

- The Abdomen
- The pelvis
- The perineum



- The ischiorectal fossae and lateral pelvic wall
- Pelvic organs
- The rectum, anal canal
- The bladder
- The Breast

#### **4. Pathology**

- General pathological principles
- Cellular injury and death
- Pathology of gynecological tumors
  - Vulva
  - Vagina
  - Cervix
  - Endometrium
  - Myometrium
  - Ovary
- Pathology of miscarriage and gestational trophoblastic disease
- Pathology of common congenital abnormalities
- Pathology of the placenta .

#### **5. Physiology**

- Physiologic changes in pregnancy in all systems of body.

#### **6. Endocrinology**

- Mechanisms of hormone action and second messenger systems and Hormone types
- Hypothalamus and pituitary and Pineal gland
- Reproductive hormones, Leptin, Inhibin and activin
- Puberty
- Menstrual cycle
- Pregnancy
- Lactation

- Menopause
- Pancreas , Thyroid ,Adrenal gland, Calcium homeostasis

### **7. Drugs and drug therapy**

- Factors that influence drug action
- Physiological changes that affect drug metabolism in pregnancy
- The placental barrier
- Drugs used in pregnancy and drugs contraindicated in pregnancy
- Antineoplastic drugs , Psychotropic drugs
- Oral contraceptives
- Drugs of choice in breastfeeding

### **8. Physics**

- Diagnostic ultrasound , Magnetic resonance imaging (MRI), CT
- Radiotherapy and X-rays

### **9. Statistics and evidence-based healthcare**

- Basic statistical principles
- Data types, distribution assumptions and parametric tests
- Data collection and presentation

### **10. Clinical research methodology**

- The clinical research process
- Consent, information
- Review of the literature
- Common statistical terms used in clinical trials
- References

## ***Obstetrics and Neonatology***

### **1. Prenatal Care**

- Pre conceptional counselling and Prenatal Care
- Nutrition During Pregnancy
- Drugs and Environmental Agents in Pregnancy and Lactation:  
Teratology, Epidemiology

- Obstetric Ultrasound: Imaging, Dating, Growth, and Anomaly
- Genetic Screening and Prenatal Genetic Diagnosis
- Antepartum Fetal Evaluation

**2. Identification and management of early pregnancy complications like**

- Abortion
- Recurrent Pregnancy loss
- Cervical Incompetence
- Ectopic Pregnancy
- Gestational Trophoblastic Disease
- Hyperemesis Gravidarum

**3. Identification and management of Obstetrical Complications**

- Hypertensive Disorders
- Obstetrical Hemorrhage
- Preterm birth
- Post term pregnancy
- Fetal growth restriction
- Multiple Pregnancy
- Anemia
- Rh incompatibility
- Hydramnios and Oligohydramnios
- Intrauterine death
- Pregnancy with previous caesarean delivery
- Bad obstetric history and other miscellaneous conditions

**4. Identification and management of medical and surgical complications**

- Cardiovascular Diseases
- Pulmonary Disorders
- Diabetes Mellitus
- Thromboembolic Disorders
- Renal and Urinary Tract Disorders

- Gastrointestinal Disorders
- Hepatic, Biliary and Pancreatic Disorders
- Hematological disorders
- Endocrine Disorders
- Connective Tissue disorders
- Obesity
- Neurological Disorders
- Dermatological Disorders
- Neoplastic disorders
- Acute abdomen (surgical emergencies – appendicitis and GI emergencies).

#### **5. Evaluation of fetal well being**

Use of diagnostic modalities including modern ones (USG, Doppler, Electronic monitors) and plan for safe delivery for mother and fetus. Identifying fetus at risk and its management.

#### **6. Infections in pregnancy (bacterial, viral, fungal, protozoal)**

- Malaria, toxoplasmosis
- Viral – rubella, CMV, herpes, HIV, hepatic viral infections
- Sexually transmitted infections (STIs)
- Mother to fetal transmission of infection

#### **7. Gynecological disorders associated with pregnancy –**

- Congenital genital tract developmental anomalies
- Gynaecology pathologies – fibroid uterus, cancer cervix, genital prolapse

#### **8. Normal Labor**

- WHO labour care guide
- Intrapartum fetal monitoring
- Induction of labor
- Obstetric Analgesia and Anesthesia

## **9. Abnormal Labor**

- Abnormal labor patterns, prolonged labor, obstructed labor, Dystocia
- Contracted pelvis
- Malposition and malpresentations
- Abnormalities of placenta, cord, amniotic fluid and membranes
- Complications of the third stage of labor

## **10. Postpartum**

- Identification and management of genital tract trauma – perineal tear, cervical / vaginal tear, episiotomy complications, ruptured uterus.
- Management of critically ill woman.
- Postpartum 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.
- Normal and abnormal puerperium – sepsis, thrombophlebitis, mastitis, psychosis
- Hematological problems in obstetrics including coagulation disorders. Use of blood and blood components /products.

## **11. Operative obstetrics**

- Early Pregnancy Operations: Suction and evacuation, Manual vacuum aspiration
- Obstetrics Forceps and Ventouse
- Episiotomy
- Cesarean Delivery
- External cephalic versions & internal podalic version
- Hysterotomy

## **12. Miscellaneous and current topics**

- Audit , medicolegal aspects, ethics , communication, Counseling, Skilled Training and Bio Medical waste management in Obstetrics.
- Safe Motherhood, Epidemiology of Obstetrics, Maternal and Perinatal Mortality and Morbidity , Vital Statistics and Reproductive Morbidity and Health Programme in Obstetrics
- Imaging in obstetrics
- Obstetric Instruments, Specimens, Drugs , spots and Laboratory tests

### **13. Newborn**

- Care of newborn: Normal and high risk new born (including NICU care).
- Examination of New born
- Asphyxia and neonatal resuscitation.
- Neonatal sepsis – prevention, detection and management.
- Neonatal hyper-bilirubinemia – investigation and management.
- Birth trauma – detection and management.
- Detection and management of fetal / neonatal malformation.
- Management of common neonatal problems.

## ***Gynaecology and Family welfare***

1. Epidemiology and clinico pathological aspects of gynecological disorders.
2. Clinical anatomy of the pelvis and reproductive tract.
3. Diagnostic modalities and management of common benign and malignant gynecological diseases.
  - Fibroid uterus
  - Endometriosis and adenomyosis
  - Abnormal Uterine Bleeding
  - 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: ovary, fallopian tubes, uterus, cervix, vagina, vulva, gestational trophoblastic diseases.
4. **Diagnosis and surgical management of clinical conditions related to congenital malformations of genital tract.**
  5. **Intersex, ambiguous sex and chromosomal abnormalities.**
  6. **Health of Adolescent Girls:**
    - Identification and management of health problems of adolescents.
    - Understanding and planning and intervention program of social, educational and health needs of adolescent girls.
  7. **Infertility – Evaluation and management**
    - Methods of ovulation induction
    - Tubal (micro) surgery
    - Management of immunological factors of infertility
    - Male infertility
    - Obesity and other infertility problems
    - Advanced Assisted Reproductive Techniques (ART)
  8. **Reproductive tract infections:**
    - HIV infections in pregnancy, its effects and management.
    - Sexually Transmitted Diseases
    - Genital tuberculosis
    - Other infections
  9. **Principles of radiotherapy and chemotherapy in gynecological malignancies**
  10. **Diagnosis and management of endocrinal abnormalities such as:**
    - Menstrual abnormalities
    - Endometriosis
    - Abnormal uterine bleeding

- Polycystic ovarian disease,
- Hyperprolactinemia
- Amenorrhea (primary / secondary)
- Hyperandrogenism
- Thyroid, pituitary and adrenal disorders.

**11. Urological problems in gynecology – Diagnosis and management**

- Urinary tract infection
- Uterovaginal prolapse
- Urogenital injury and fistulae
- Urinary Incontinence
- Other urological problems

**12. Menopause: management (HRT) and prevention of its complications**

**13. Endoscopy : Laparoscopy , hysteroscopy, colposcopy**

**14. Diagnostic and simple therapeutic procedure**

- Pap Smear
- Wet smear examination
- Endometrial Biopsy
- Endometrial Aspiration
- Dilatation and Curettage/Fractional Curettage / Polypectomy
- Cervical Biopsy
- Cryocauterisation / Electrocautery of Cervix
- Hysterosalpingography
- Colposcopy
- Basic ultrasound / TVS
- Vulval Biopsy
- Intra Uterine Contraception Device Insertion / removal

**15. Operative Gynecology-**

- Abdominal incisions, suture material, instruments and knotting



- Abdominal and vaginal hysterectomy
- Surgical procedures for genital prolapse, fibromyoma, endometriosis, ovarian adnexal, uterine, cervical, vaginal and valvular pathologies.
- Surgical treatment for urinary and other fistulae, urinary incontinence
- Diagnostic and Operative endoscopy

#### **16. Family Welfare and Demography**

- Demography and Population dynamics
- Statistics regarding maternal mortality/morbidity, perinatal mortality / morbidity, birth rate, fertility rate.
- National Health Policies and Programs, in relation to population and family welfare safe childbirth.
- Knowledge of contraceptive techniques both female & male, including recent developments.
- Medical termination of pregnancy: act, its implementation, providing safe and adequate services.

#### ***Recent Advances:***

The topics will be updated according to the current advances and developments in the field of Reproductive Health. The following are a guide to the areas of interest.

##### **1. Obstetrics**

- a) Genetic counseling and prenatal testing
- b) Screening and prevention of pre-eclampsia
- c) Changing practices in the management of first-trimester miscarriage
- d) Recurrent pregnancy loss
- e) Obesity and pregnancy
- f) Prediction of pre term labor: Fetal fibronectin and cervical USG
- g) Extreme preterm birth: Role of corticosteroids and magnesium sulfate
- h) Induction of labor : who, when, how and where?
- i) Fetal monitoring during labor

- j) Advances and updates in the management of post partum hemorrhage
- k) Role of operative deliveries : Minimizing complications
- l) Fetal therapy and surgery
- m) Pregnancy after assisted reproductive techniques
- n) Newer respiratory viral infections, including COVID-19
- o) Rational Antibiotic policy in pregnancy
- p) Minimally invasive surgery in pregnancy
- q) Domestic violence and its relevance in obstetrics
- r) Substance abuse during pregnancy

## 2. **Gynaecology**

- a) Medical management of endometriosis
- b) Immunotherapy for ovarian cancer
- c) SPRMs in gynecology
- d) The future of cervical screening
- e) Laparoscopy and cystoscopy in chronic pelvic pain and bladder pain
- f) Enhanced recovery in obstetric and gynecological surgery
- g) New reproductive health guidelines for patients with systemic rheumatic diseases
- h) Management of tubal ectopic pregnancy
- i) Controversies in female genital cosmetic surgeries
- j) Tissue extraction in gynecologic surgeries: past, present and future.
- k) The use of robotics in gynecologic surgeries
- l) Urinary incontinence , its evaluation and management
- m) Oral treatment for heavy menstrual bleeding related to uterine fibroids
- n) Treatment for recurrent bacterial vaginosis
- o) Newer contraceptives
- p) C- reactive protein and T-O abscess
- q) Contemporary diagnosis and treatment of heavy menstrual bleeding
- r) Pediatric and adolescent gynecology
- s) Sexual abuse
- t) HPV vaccination and CIN recurrence

- u) Management of abnormal cervical cytology results during COVID-19 pandemic
- v) Pap smear screening and HPV vaccination in low income countries.
- w) Palliative care consultation for high-risk surgical patients
- x) Sentinel lymph nodes and precision surgery in gynecologic cancer
- y) Preventing ovarian cancer in high risk women
- z) FIGO classification of benign and malignant diseases

## **Section D:**

### **PROGRAMME FORMAT**

#### **SCHEME OF THE COURSE OF MS PROGRAMME**

<b>First year</b>	<ul style="list-style-type: none"><li>• 9 months training in Obstetrics &amp; Gynaecology (Basic Anatomy, Physiology, Pharmacology &amp; Pathology of Obstetrics &amp; Gynaecology and Basic Principles of General Surgery)</li><li>• 3 months rotation in general surgery</li><li>• Basic surgical skill workshop to be attended by the end of first year.</li></ul>
<b>Second year</b>	<ul style="list-style-type: none"><li>• Professional training in Obstetrics &amp; Gynaecology</li><li>• 2 mandatory workshops at the end of second year</li></ul> <p><b><u>Research component</u></b> Synopsis to be submitted at the end of 2<sup>nd</sup> year</p>
<b>3<sup>rd</sup> &amp; 4<sup>th</sup> Year</b>	<ul style="list-style-type: none"><li>• Professional training in Obstetrics &amp; Gynaecology</li><li>• 2 rotations each of 3 months to be completed.</li><li>• All workshops to be attended by the end of 4<sup>th</sup> year.</li></ul> <p><b><u>Research component</u></b> Thesis to be submitted.</p>

## Rotations:

Each department will give their required rotations in different specialty along with time

<b>Sr. No.</b>	<b>Rotation Title</b>	<b>Duration</b>	<b>Placement</b>
1	General Surgery	3 months	Allied Hospital during first year
2	Choice from the following: <ul style="list-style-type: none"><li>• General Medicine</li><li>• Paeds Medicine</li><li>• Radiology</li><li>• Anaesthesia</li></ul>	3 months	Allied Hospital during 3 <sup>rd</sup> & 4 <sup>th</sup> year
3	Choice from the following: <ul style="list-style-type: none"><li>• General Medicine</li><li>• Paeds Medicine</li><li>• Radiology</li><li>• Anaesthesia</li></ul>	3 months	Allied Hospital during 3 <sup>rd</sup> & 4 <sup>th</sup> year

## Section E:

### Assessment Plan:

Program duration	Course contents	Assessment method
At the end of 2 <sup>nd</sup> year of program	<ol style="list-style-type: none"> <li>1. Revision of core MBBS component including basic and clinical components.</li> <li>2. Basic knowledge and Acquiring skill related to the specialty according to the objectives made.</li> <li>3. First 2 mandatory Workshops and specialty oriented workshops as described in course outline.</li> <li>4. Submission of synopsis</li> </ol>	<p><b>Intermediate Examination:</b> to be taken by university. It will include:</p> <p>a) Written =300</p> <p>b) TOACS/ OSCE / LONG CASE/ SHORT CASE =300</p> <p><b>Total Marks =600</b></p>
At the end of 3 <sup>rd</sup> & 4 <sup>th</sup> year	<ol style="list-style-type: none"> <li>1. Training to act as an individual while managing patient or performing any task as defined by the objectives.</li> <li>2. Training to act as a teacher, researcher, leader and a player in a team.</li> <li>3. Overall development of a health care professional with all the set competencies of the Program.</li> <li>4. All the mandatory workshops to be completed as mentioned in the curriculum.</li> <li>5. Rotations as described in the curriculum completed.</li> <li>6. Thesis completion and submission</li> </ol>	<p><b>Final Examination</b> to be conducted by university.</p> <p>It will include:</p> <p>a) Written =300</p> <p>b) TOACS/OSCE/ LONG CASE/ SHORT CASE =300</p> <p>c) Continuous internal assessment =100</p> <p>Thesis evaluation =300</p> <p><b>Total marks=600+100+300 =1000</b></p>

### **Components of Intermediate Examination**

- Written: Total Marks =300
  - Clinical, TOACS/OSCE = 300
- Total = 600**

### **Components of Final Examination:**

- Written: = 300 Marks
  - Clinical, TOACS/OSCE = 300 Marks
  - Continuous internal assessment =100 Marks
  - Thesis Evaluation = 300 Marks
- Total = 1000 Marks**

### **Intermediate Examinations:**

Intermediate examination would be conducted for the candidate getting training, at the end of 2nd calendar year of the program.

### **Eligibility Criteria:**

1. Candidate remained on institution roll during the period approved for appearing in examination.
2. Certificate of completion of mandatory workshops.
3. Completion of Log book signed by supervisor/concerned Head of Department.
4. Certificate of submission of Ethical Review Committee approved synopsis to the university if required as per rules of synopsis submission.
5. Evidence of payment of examination fee as prescribed by the University from time to time.
6. Certificates submitted through Principal/Dean/Head of academic institution shall be accepted as valid towards the candidature of an applicant.
7. Submission of application for the examination and the conduct of examination.

### **Intermediate Examination Schedule and Fee:**

- a) Intermediate Examination at completion of two years training, will be held twice a year.
- b) There will be a minimum period of 30 days between submission of application for the examination and the conduction of examination.
- c) Examination fee will be determined periodically by the University.
- d) The examination fee once deposited cannot be refunded / carried over to the next examination under any circumstances.
- e) The Controller of Examinations will issue Roll Number Slips on receipt of prescribed application form, documents satisfying eligibility criteria and evidence of payment of examination fee.

### **Written Examination:**

The written examination will consist of 100 single best answer type Multiple Choice Questions. Each correct answer in the multiple-choice question paper will carry 02 marks. The short essay question will be clinical scenario or practice based, and each question will carry 10 marks.

The marks of written exam will be divided as follows:

- MCQs (single best type) = 200 Marks
- SEQ (10 marks) = 100 Marks

### **Declaration of Results**

The candidates scoring 60% marks in the written examination will be considered pass and will then be eligible to appear in the clinical and oral examination.

### **Clinical, TOACS/OSCE:**

The clinical and TOAC/OSCE & Oral examination will evaluate patient care competencies in detail.



The examination will be of 300 total marks consisting of the following components.

**Clinical, TOACS/OSCE**

- a) 4 short cases (2 of Obs & 2 of Gynae 25 marks each) = Total 100
- b) 2 Long Cases (1 of Obs & 1 of Gynae 50 marks each) = Total 100
- c) TOACS/OSCE & ORAL (10 stations with 10 marks each) = Total 100

**Total Marks 300**

- Each short case will be of 10 minutes duration, 05 minutes will be for examining the patient and 05 minutes for discussion.
- Each long case will be of one hour duration 30 minutes will be for examining the patient and 30 minutes for discussion.

**Declaration of Results**

- A student scoring 60% in short cases and 60% in long case and 60 % in TOACS/OSCE will be considered pass in the examination.
- A maximum total of four consecutive attempts (availed or un availed) will be allowed in the Intermediate Examination during which the candidate will be allowed to continue his training program. If the candidate fails to pass his Intermediate Examination within the above-mentioned limit of four attempts, candidate shall have to take entire Intermediate examination including written examination again.

**Final Examination**

**(at the end of 4<sup>th</sup> Calendar year of the program)**

**Eligibility Criteria:**

To appear in the Final Examination the candidate shall be required:

1. Result card showing that the candidate has passed intermediate Examination.
2. Certificate of completion of 4 Years training duly signed by Supervisor, Head of parent Department and that of the Head of Department where rotations were done
3. Evidence of thesis submission to Department of Examination of the University.
4. Evidence of payment of examination fee as prescribed by the university from time to time.
5. The examination fee once deposited cannot be refunded / carried over to the next examination under any circumstances.
6. Candidate remained on institution roll during the period required for appearing in examination.
7. Only those certificates, submitted through Principal/Dean/Head of academic institution shall be accepted.

#### **Final Examination Schedule and Fee:**

- a) Final examination will be held twice a year i.e. at least six months apart.
- b) Examination fee will be determined and varied at periodic intervals by the University.
- c) The examination fee once deposited cannot be refunded / carried over to the next examination under any circumstances.
- d) The Controller of Examinations will issue an Admittance Card with a photograph of the candidate on receipt of prescribed application form, documents satisfying eligibility criteria and evidence of payment of examination fee. This card will also show the Roll Number, date / time and venue of examination.

#### **Written Part of Final Examination**

- a) The written examination will consist of 100 single best answer type Multiple Choice Questions (MCQs) and 10 Short Essay Questions (SEQs). Each correct answer in the Multiple-Choice Question paper will carry 02 marks. Each Short Essay Question will carry 10 marks.

b) The Total Marks of the Written Examination will be 300 and to be divided as follows:

- Multiple Choice Question paper Total Marks = 200
- Short Essay Question paper Total Marks = 100

**Total Marks = 300**

### **Paper 1**

- MCQs 100 (2marks each)

### **Paper 2**

- SEQs 10 (10 marks each)
- a. Paper 1 shall comprise of hundred (100) "single best answer" type Multiple Choice Questions. Each Question shall carry 02 marks.
  - b. Paper 2 shall comprise of ten (10) Short Essay Questions, each carrying 10 marks.

### **Declaration of Results**

- c. The candidates scoring 60% marks in aggregate of Paper 1 and Paper 2 of the written examination will be declared pass and will become eligible to appear in the Clinical Examination.

### **Clinical, TOACS/OSCE:**

The Total Marks of Clinical and TOACS/OSCE & Oral will be 300 and to be divided as follows:

- 4 Short Cases (25 each) Total Marks = 100  
(2 Cases of Obs & 2 Cases of Gynae)
- 2 Long Case (50 each) Total Marks = 100  
(1 Case of Obs & 1 Case of Gynae)

- TOACS/OSCE & ORAL

Total Marks = 100

**Total Marks = 300**

- Each short case will be of 10 minutes duration, 05 minutes will be for examining the patient and 05 minutes for discussion.
- Each long case will be of one hour duration 30 minutes will be for examining the patient and 30 minutes for discussion.

### **Declaration of Results**

- A student scoring 60% in long case, 60% in short cases and 60% in TOACS/OSCE will be considered pass in the examination.
- Candidate, who passes written examination, shall be allowed a maximum of three availed attempts within 02 years to pass Clinical/Oral examination. However, in case of failure to pass Clinical examination within stipulated attempts the credit of passing the written examination shall stand withdrawn and candidate shall have to take entire examination including written examination, afresh.
- Candidate, who has completed his or her training along with all the requirements mentioned in the curriculum, shall have to appear in the final examination at least once within a period of 7 years (from the time of induction of their training). Failure to comply with this, the matter will be referred to the competent authority through proper channel for final decision.

### **Synopsis and Thesis Writing:**

Thesis writing must be completed and thesis be submitted at least 6 months before the end of final year of the program.

Thesis evaluation & defense will be carried out at the end of 4<sup>th</sup> calendar year of MS.

### **Submission / Evaluation of Synopsis**

- a) The candidates shall prepare their synopsis as per guidelines provided by the Advanced Studies & Research Board, available on the university website.
  
- b) The research topic in clinical subject should have 30% component related to basic sciences and 70% component related to applied clinical sciences. The research topic must consist of a reasonable sample size and sufficient numbers of variables to give training to the candidate to conduct research, to collect & analyze the data.
  
- c) Synopsis of research project shall be got approved by the end of the 2nd year of MS/MD program. The synopsis after review by an Institutional Review Committee, shall be submitted to the University for consideration by the Advanced Studies & Research Board, through the Principal / Dean /Head of the institution.

### **Submission and evaluation of Thesis Evaluation (300 Marks)**

1. The Thesis shall be submitted to the Controller of Examination through Head of Institute, duly signed by the Supervisor, Co-Supervisor(s) and Head of the Department.
2. Submission of Thesis is a prerequisite for taking Final Theory Examination.
3. Examiners shall be appointed by the Vice chancellor on recommendation of Controller of Examination from a panel approved by Advance Studies & Research Board for evaluation of thesis.
4. All MS thesis shall be evaluated by two examiners, one internal and one external (The supervisor must not be the evaluator)
5. Thesis defense shall be held after approval of evaluation reports by Advanced Studies & Research Board.
6. Thesis defense shall be conducted by the examiners who evaluated Thesis of the candidate.
7. The candidate scoring 60% marks in Thesis defense examination will be declared as pass in the examination.

## **Continuous Internal assessment**

It will consist of professional growth oriented student-centered integrated assessment with an additional component of formative assessment and measurement-based summative assessment

### **Attendance**

- Students joining postgraduate training program shall work as full-time residents during the duration of training and maximum 2 leaves are allowed in one month, and should take full responsibility and participation in all facets of the educational process. The period of training for obtaining degrees shall be four completed years .

### **Presentations**

- In addition to the conventional teaching methodologies interactive strategies will also be introduced to improve both clinical and communication skills in the upcoming consultants. Presentations must be conducted regularly as scheduled and attended by all available faculty and residents. As a policy, active participation of the postgraduate resident will be encouraged. Proper written feedback will be given for these presentations and that will be a part of Resident's Portfolio as well. Reflection of the events to be written by the residents as well and must be included in their portfolios.

### **Task evaluation**

- This competency will be learned from journal clubs, review of literature, policies and guidelines, audit projects, medical error investigations, root cause analysis and awareness of healthcare facilities. Active participation and ability to fulfill given tasks will be encouraged. Written feedback must be given and documented to be included in portfolio

### **Continuous Internal Assessment format (100 Marks)**

1. The award of continuous internal assessment shall be submitted confidentially in a sealed envelope.
2. The supervisor shall submit cumulative score of internal assessment of all training years to be added together to provide a final cumulative score of Continuous Internal Assessments of all the trainees to the Head of the Department/ Dean of Post Graduate studies.
3. The Head of Department/ Dean shall submit the continuous internal assessment score through the Principal/ Registrar office to the Examination Department of the University. Score of continuous internal assessment once submitted shall be final and cannot be changed subsequently under any circumstances.
4. The weightage of internal assessment in the final examination will be 10%.
5. Continuous Internal Workplace Based Assessments will be done by the supervisors, that may be based on but not limited to:
  - a. Generic and Specialty Specific Competency Assessments
  - b. Multisource Feedback Evaluations
  - c. Assessment of Candidates' Training Portfolio

## TOOLS OF ASSESSMENT FOR THE COURSE:

<b>TOOL USED:</b>	<b>DOMAIN TESTED:</b>
<b>MCQs</b>	Knowledge
<b>SEQs</b>	Knowledge
<b>TOACS/OSCE</b>	Knowledge. Skill Attitude
<b>PRESENTATIONS (wards, seminars, conferences, journal clubs)</b>	Knowledge. Skill Attitude
<b>Portfolios and log books.</b>	Skill Attitude
<b>Short cases.</b>	Knowledge Skill Attitude
<b>Long cases</b>	Knowledge Skill Attitude
<b>Continuous internal assessment</b>	Skill Attitude
<b>Feedback from department where rotation is being conducted.</b>	Knowledge Skill Attitude



## **Section F**

### **Award of MS Obstetrics & Gynaecology Degree**

A candidate having declared successful in all the components of examination i.e. ***Theory, Clinical and Thesis*** shall be declared pass and shall be conferred degree in MS Obstetrics & Gynaecology

## **Section G:**

### **Log Book**

As provided by university website portfolio

## **Section H**

### **Portfolio:**

As per format approved by the university

## **Section I**

### **Paper Scheme**

#### **Intermediate Examination**

Written MCQ 100 (50% OBS & 50% GYNAE)

SEQ 10 (50% OBS & 50% GYNAE)

MCQs = 200 marks

SEQs = 100 marks

## Obstetric

Sr No.	Topic:	Number of MCQs	Level	Number of SEQs
1.	Embryology and Physiological changes in pregnancy	3	C-1	-
2.	Antenatal Care	4	C-1, C2	1
3.	Antenatal Obstetric Complications	8	C2,C3	1
4.	Maternal Medical and Surgical Complications	5	C1,C2	1
5.	Evaluation of Fetal Wellbeing	3	C2,C3	
6.	Perinatal Infections	4	C1 C2	
7.	Normal and Abnormal Labor	8	C2,C3	1
8.	Operative Obstetrics	4	C1,C2	
9.	Puerperium	3	C1,C2	
10.	Obstetric Emergencies	6	C1,C2,C3	1
11.	Neonate	2	C1,C2	
<b>Total</b>		<b>50</b>		<b>5</b>

## Gynaecology

Sr No.	Topic:	Number of MCQs	Level	Number of SEQ
1.	Pelvic Anatomy	2	C-1	-
2.	Physiology of Menstrual Cycle	2	C-1	-
3.	Disorders of Menstrual Cycle	5	C2,C3	1
4.	DSD	2	C1,C2	
5.	Early Pregnancy Complications	8	C2,C3	1
6.	Contraception	5	C2	
7.	Subfertility	5	C1,C2	1
8.	Menopause and HRT	2	C1,C2	
9.	Reproductive Tract Infections	5	C1,C2	
10.	Urogynaecology	4	C1,C2,C3	1
11.	Benign conditions of Genital Tract	7	C1,C2,C3	1
12.	Operative Gynecology	3	C1,C2	
<b>Total</b>		<b>50</b>		<b>5</b>

### **Clinical, TOACS/OSCE**

a) OSCE/TOACS	=	100 marks
b) 4 short cases (2 of Obs & 2 of Gynae 25 marks each)	=	100 marks
c) 2 Long Cases, (1 of Obs & 1 of Gynae 50 marks each)	=	100 marks
<b>Total</b>	<b>=</b>	<b>300 marks</b>

### **Final Examination**

Written MCQ 100 (50% OBS & 50% GYNAE)

SEQ 10 (50% OBS & 50% GYNAE)

MCQs = 200 marks

SEQs = 100 marks

### **Obstetrics**

<b>Sr No.</b>	<b>Topic:</b>	<b>Number of MCQs</b>	<b>Level</b>	<b>Number of SEQs</b>
1.	Embryology and Physiological changes in pregnancy	2	C-2	-
2.	Antenatal Care	4	C2, C3	1
3.	Antenatal Obstetric Complications	7	C2,C3	1
4.	Maternal Medical and Surgical Complications	5	C2,C3	1
5.	Evaluation of Fetal Wellbeing	3	C2,C3	
6.	Perinatal Infections	4	C2 C3	
7.	Normal and Abnormal Labor	8	C2,C3	1
8.	Operative Obstetrics	4	C2,C3	
9.	Puerperium	3	C2,C3	
10.	Obstetric Emergencies	6	C1,C2,C3	1
11.	Neonate	1	C1,C2	
12.	Audit and Medicolegal aspects in Obstetrics	2	C1 C2	
13	Gynecological Disorders associated with Pregnancy	1	C2 C3	
<b>Total</b>		<b>50</b>		<b>5</b>

## Gynaecology

Sr No.	Topic:	Number of MCQs	Level	Number of SEQs
1.	Pelvic Anatomy	2	C-1	-
2.	Physiology of Menstrual Cycle	1	C-1	-
3.	Disorders of Menstrual Cycle	4	C2,C3	1
4.	DSD	2	C1,C2,C3	
5.	Early Pregnancy Complications	6	C2,C3	
6.	Contraception	5	C2,C3	
7.	Subfertility	4	C2,C3	1
8.	Menopause and HRT	2	C1,C2,C3	
9.	Reproductive Tract Infections	4	C2,C3	
10.	Urogynaecology	4	C1,C2,C3	1
11.	Benign conditions of Genital Tract	6	C2,C3	1
12.	Operative Gynecology	3	C2,C3	
13.	Malignant Diseases of Genital Tract	5	C2,C3	1
14.	Principles of Radiotherapy and Chemotherapy in Gynecological Malignancy	2	C2,C3	
<b>Total</b>		<b>50</b>		<b>5</b>

### TOACS Station distribution:

- 4 short cases (2 of Obs & 2 of Gynae 25 marks each) = Total 100 marks
- 2 Long Cases, (1 of Obs & 1 of Gynae 50 marks each) = Total 100 marks
- TOACS/OSCE & ORAL = Total 100 marks

**Total Marks = 300**

## **Section J**

### **Resources and references (books and other resource material)**

- Ten Teacher Obstetrics & Gynaecology
- Evidence based Obstetrics & Gynaecology
- Shaw's Textbook of Gynaecology
- RCOG Greentop Guidelines
- High Risk Pregnancy
- NICE Guidelines
- Berek & Novak's
- WHO Labour Care guide: User's manual

## **Section K**

### **List of authors and contributors**

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