

CURRICULUM OF OBSTETRICS & GYNECOLOGY

MBBS COURSE Contents

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INTRODUCTION

EDUCATIONAL HOURS

OBSTETRICS & GYNECOLOGY			
Year	Theory	Practical	Total
4th year	50 hours	30 hours (4 week clinical rotation)	80
5th year	100 hours	120 (6 week clinical rotation)	220
Total	150 hours (36 weeks/year)	150 hours	300 hours
Strategy	Lectures Problem based learning Small group discussion Case based discussion	Clinical attachment Evening duties in wards Clinical skills laboratory Early clinical exposure	

LEARNING OUTCOMES

AT THE END OF CURRICULUM STUDENT WILL BE ABLE TO

- Students will demonstrate his ability to obtain a relevant clinical history from a female and obstetrics patients.
- Student will demonstrate his ability to perform adequate clinical examination of female with pregnancy and gynaecological problem.
- Student will be able to interpret clinical and laboratory data to arrive at a diagnosis.
- Student will be able to advise appropriate nutritional measures for pregnant female.
- Student will be able to counsel the parents on health promotive and disease preventive strategies for females e.g. immunization procedures; hand washing)
- Student will be able to recognize and manage common health problems of female and pregnant.
- Student will recognize the danger signs of disease in female and be able to appropriately refer with severe disease to appropriate specialists/hospitals.
- Student will demonstrate his ability to perform essential clinical procedures relevant to females and pregnancy.
- Basic cardio-pulmonary resuscitation.
- Pelvic and abdominal examination.
- Measuring blood pressure
- Starting intravenous lines/ draw blood sample
- Insertion of IUCD.
- Papsmear.
- Antenatal evaluation.

EDUCATION STRATEGIES

The educational strategies in this curriculum are multiple and aligned with domain of learning and according to the desired outcome

Interactive lectures

One-third of the curriculum will be delivered in a traditional didactic format including PowerPoint presentations and case discussions. Didactic education is considered to be a one-way transmission of material from teacher to learner, we cannot overlook the possibility of meaningful interaction between experts and learners during live lectures. This type of interaction, which allows for immediate clarification of concepts and extension of knowledge, may be particularly important for novice learners who have relatively little exposure to the subject matter, such as our study population(4).

Case based Discussion

A lot of emphasis is on case based discussion during ward placement. Problem-based learning (PBL) is complex and heterogeneous. A wide variety of educational methods are referred as PBL. These include Lecture-based case, Case based lecture, Case based discussions, Problem or inquiry based and Closed loop or reiterative. Incorporation of case based discussion in teaching enhances the critical thinking and problem-solving skills. It also helps in developing a broader prospective of clinical case scenarios (5).

Small Group Discussion

Small group discussion provides a unique environment to achieve high standards in medical education. Activation of prior knowledge, exchange of ideas, and engagement at a higher cognitive level are assumed to result in deeper learning and better academic achievements by students (6).

Clinical Skills Sessions

Clinical skills session are important part of curriculum to achieve psychomotor and affective outcomes. Learning manual skills is a fundamental part of health care education, and motor, sensory and cognitive learning processes are essential aspects of professional development. Simulator training has been shown to enhance factors that facilitate motor and cognitive learning. Students learned manual skills, how to perform the procedure, and professional behaviour. They learned by preparing, watching, practising and reflecting. The simulator contributed by providing opportunities for students to prepare for the skills training, to see anatomical structures, to feel resistance, and to become aware of their own performance ability (7).

ASSESSMENT

MCQ's and SEQ's

Multiple choice question and short essay question test will be used at the end of part of curriculum to assess the learning of knowledge. These all assessment exercises will be formative. The written tests like Multiple-Choice Questions (MCQs) and Short-Essay Questions (SEQs) test formats are used for the assessment of cognitive domain. The MCQs are more objective and essentially select type of item response format. MCQs have a cueing effect, which promotes guessing and leads to higher scores. In addition, writing MCQs of higher cognitive level of problem solving is challenging. On the contrary, the SEQs are more subjective and have a supply or construct type item response format, which does not have any cueing effect and can effectively assess problem solving skills(8).

OSPE AND LONG CASE

Short case and OSCE will be used to evaluate clinical skills and procedural skills at the ward end of placement. The OSCE is a method of clinical skill assessment, and it has been reported to be appropriate for assessing learning achievement levels in the psychomotor and emotional domains, which are difficult to evaluate with written examinations(9).

CLINICAL LOG BOOK

Clinical log book is meant for self directed learning (SDL) and assessment of students. The clinical logbook includes reflection which helps the students to set educational goals.

MINI-CEX

Mini-CEX is used to assess the clinical skills and problem solving skills of medical students. This is the tool used by clinical teachers. This can assess all three domains, Psychomotor, cognitive and affective. This also used as formative assessment.

Evaluation plan

Each Module	Written test (MCQ and SEQ)	Formative
After ward placement	Ward test (OSCE and short case)	Formative
At end of 36 weeks	Send up exam (MCQ and SEQ) Viva voce	Formative
Annual	University Professional exam	Summative

INTERNAL ASSESSMENT

- i. The weightage of internal assessment shall be 10% of totals marks.
- ii. Continuous internal assessment shall consist of evaluation at the end of each assignments, class tests etc., attitudinal assessment from educational supervisors.
- iii. Assessment of knowledge, Skills and Attitude shall contribute toward internal assessment. Methods used to assess these domains shall include Multiple Choice Questions of one-best type, Short essay questions, Oral/Viva, and Practical/Clinical examinations.
- iv. The score of internal assessment shall contribute to the score in the final examination, Final university examination of each subject shall contribute 90 to total score, and the candidate shall pass in aggregate.
- v. Proper record of continuous internal assessment shall be maintained.

LEARNING RESOURCES

The department of Obs & Gynae will require following resources for implementation resources:

- Human resource
- Instructors (faculty members 8)
- Curriculum coordinator curriculum secretary
- Infrastructure
- Lecture hall with AV aids
- Tutorial room with AV aids
- Clinical skills Lab with manikins
- Simulated patients and simulated manikins
- Computers

LISTS OF CONTENT RESOURCES

- Obstetrics by Ten Teachers by Stuart Campbell and Christoph Lees. 17th Ed 2000.
- Gynaecology by Ten Teachers by Stanley G. Clayton and Ash Monga 2006.
- Essentials of Obstetrics and Gynecology by Neville F. Hacker, J. George Moore, and Joseph C. Gambone. 4th ed. 2004
- Notes on Obstetrics & Gynecology by Stirrat, Mills, Draycott. 5th Ed. 2003.
- Text book of Obstetrics and Gynecology by Rashid Lateef
- Obstetrics and Gynecology by Arshad Chauhan
- Online Journals and Reading Materials through HEC Digital Library Facility.

CONTENTS MODULES

COURSE CONTENTS		
4th Year	1st Term	Module 1: Introduction to obstetrics. Module 10: Anatomy & Physiology of Female Genital tract
	2nd Term	Module 2: Physiology of pregnancy Module 11: Menstrual Disorder
	3rd Term	Module 3: Labour Module 12: Early Pregnancy complication
Final Year	1st Term	Module 4: Antepartum care. Module 5: Medical Disorders Module 12: Infertility contraception Module 13: Neoplasias
	2nd Term	Module 6: Obstetrics complication Module 7: Multifetal gestation Module 14: Pelvic floor disorder Module 15: Infection of genital tract
	3rd Term	Module 8: Postpartum care Module 9: Obstetric procedure Module 16: Gynecological surgery Module 17: Clinical skills

IMPLEMENTATION

The curriculum will be spread over 2 year with 36 working weeks each year. During this period student will be exposed to various education strategies to achieve the learning objectives.

4th Year.

In this year student will be placed on ward attachments and clinical skills lab. formative assessment of clinical skills will be started.

Theory (Lecture, SGD and PBL)	Practical (Ward Placement, Skills lab)
50Hours (36 Weeks)	30 Hours (4 Weeks)

Final Year.

In this year student will be placed on ward attachments and clinical skills lab. All students will be assessed for knowledge and clinical skills during year. This year will have summative assessment as final professional at the end of year.

Theory (Lecture, SGD and PBL)	Practical (Ward Placement, Skills lab)
100 Hours (36 Weeks)	120 Hours (6 Weeks)

FOURTH YEAR WARD ROTATION IN OBSTETRICS & GYNECOLOGY

Duration: 4 weeks (75 hours)

Location: ward, OPD, Tutorial room

Tutors: Assistant professor, associate Professor, Professor

	Ward	C	P	A	% age	Assessment
Week 1	History taking of obs/gynae. Clinical exam of obs/gynae.	C2 C2	P1 P1	A1 A1	15	Ward test Mini CEX OSPE
Week 2	Antenatal visits Instruments. Labour Pelvic Diameter.	C2 C2	P1 P1	A1 A1	15	Ward test Mini CEX OSPE
Week 3	Fetal monitoring Endometrial sampling Contraception.	C2 C2	P1 P1	A1 A1	15	Ward test Mini CEX OSPE
Week 4	Forcep's Vacum Delivery Vaginal discharges Pre and post operative care	C2 C2	P1 P1	A1 A1	15	Ward test Mini CEX OSPE

Evaluation:

- Attendance of 75% is mandatory
- 15 clinical histories must be completed on history register
- Every Saturday will be formative assessment for course work of that week
- End of course work will be ward test
- Ward test will be long cases

FINAL YEAR WARD ROTATION IN OBSTETRICS & GYNECOLOGY

Duration: 6 weeks (100 hours)

Location: Ward, OPD, Tutorial room

Tutors: Assistant Professor, Associate Professor, Professor

	Ward	C	P	A	% age	Assessment
Week 1	Labour management. 3rd stage complication. AUB management	C2 C2 C3	P2 P2	A2 A2	15	Ward test Mini CEX OSPE
Week 2	Early pregnancy complication. APH, Fibroid uterus. Ovarian cyst Preterm labor	C2 C2 C3	P2 P2	A2 A2	15	Ward test Mini CEX OSPE
Week 3	PIH, Eclampsia Infertility management Malpresentation Ovarian masses	C2 C2 C3 C3	P2 P2	A2 A2	15	Ward test Mini CEX OSPE
Week 4	PID, PPROM Diabetes, Postdates Induction of labour.	C2 C2 C3	P2 P2	A2 A2	15	Ward test Mini CEX OSPE
Week 5	Vaginal discharge Twins, UV prolapse Steps of LSCS Polyhydramnios	C2 C2 C3	P2 P2	A2 A2	10	Ward test Mini CEX OSPE
Week 6	Liquor abnormalities Steps of hysterectomy C/D of Gynecological Thromboembolism	C2 C2 C3 C3	P2 P2	A2 A2	10	Ward test Mini CEX OSPE

Evaluation:

- Attendance of 75% is mandatory
- 15 clinical histories must be completed on history register
- Every Saturday will be formative assessment for course work of that week
- End of course work will be ward test
- Ward test will be OSPE and 2 long cases

PROGRAMME EVALUATION

Purpose of Evaluation

The major goals of the evaluation are to provide information that the students can use to achieve curricular objectives and that the faculty can use to monitor quality of and improve curriculum.

Design of Evaluation

The evaluation design as only posttest.

Users of evaluation: students, curriculum faculty, Principal Office

Resources: Curriculum faculty and departmental secretaries. No additional funding

Evaluation question:

- What percentage of students achieved 75% mandatory attendance?
- What percentage of students achieved pass marks in university exam?
- What are the strengths of the curriculum? What are the weaknesses? How can the curriculum can be improved?

Because of limited resources, the evaluation was kept simple. Data Collection was integrated into the curriculum schedule. The major goals of the evaluation are to provide information that the students can use to achieve curricular objectives and that the faculty can use to monitor quality of and improve curriculum. The evaluation design as only posttest.

End of curriculum evaluation form:

This will be filled by students and faculty members for evaluation of adequacy with each content was covered, whether they would recommend the curriculum to others and written comments on curriculum strengths, weaknesses and suggestions for improvements.

Annual Report:

Based on evaluation of the educational programe report will be generated annually and submitted to Medical Educational Department.

TABLE OF SPECIFICATION**OBSTETRICS (MCQ's)**

No	Subject	MCQ's
1	Physiological changes in pregnancy.	2
2	Normal Fetal Development.	2
3	Abnormal Fetal Development.	2
4	Assessment of Fetal Well Being.	3
5	Role of investigations.	1
6	Antenatal Care.	4
7	Pain relief in Labour	1
8	Normal Labour.	4
9	Abnormal Labour.	4
10	Puerperal Disorders.	3
11	Medical Disorders in Pregnancy.	4
12	Role of Imaging and Radiology.	2
13	Statistics.	2
14	Neonatology.	1
	Total	35

TABLE OF SPECIFICATION**GYNECOLOGY (Short Essay Questions)**

No	Subject	MCQ's
1	Physiology of Pregnancy.	1
2	Antenatal care including investigations.	1
3	Assessment of Fetal Well Being.	1
4	Intrapartum Care - Normal Labour	1
5	Abnormal Labour.	1
6	Post - Partum Disorders.	1
7	Medical Disorders in Pregnancy.	1
	Total	7

TABLE OF SPECIFICATION**GYNECOLOGY (MCQ's)**

No	Subject	MCQ's
1	Anatomy and embryology of genital tract	2
2	Disorders of puberty and ovulation.	2
3	Disorders of menstruation.	4
4	Abortions.	2
5	Ectopic gestation.	1
6	Intertility.	2
7	Endometriosis and adenomyosis.	1
8	Infections of the genital tract.	3
9	Uterovaginal prolapse.	2
10	Urogynecology and fistulae.	1
11	Benign diseases of genital tract.	4
12	Malignant diseases of genital tract.	4
13	Contraception.	2
14	Menopause and HRT.	2
15	Common gynecological procedures.	2
16	Pre-intra and post operative care.	1
	Total	35

TABLE OF SPECIFICATION**GYNECOLOGY (Short Essay Questions)**

No	Subject	MCQ's
1	Anatomy and development of the genital tract.	1
2	Disorders of menstruation.	1
3	Abortions including ectopic gestation.	1
4	Infertility and Endometriosis.	1
5	Infections of genital tract.	1
6	Benign tumours of genital tract.	1
7	Malignancies of the genital tract.	1
8	Displacements of the uterus and urinary problem.	1
9	Contraception.	1
10	Common gynecological procedures.	1
	Total	10

TABLE OF SPECIFICATION FOR OSPE

OSPE	TOTAL MARKS 75 Total Station 20 (05 Rest Station) 05 Marks at Each Station
Static Stations	Total Station 10 05 stations obstetrics 05 stations gynecology
Interactive / Observed Stations	Total 05 Stations interactive. 3 Obstetrics 2 Gynecology

FINAL PROFESSIONAL MARKING SCHEME

Theory

	SEQ	MCQ	Int. Ass	Sub Total
Obstetrics	35	35	15	150
Gynecology	30	35		

Clinical

Long case X1 case	OSPE	Int. Ass	Sub total
60	75	15	150
			Total: 300

Contents	Objectives	Domain	Strategy	Assessment
Module-1: Introduction of obstetrics				
	<ul style="list-style-type: none"> Introduction. Obstetric history taking and examination. Conception, implantation and development of placenta, fetal circulation, abnormalities of placenta. 	C3P2A2 C3P2A2 C3	WARD/SGD WARD/SGD LEC/SGD	OSPE/SC OSPE/SC MCQ/SEQ
Module-2: Physiology of pregnancy				
	<ul style="list-style-type: none"> Foetal skull and bony pelvis. Diagnosis of pregnancy. Physiological changes associated with pregnancy. 	C3 C3 C3	S-LAB/SGD LEC/SGD LEC/SGD	OSPE MCQ/SEQ MCQ/SEQ
Module-3: Labour				
	<ul style="list-style-type: none"> Physiology of labour. Mechanism of labour. Management of labour. Complications of 3rd stage of labour. Abnormal labour e.g. Prolonged labour/ obstructed labour. Pre-term labour. Induction of labour. 	C3 C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
Module-4: Antipartum care				
	<ul style="list-style-type: none"> Ante-natal care. Early pregnancy loss and its management (Abortions) 	C3P2A2 C3P2A2	WARD/SGD WARD/SGD	OSPE/SC OSPE/SC
Module-5: Medical disorders of pregnancy				
	<ul style="list-style-type: none"> Pregnancy with anaemia Pregnancy with heart disease Pregnancy with diabetes Pregnancy with jaundice/hepatitis Renal problems during pregnancy Pyrexia in pregnancy Hypertensive disorder, PET, Eclampsia 	C3 C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ

Contents	Objectives	Domain	Strategy	Assessment
Module-6: Obstetrics complications	<ul style="list-style-type: none"> Pre-maturity, Post-maturity. Ante-partum haemorrhage. Hydramnios. Hyperemesis gravidarum. Obstetric shock. Intra uterine growth retardation and its management. Fetal distress and its management. Obstetric injuries/ruptured uterus. Haematological disorder of pregnancy e.g. Rh incompatibility, Thalassemia major/minor 	C3 C3 C3 C3 C3 C3 C3 C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
Module-7: Multifetal Gestation and Malpresentation	<ul style="list-style-type: none"> Fetal Monitoring. Fetal presentations. Breech presentation. Occipito posterior position. Brow presentation. Face presentation. Cord prolapse/compound presentation. Transverse lie/unstable lie. Multiple pregnancy. 	C3P2A2 C3P2A2 C3P2A2 C3P2A2 C3P2A2 C3P2A2 C3P2A2 C3P2A2 C3P2A2 C3P2A2	WARD/SGD WARD/SGD WARD/SGD WARD/SGD WARD/SGD WARD/SGD WARD/SGD WARD/SGD WARD/SGD WARD/SGD	OSPE/LC OSPE/LC OSPE/LC OSPE/LC OSPE/LC OSPE/LC OSPE/LC OSPE/LC OSPE/LC OSPE/LC
Module-8: Postpartum care	<ul style="list-style-type: none"> Puerperium (normal and abnormal). Examination of the new-born baby. Resuscitation of new-born. Minor problems of the new-born. Foetal congenital abnormalities. 	C3P2A2 C3P2A2 C3P2A2 C3P2A2 C3P2A2	WARD/SGD WARD/SGD WARD/SGD WARD/SGD WARD/SGD	OSPE/LC OSPE/LC OSPE/LC OSPE/LC OSPE/LC
Module-9: Obstetrics Procedures	<ul style="list-style-type: none"> Operation delivery, Forceps delivery. Vacuum delivery, Caesarean section. Examination of the new-born baby. Resuscitation of new-born. Vital statistics 	C3P2A2 C3P2A2 C3P2A2 C3P2A2 C3P2A2	WARD/SGD WARD/SGD WARD/SGD WARD/SGD WARD/SGD	OSPE/LC OSPE/LC OSPE/LC OSPE/LC OSPE/LC

Contents	Objectives	Domain	Strategy	Assessment
Module-10: Anatomy and physiology of female genital tract				
	<ul style="list-style-type: none"> • Introduction. • Anatomy of female • Genital organs, Development of female genital organs. • Puberty and adolescence. • Ovulation and its clinical importance. • Normal menstruation. 	C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
Module-11: Menstrual Disorders				
	<ul style="list-style-type: none"> • Menstrual abnormalities. • Gynaecological history taking and examination • Menopause, Hormone replacement therapy. 	C3P2A2 C3P2A2 C3P2A2	WARD/SGD WARD/SGD WARD/SGD	OSPE/LC OSPE/LC OSPE/LC
Module-12: Infertility and Contraception				
	<ul style="list-style-type: none"> • Infertility. • Contraception. • Ectopic pregnancy. 	C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ
Module-13: Neoplastic disorders of genital tract				
	<ul style="list-style-type: none"> • Trophoblastic tumours. • Vulval lesions • Tumours of vagina. • Tumours of cervix. • Tumours of uterus. • Tumours of ovaries. • Tumours of fallopian tubes. 	C3 C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
Module-14: Pelvic floor disorders and urogynecology				
	<ul style="list-style-type: none"> • Genital prolapse. • Pelvic floor injuries. • Urogynaecology. • Problems of marriage and sex. 	C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ

Contents	Objectives	Do-main	Strategy	Assessment
Module-15: Infectious disorders of female genital tract				
	<ul style="list-style-type: none"> Vaginal discharges. Infections of female genital tract Infections of upper genital tract Infections of lower genital tract 	C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
Module 16: Gynaecological surgery				
	<ul style="list-style-type: none"> Minor gynaecological operative procedures. Major gynaecological operative procedures. Pre-operative preparations. Post-operative complications and its management. Role of USG in gynaecology. 	C3P2A2 C3P2A2 C3P2A2 C3P2A2 C3P2A2	OT/S-LAB OT/S-LAB OT/S-LAB OT/S-LAB OT/S-LAB	OSPE/MCQ OSPE/MCQ OSPE/MCQ OSPE/MCQ OSPE/MCQ
Module 17: Clinical Skills				

Domain	Level
Knowledge	C1 Knowledge C2 Comprehension C3 Application C4 Analysis C5 Synthesis C6 Evaluation
Psychomotor	P1 Observe P2 Practice P3 Adjust P4 Master P5 Develop P6 Construct
Affect	A1 Receiving A2 Responding A3 Valuing A4 Organization A5 Characterization