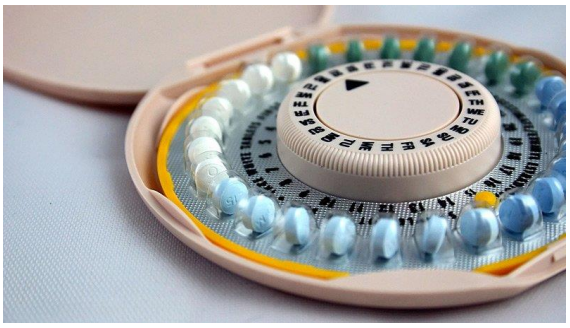
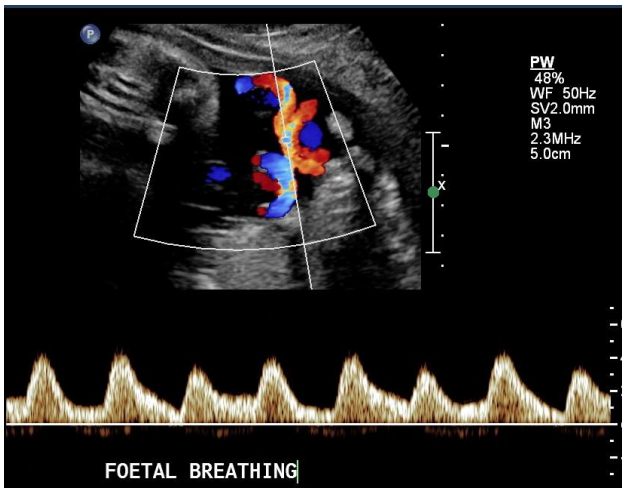


STUDY GUIDE

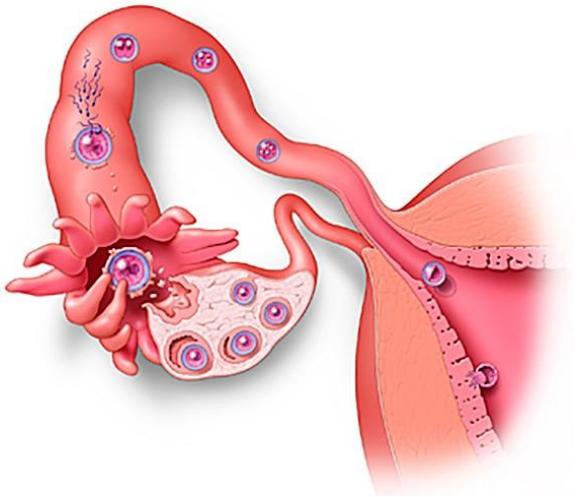
REPRODUCTIVE MODULE 2

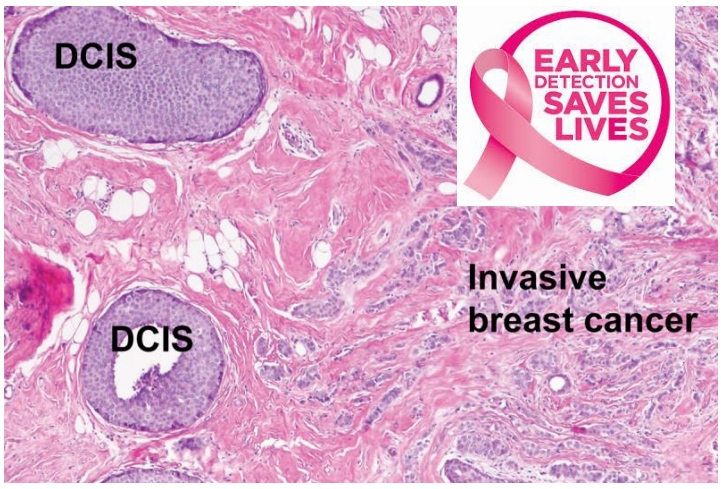
FOURTH YEAR MBBS



16th March –16th May 2020

Duration: 9 weeks





LIAQUAT NATIONAL HOSPITAL AND MEDICAL COLLEGE

Institute for Postgraduate Medical Studies & Health Science

STUDY GUIDE FOR REPRODUCTIVE 2 MODULE

Module name: **Reproductive System-II** *Year:* ***Four*** *Duration:* ***9 weeks (Mar – May 2020)***

Timetable hours: **Lectures, Case-Based Discussion (CBD),Clinical Rotations, Task Oriented Learning, Task Presentation, Demonstrations, Skills, Self-Study**

MODULE INTEGRATED COMMITTEE

MODULE COORDINATOR:	*Dr. Tahira Yasmeen (Assistant Professor, Obstetrics &Gynecology)*
CO-COORDINATORS:	*Dr. Afifa Tabassum (DHCE)*

DEPARTMENTS' & RESOURCE PERSONS' FACILITATING LEARNING

BASIC HEALTH SCIENCES	CLINICAL AND ANCILLARY DEPARTMENTS
ANATOMY • Professor Zia-ul-Islam	***BEHAVIORAL SCIENCES*** • Dr. Ayesha Muqeem Qureshi
COMMUNITY MEDICINE • Dr. Saima Zainab	***FAMILY MEDICINE*** • Dr. Faridah Amin
MICROBIOLOGY • Professor S. Khursheed Hassan Hashmi	***OBSTETRICS & GYNECOLOGY*** • Professor Zehra Naqvi • Dr. Tahira Yasmeen
PATHOLOGY • Professor Naveen Faridi	***RADIOLOGY*** • Dr. Misbah Tahir
PHARMACOLOGY • Professor Nazir Ahmed Solangi	***UROLOGY*** • Dr. Shahab Javaid
PHYSIOLOGY • Professor Syed Hafeez-ul-Hassan	***RESEARCH&SKILLS DEVELOPMENT CENTER*** • Dr. Kahkashan Tahir
	SURGERY • Professor Rufina Soomro
DEPARTMENT of HEALTH PROFESSIONS EDUCATION • Professor Nighat Huda • Dr. Sobia Ali • Dr. Afifa Tabassum • Dr. M. Suleman Sadiq • Dr. Mehnaz Umair	
LNH&MC MANAGEMENT • Professor K.U. Makki, Principal LNH&MC • Dr. Shaheena Akbani, Director A.A&R.T LNH&MC	
STUDY GUIDE COMPILED BY: Faiza Ambreen , Department of Health Professions Education	

INTRODUCTION

WHAT ISA STUDY GUIDE?

It is an aid to:

- Inform students how student learning program of the semester-wise module has been organized
- Help students organize and manage their studies throughout the module
- Guide students on assessment methods, rules and regulations

THE STUDYGUIDE:

- Communicates information on organization and management of the module.
  This will help the student to contact the right person in case of any difficulty.
- Defines the objectives which are expected to be achieved at the end of the module.
- Identifies the learning strategies such as lectures, small group teachings, clinical skills, demonstration, tutorial and case based learning that will be implemented to achieve the module objectives.
- Provides a list of learning resources such as books, computer assisted learning programs, web-links, journals, for students to consult in order to maximize their learning.
- Highlights information on the contribution of continuous and semester examinations on the student's overall performance.
- Includes information on the assessment methods that will be held to determine every student's achievement of objectives.
- Focuses on information pertaining to examination policy, rules and regulations.

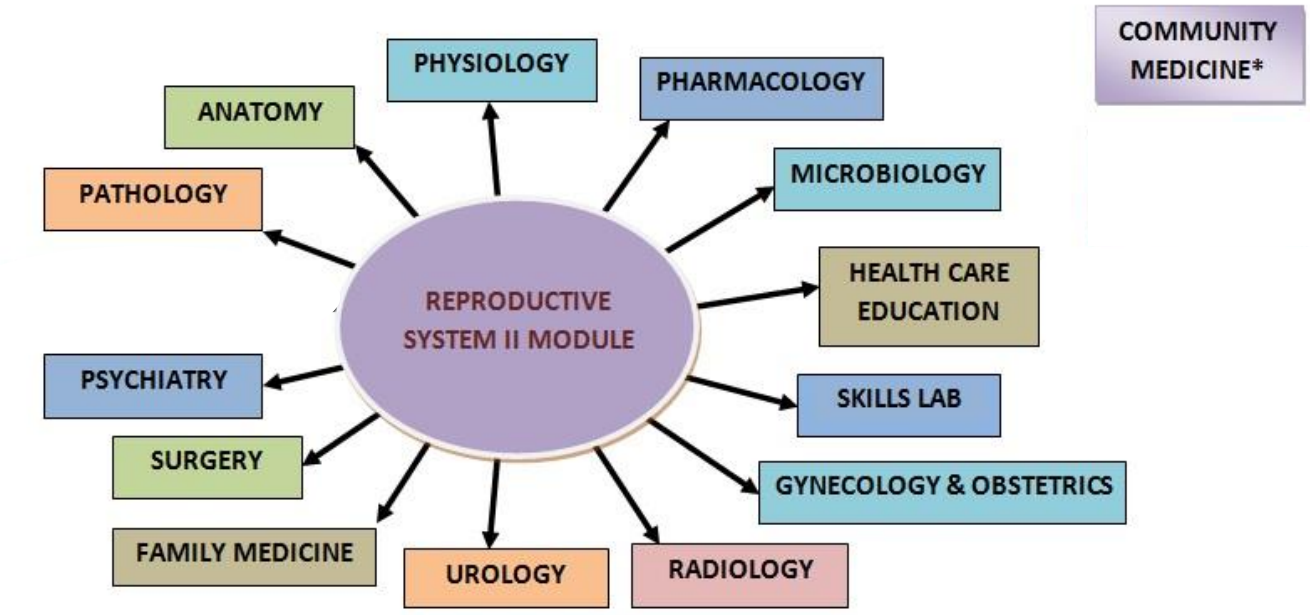
CURRICULUM FRAMEWORK

Students will experience *integrated curriculum* similar to previous modules of all 6semesters**.** In 7th semester 49 students of group A and B will experience ENT and 48 of Group C and D will experience Eye. Similarly in 8th Semester the groups will reciprocate i.e the later 48 students will experience ENT and 49 will experience Eye.

INTEGRATED CURRICULUM comprises system-based modules such as Eye/ENT, Orthopedics and Reproductive System-II which links basic science knowledge to clinical problems. Integrated teaching means that subjects are presented as a meaningful whole. Students will be able to have better understanding of basic sciences when they repeatedly learn in relation to clinical examples.

LEARNING EXPERIENCES: Case based integrated discussions, Task oriented learning followed by task presentation, skills acquisition in skills lab, computer-based assignments, learning experiences in clinics, wards.

INTEGRATING DISCIPLINES OF REPRODUCTIVE SYSTEM II MODULE



***Note: Community medicine will run parallel in 7 and 8 semesters**

LEARNING METHODOLOGIES

The following teaching/learning methods are used to promote better understanding:

- Interactive Lectures
- Small Group Discussion
- Case- Based Discussion (CBD)
- Clinical Experiences
  - Clinical Rotations
- Skills session
- Task-Oriented Learning
  - Task Presentation

INTERACTIVE LECTURES: In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying phenomena through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.

SMALL GROUP SESSION: This format helps students to clarify concepts, acquire skills or desired attitudes. Sessions are structured with the help of specific exercises such as patient case, interviews or discussion topics. Students exchange opinions and apply knowledge gained from lectures, tutorials and self study. The facilitator role is to ask probing questions, summarize, or rephrase to help clarify concepts.

CASE-BASED DISCUSSION (CBD):A small group discussion format where learning is focused around a series of questions basedon a clinical scenario. Students' discuss and answer the questions applying relevant knowledge gained previously in clinical and basic health sciences during the module and construct new knowledge. The CBD will be provided by the concerned department.

CLINICAL LEARNING EXPERIENCES: In small groups, students observe patients with signs and symptoms in hospital wards, clinics and outreach centers. This helps students to relate knowledge of basic and clinical sciences of the module and prepare for future practice.

- **CLINICAL ROTATIONS:** In small groups, students rotate in different wards like Medicine, Pediatrics, Surgery, Obs & Gyne, ENT, Eye, Family Medicine clinics, outreach centers & Community Medicine experiences. Here students observe patients, take histories and perform supervised clinical examinations in outpatient and inpatient settings. They also get an opportunity to observe medical personnel working as a team. These rotations help students relate basic medical and clinical knowledge in diverse clinical areas.

SKILLSSESSION: Skills relevant to respective module are observed and practiced where applicable in simulated-learning environment such as skills laboratory.

SELF-DIRECTED STUDY: Students' assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

TASK ORIENTED LEARNING:

What is Task Oriented Learning (TOL)?

In this module, objectives will be achieved by using multiple instructional strategies other than lectures only. **Task oriented learning** is being introduced to enhance students' learning and to get insight of the content necessary to move forward in to practical application of course materials. Students will be engaged in self directed learning as well as peers' collaboration and faculty led instructions

Process of TOL

Learning in this strategy will comprises of two stages
Stage 1: Pre-class learning in groups
Stage 2: In-class group focused active learning

Stage 1 (Pre-Class)	Stage 2 (In-Class)
Individual/group study and Group presentation **preparation**	Group presentation and assessment by facilitator followed by Q/A session

TOL process stage1:

Students will be divided in 6 sub groups (8-9 members in each sub group). Students' group will be given task based on few objectives. These objectives will be emailed (For groupings see Appendix B).

Students will have defined time slots for achieving the objectives. They will be required to study the authentic websites and work in groups to develop presentations during allotted study hours.

TOL process stage2:

The groups will then be required to present their PPT/Prezi in class to show their understanding of subject matter.

Time for group presentation: Each presentation should not exceed 10 minutes followed by five minutes discussion

Assessment

The group presentations and collaborative work will be graded on defined criteria (See Appendix A). Each student is to demonstrate active participation and effective contribution during the group activities. It is mandatory for the students to participate in this activity as their scores will contribute to **internal evaluation**.

MODULE: REPRODUCTIVE 2

INTRODUCTION

Reproductive health (RH) is a state of complete physical, mental and social well-being in all matters relating to the reproductive system. Reproductive Health is essential for peoples' overall well-being. Hence Reproductive health and specifically women's reproductive health is given prime importance at a global level.

Despite improvement in the reproductive health status of population in Pakistan, it is much below the desired Sustainable Development Goal target level. The maternal mortality ratio (MMR) for Pakistan is 178 per 100,000 live births majority resulting from preventable causes related to pregnancy and childbirth. Maternal health and newborn health are closely linked. The reported perinatal mortality rate of Pakistan is 64 per 1,000 births.

This module will address common Maternal and child health issues including safe motherhood, contraception, abortion, Infant health care, Sexually Transmitted Diseases and HIV/AIDS, infertility. It will also address the RH related issues of men.

1. Bhutta ZA, Hafeez A, Rizvi A, Ali N, Khan A, Ahmad F, Bhutta S, Hazir T, Zaidi A, Jafarey SN. Reproductive, maternal, newborn, and child health in Pakistan: challenges and opportunities. The Lancet. 2013 Jun 28;381(9884):2207-18.
2. WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division. Trends in Maternal Mortality: 1990 to 2015. Geneva, World Health Organization, 2015
3. United Nations Population Division's World Population Prospects, 2016. Available from: https://data.worldbank.org/indicator/SP.DYN.IMRT.IN
4. Sheet WF. Maternal Mortality. World Health Organization webpage, World Health Organization. 2013;1.

MODULE OBJECTIVES AND STRATEGIES

By the end of Reproductive 2 module students should be able to:

Introduction/Review		
Objectives	***Teaching Strategy***	***Department***
• Describe the structure of male and female genital tract • Identify the gross anatomical features of female external genitalia • Describe the gross anatomy of the female pelvic organs i-e ovaries, uterine tubes, the uterus with its supporting ligaments and the vagina	Interactive Lecture	Anatomy
• Explain the role of clinical pelvimetry	Small Group Session	
• Discuss androgens in detail • Classify antiandrogens. Discuss their clinical uses / effects and adverse effects • Classify and discuss pharmacological properties of estrogens • Discuss antiestrogens in details along with pharmacological profile	Small Group Session	Pharmacology
GYNECOLOGY		
Developmental disorders of Female genital tract		
• Discuss pathogenesis, morphology and clinical features of Septate or double vagina and Gartner duct cysts	Interactive Lecture	Pathology
Sexually Transmitted Infections (STIs)		
• Describe the etiology and pathophysiology of Sexually Transmitted Infections (STIs)	Interactive Lecture	Microbiology
• Identify, under microscope, the organisms involved in Sexually Transmitted Infections	Practical	
• Classify infections of the lower and upper genital tract in relation to their morphology & clinical effects	Practical	Pathology
• Describe etiology, pathophysiology, symptoms, signs, investigations and treatment plan for STIs in males (Epididymitis ,orchitis, prostatitis (chlamydia, gonorrhoea, non-specific urethritis,	Interactive Lecture	Urology

genital herpes, genital warts, syphilis and HIV)		
• List the causes of vaginal discharge • Differentiate between a normal vaginal discharge (Leucorrhea) and pathological vaginal discharge on the basis of clinical history • Describe symptoms, signs, investigations and treatment options for vaginal discharge due to Candidiasis, Bacterial vaginosis, Trichomoniasis, Gonorrhea and Chlamydia trachomatis infection. • Discuss steps for prevention and recurrence of vaginal discharge	Task Oriented Learning	ObGyn
• Explain the importance of pre and post HIV test Counseling • Identify issues of confidentiality in dealing with a patient with STI	Small group session	Family medicine
Pelvic Inflammatory Disease		
• Define Pelvic Inflammatory disease (PID) • Explain the etiology of PID i.e. Sexually Transmitted Infections (STIs), Post delivery PID, Post abortion PID and Post surgical PID • Diagnose PID based on symptoms, signs and investigation findings • Discuss the differential diagnosis of PID and its possible complications • Discuss the management options for acute and chronic PID	Interactive Lecture	ObGyn
Amenorrhea/Dysmenorrhae		
• Define primary & secondary amenorrhea and oligomenorrhea • Explain the etiology, symptoms and signs, investigations and treatment options for primary, secondary amenorrhea and oligomenorrhea • Based on data provided, differentiate among the three types of amenorrhea • Interpret the hormone profile report for PCOS • Discuss etiology, pathophysiology, diagnosis, and management options for PCOS	Interactive Lecture	ObGyn

• Define Primary & Secondary dysmenorrhea • Describe etiology, pathophysiology, symptoms, signs for primary & secondary dysmenorrhea	Interactive Lecture	
Fibroids		
• Differentiate among the various types of fibroids based on their etiology, symptoms, signs and pathophysiology • Justify selection of investigations for fibroid uterus • Justify management plans for Fibroids	Task Oriented Learning	ObGyn
Benign tumors of genital tract		
• Differentiate among the various types of ovarian cysts and polyps based on their etiology, pathophysiology, symptoms, signs • Justify selection of investigations for ovarian cysts, polyps • Justify management plans for ovarian cysts, polyps • On the basis of given data Identify the clinical features, risk factors of various vulvovaginal conditions • Justify selection of investigations for various vulvovaginal conditions	Interactive Lecture	ObGyn
Ectopic Pregnancy		
• Define ectopic pregnancy • Discuss differential diagnosis of acute abdomen in women • Based on data provided (history, examination findings, investigation reports) diagnose ectopic pregnancy • Discuss the treatment options for ectopic pregnancy including the criteria for medical treatment	Interactive Lecture	ObGyn
Abortion		
• Define abortion according to WHO criteria • Differentiate among the various types of abortions based on data provided(history, examination findings, investigation reports)	Task Oriented Learning	ObGyn

• Describe the treatment options for each type of abortion		
Infertility		
• Define Sub-fertility • Based on data provided (history, examination findings, investigation reports) diagnose sub fertility in a male and female • Discuss the causes of anovulation in women • Interpret the reports of Semen analysis in male and hormone profile in female	Interactive Lecture	ObGyn
• Describe the psychosocial issues associated with infertility • Describe ethical issues confronted by patients with infertility	Interactive Lecture	Psychiatry
Tumors Of Lower Female Genital Tract		
• Describe benign and malignant lesions of vulva and vagina	Interactive Lecture	Pathology
• List the risk factors, pathogenesis and morphological types of cervical carcinoma	Interactive Lecture	
Tumors Of Upper Female Genital Tract		
• Discuss premalignant Uterine lesions • Discuss pathogenesis, molecular markers and morphological subtypes of Endometrial carcinoma	Interactive Lecture	Pathology
• Discuss the uterine stromal and myometrial tumors	Small Group Discussion	
• Classify Ovarian tumors • List Subtypes of surface epithelial tumors and describe their pathogenesis	Interactive Lecture	
• List Germ cell tumors of ovary with their tumor makers	Interactive Lecture	
• Identify gross pathology and microscopic slides of malignant tumors of female genital tract	Practical	
Instruments in Gynecology		
Identify and discuss uses of: • Cisco speculum • Sims • Ayers spatula • Instruments of DNC & MVA	Small group session	Obgyn

OBSTETRICS		
Normal Pregnancy		
• Based on data provided, diagnose a case of pregnancy • Discuss the physiological changes during pregnancy in the pregnant woman	Interactive Lecture	ObGyn
• Discuss the incidence, types and causes of multiple pregnancy • Describe the signs and symptoms, diagnosis, investigations and management of multiple pregnancy • Discuss the difference between monochorionic and dichorionic pregnancies	Task Oriented Learning	ObGyn
• Take a detailed history from an Obstetric and Gynecologic real or simulated patient	Skills	
• Discuss psychopharmacology during pregnancy	Interactive Lecture	Psychiatry
• Explain contraindicated and safe drugs in pregnancy	Interactive Lecture	Pharmacology
Antenatal Care		
• Describe the importance and process of antenatal care	Interactive Lecture	ObGyn
• Differentiate between the terms screening and diagnosis and between screening and diagnostic tests • Discuss the purpose and advantages of prenatal diagnosis and explain the differences • List indications for prenatal screening and diagnosis especially for Down's syndrome and neural tube defects • Explain the basic procedures, advantages and disadvantages of diagnostic procedures including chorionic villous sampling, amniocentesis and chordocentesis	Interactive Lecture	ObGyn

Reproductive health issues		
• Discuss the maternal health situation in Pakistan • Discuss the important causes of maternal mortality and morbidity • Describe maternal health services • Describe the levels of obstetric care including obstetric first aid, basic EmNOC, comprehensive EmNOC. • Discuss methods for improving maternal and perinatal mortality and morbidity	Interactive Lecture	ObGyn
• List early and late complications of Pregnancy • Describe the pathogenesis of Eclampsia	Interactive Lecture	Pathology
Early complications in pregnancy		
• List the most common pregnancy complications. • Describe the incidence and risk factors for the most prevalent pregnancy complications. • Based on data provided (history, examination findings, investigation reports) identify signs and symptoms in women affected by pregnancy complications. • Discuss the medical management provided in response to pregnancy complications. • Describe maternal and fetal implications arising from the most prevalent pregnancy complications	Interactive Lecture	ObGyn
Normal Labor		
• Define labor • Explain the stages of normal labor. • Describe the basic mechanisms of labor evaluation • Describe the 7 cardinal movements of labor • Explain the technique of proper delivery, traction, and handling of infant after delivery	Small Group Discussion	ObGyn
• Perform per-abdominal examination of a pregnant female / mannequin according to prescribed steps	Skills	RSDC

• Define Induction and Augmentation of labor • Explain indications, contraindication, advantages, disadvantages of Induction and Augmentation of labor • Discuss the monitoring and management of induced and augmented labor	Interactive lecture	ObGyn
UTI in pregnancy		
• Based on data provided, diagnose UTI pregnant women • Discuss the principles for effective investigation and treatment.	Small group session	ObGyn
Infections in pregnancy		
• Discuss the prevention, investigation, diagnosis, prognosis and management of Infections in pregnancy	Task Oriented Learning followed by task Presentation	ObGyn
Abnormal Labour		
• Define malpresentations and Malpositions and list the different types for each • Describe causes of Breech, Transverse lie and other malpresentations and malpositions • Describe the management options for each malpresentation and malposition	Small Group Discussion	ObGyn
• Define obstructed labor • List the main causes of obstructed labour • Describe how each factor contributes to the development of this complication • Describe the clinical signs of obstructed labour • List the common maternal and fetal complications that result from uterine obstruction • Describe the management of obstructed labour	Interactive Lecture	ObGyn
IUGR And Small For Gestational Age (SGA)		
• Define the terms IUGR, SGA, Low birth weight and very low birth weight infant • Describe the evaluation, investigation and management of a fetus with IUGR	Interactive Lecture	Obgyn

Analgesia & anesthesia in obstetrics		
• Describe analgesic techniques in labor and cesarean delivery • Describe different anesthetic options used in labor and cesarean delivery including the risks and benefits of general anesthesia, spinal anesthesia, epidural anesthesia, pudendal nerve block, and narcotics in obstetrics	Interactive Lecture	Obgyn
Care of Newborn		
• Discuss the advantages of breastfeeding for the baby, mother, family, and country • Counsel the mother about advantages of breast feeding • Explain the significance of self-breast examination and clinical examination	Task Oriented Learning followed by task Presentation	ObGyn
Puerperium		
• Define puerperium Describe signs and symptoms of normal and abnormal puerperium and its management (including for puerperal pyrexia and puerperal sepsis)	Interactive Lecture	ObGyn
• Discuss the clinical presentation of post-partum depression	Interactive Lecture	Psychiatry
Gestational Trophoblastic Disease		
• List gestational trophoblastic diseases • Differentiate between Partial and Complete hydatidiform mole	Small Group Discussion	Pathology
• Describe the principles of management of both benign and malignant varieties	Interactive Lecture	Obgyn
Breast Cancer		
• Discuss the etiology, pathogenesis and morphology of benign breast diseases.	Interactive Lecture	Pathology
• Recognize the various risk factors in development of breast cancer • Differentiate between Hereditary and Sporadic breast cancer in terms of pathogenesis	Interactive Lecture/practical	Pathology

• Classify various morphological types of DCIS and Invasive carcinoma in terms of morphology and prognosis		
• Identify prognostic & predictive factors in breast cancer and their importance in breast cancer management • Recognize the stages of breast cancer	Interactive Lecture	Pathology
• List molecular subtypes of breast cancer	Small Group Discussion	
• discuss the clinical presentation of benign and malignant breast tumors	Interactive Lecture	Surgery
Male Genital System		
• Classify Testicular tumors • Disucuss the pathogenesis and risk factors of Germ cell tumors	Interactive Lecture	Pathology
• Identify gross pathology & microscopic slides of benign lesions & tumors of MGT	Practical	
• Discuss the clinical presentation of different types of testicular tumors	Interactive Lectures	Urology
Contraception		
• Discuss in detail mechanism of action, effects clinical uses and toxicity of progestins • Explain antiprogestins in detail • Discuss clinical uses and adverse effects of antiprogestins • Enlist different combinations of hormonal contraceptives • Explain their mechanism of action , clinical uses and potential toxicities	Interactive Lecture	Pharmacology
• Discuss the use of various contraceptive methods with the patient	Small Group Discussion	Family medicine
Imaging Modalities in ObGyn		
• Describe the use of ultrasound for the evaluation and diagnosis of different Gynaecological disorders	Interactive Lecture	Radiology
• Identify Different hard and soft copy views of x rays , contrast x-rays , laparoscopic views (adnexal mass, ruptured and unruptured ectopic pregnancy, PID and TO mass, endometriosis, pelvic adhesions) and hysteroscopic views (endometrial polyp, normal uterine cavity,	Interactive Lecture	Obgyn

submucus fibroid, septate uterus) including Colposcopic views of cervix.		
Domestic and Sexual Violence		
• Identify patients at increased risk for domestic and sexual violence. • Describe the medical and psychosocial management of a victim of sexual assault	Interactive Lectures	Psychiatry
Community Medicine		
• Define research and its components • List misconceptions about Research • Discuss the purpose and advantages of research, and literature review • Explain Plagiarism • Classify study designs • Define each type of study design • Discuss the importance of study designs in research • Describe the types of descriptive study designs along with advantages and disadvantages • Describe the types of analytical study design and explain the case-control study design along with its advantages and disadvantages and measure of association • Define Analytical Study Designs • Describe types of Analytical Study Designs • List advantages and disadvantages of Analytical Study Designs • Differentiate between Vancouver and Harvard style of reference writing and name the tools for reference writing • Discuss importance and outline of Introduction Writing • List steps of Introduction Writing	Interactive Lectures / Small Group Discussions	

Apart from attending daily scheduled sessions, students too should engage in self-study to ensure that all the objectives are covered

LEARNING RESOURCES

SUBJECT	*RESOURCES*
ANATOMY	**A. GROSS ANATOMY** 1. K.L. Moore, Clinically Oriented Anatomy **B. EMBRYOLOGY** 1. KeithL. Moore. The Developing Human 2. Langman's Medical Embryology
COMMUNITY MEDICINE	**TEXTBOOKS** 1. Community Medicine by Parikh 2. Community Medicine by M Ilyas 3. Basic *Statistics* for the Health Sciences by Jan W Kuzma
OBGYN	**TEXT BOOK** 1. Obstetrics by Ten Teachers, Louise C. Kenny, Jenny E. Myers 2. Gynaecology by Ten Teachers, Louise Kenny, Helen Bickerstaff 3. Hacker & Moore's Essentials of Obstetrics and Gynecology 4. Textbook of Gynecology, Rashid Latif Khan 5. Fundamentals of Gynaecology, Dr Arshad Chohan
PATHOLOGY/MICROBIOLOGY	**TEXTBOOKS** 1. Robbins & Cotran, Pathologic Basis of Disease,9th edition. 2. RapidReviewPathology,4th edition by Edward F. Goljan MD
	WEBSITES: 1. http://library.med.utah.edu/WebPath/webpath.html 2. http://www.pathologyatlas.ro/
PHYSIOLOGY	**A. TEXTBOOKS** 1. Textbook Of Medical Physiology by Guyton And Hall 2. Ganong's Review of Medical Physiology 3. Human Physiology by Lauralee Sherwood 4. Berne & Levy Physiology 5. Best & Taylor Physiological Basis of Medical Practice
PEDIATRICS	**TEXT BOOK:** Basis of Pediatrics (8th Edition Pervez Akbar)

ADDITIONAL LEARNING RESOURCES

Hands-on Activities/ Practical	Students will be involved in Practical sessions and hands-on activities that link with the Reproductive Module to enhance learning.
Museum	Models available in the museum are a rich learning resource for quick review of anatomy and related educational activities
Skills Lab	Skills acquisition in a simulated environment in the skills lab involving experiential learning will ensure patient safety and will also help to build confidence in approaching the patients
Internet Resources	Students will use easily accessible internet resources with added time flexibility to enrich and update their knowledge and its application

ASSESSMENT METHODS:

- **Best Choice Questions(BCQs)** also known as MCQs (Multiple Choice Questions)
- **Objective Structured Practical/Clinical Examination (OSPE or OSCE)**

BCQs:

- A BCQ has a statement or clinical scenario of four options (likely answers).
- **Correct answer carries one mark, and incorrect 'zero mark'. There is NO negative marking.**
- Students mark their responses on specified computer-based sheet designed for LNHMC.

OSCE:

- All students rotate through the same series of stations in the same allocated time.
- At each station, a brief written statement includes the task. Student completes the given task at one given station in a specified time.
- Stations are observed, unobserved, interactive or rest stations.
- In unobserved stations, flowcharts, models, slide identification, lab reports, case scenarios may be used to cover knowledge component of the content.
- Observed station: Performance of skills /procedures is observed by assessor
- Interactive: Examiner/s ask questions related to the task within the time allocated.
- In Rest station, students in the given time not given any specific task but wait to move to the following station.

Internal Evaluation

- Students will be assessed comprehensively through multiple methods.
- 20% marks of internal evaluation will be added to JSMU final exam. That 20% may include class tests, assignment, practicals and the internal exam which will all have specific marks allocation.

Formative Assessment

Individual department may hold quiz or short answer questions to help students assess their own learning. The marks obtained are not included in the internal evaluation

For JSMU Examination Policy, please consult JSMU website!

	More than 75% attendance is needed to sit for the internal and final examinations	

LNH&MC EXAMINATION RULES & REGULATIONS

- Student must report to examination hall/venue, 30 minutes before the exam.
- **Exam will begin sharp at the given time.**
- No student will be allowed to enter the examination hall after 15 minutes of scheduled examination time.
- Students must sit according to their roll numbers mentioned on the seats.
- **Cell phones are strictly not allowed in examination hall.**
- If any student is found with cell phone in any mode (silent, switched off or on) he/she will be not be allowed to continue their exam.
- No students will be allowed to sit in exam without University Admit Card, LNMC College ID Card and Lab Coat
- Student must bring the following stationary items for the exam: Pen, Pencil, Eraser, and Sharpener.
- Indiscipline in the exam hall/venue is not acceptable. Students must not possess any written material or communicate with their fellow students.

SCHEDULE:

WEEKS	4TH YEAR	MONTH
WEEKS 1 -9	REPRODUCTIVE SYSTEM II MODULE	16th March 2020
		16th May 2020
WEEKS 1-9	NEUROSCIENCES II MODULE	18th May 2020*
		13th July 2020*
	Revision Classes (Earlier Modules)	2020*

*Final dates will be announced later