



**Study Guide**  
**OF GYNECOLOGY & OBSTETRICS**  
**FOR 5<sup>th</sup> PROFF MBBS**



**PREPARED BY**

**DR. MUHAMMAD ALI TAHIR**

**FINAL YEAR MBBS STUDENT**

**MESSAGE FROM PRINCIPAL,  
AVICENNA MEDICAL COLLEGE****PROF. DR. GULFREEM WAHEED**

It is a pleasure to see Avicenna Medical College develop, progress and achieve maximum academic excellence in a short period since its inception in 2009. The institution has live up to its mission of training and producing medical graduates of international standards. We have achieved several milestones since 2009 including the recognition of our College for FCPS training by College of Physicians and Surgeons of Pakistan (CPSP), establishment of College of Nursing and Avicenna Dental College.

As a Principal I am fortunate to take quick decisions and student friendly measures, yet managing the high standards of Medical Education at the campus. The students at Avicenna are provided with an encouraging environment conducive to their learning and growth and are trained on the pattern test concepts and strategies in Medical Education. They are groomed on modern lines with due emphasis on the highest standards of discipline, Medical Professionalism, Medical and Social ethics in conformity to our cultural and religious values. These attributes along with an inclination towards research and development in academics is the focal point of our education system. Beyond this, we provide students with various opportunities to engage in co-curricular activities thus enabling them to bring out their naturally gifted talent. The student committee and clubs at Avicenna Medical College organizes events throughout the academic year which provide an opportunity to the students to enhance their talents and ability for teamwork. As an institution, we feel pride in the fact that we have won the confidence of the parents, who feel satisfied with the conservative yet progressive atmosphere of our Institution, high standards of Medical Education and discipline. Most parents show complete satisfaction once their child joins the 'Avicenna Family'. I welcome the batch of MBBS students to the continuously expanding family of Avicenna Medical College where diligent and devoted faculty members are ready to facilitate eager learners, enabling them to become future professionals and leaders. May Allah bless your endeavors with success and may you bring honors to your Alma Mater. Ameen!

**MESSAGE FROM HOD, OBS AND GYNAE****AVICENNA MEDICAL COLLEGE****DR.NUZHAT PARVEEN KHAWAJA****M.B.B.S.,F.C.P.S.****PROFESSOR/H.O.D.**

The Department of Gynae-Obs consists of highly qualified & experienced faculty, trained to manage all sorts of obstetrical emergencies & Gynaecological diseases. The department consists of comprehensive outpatient facilities to provide women-centered health care. The indoor facilities consist of Antenatal & Postnatal wards, Pre-op/post-op Gynae wards, High-risk pregnancy room & 1st stage of labor ward. Additionally, there are 3 Labour rooms, 2 Operation theatres, a CTG and an Ultrasound facility. The department has CTG & Ultrasound facility. For training of medical students and house officers we provide teaching aids like mannequins for fire drills and clinical practice facilities as per the protocol guidelines parallel to International standards.

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**WHAT IS A STUDY GUIDE?**

- Inform students how student learning program has been organized according to their learning objectives.
- Help students organize and manage their studies throughout the course.
- Guide students on assessment methods, rules and regulations

**THE STUDY GUIDE:**

- Communicates information on organization and management of the course. 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 course.
- 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 course 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.

**STUDENT'S OVERALL PERFORMANCE:**

- Includes information on the assessment methods that will be held to determine every student's

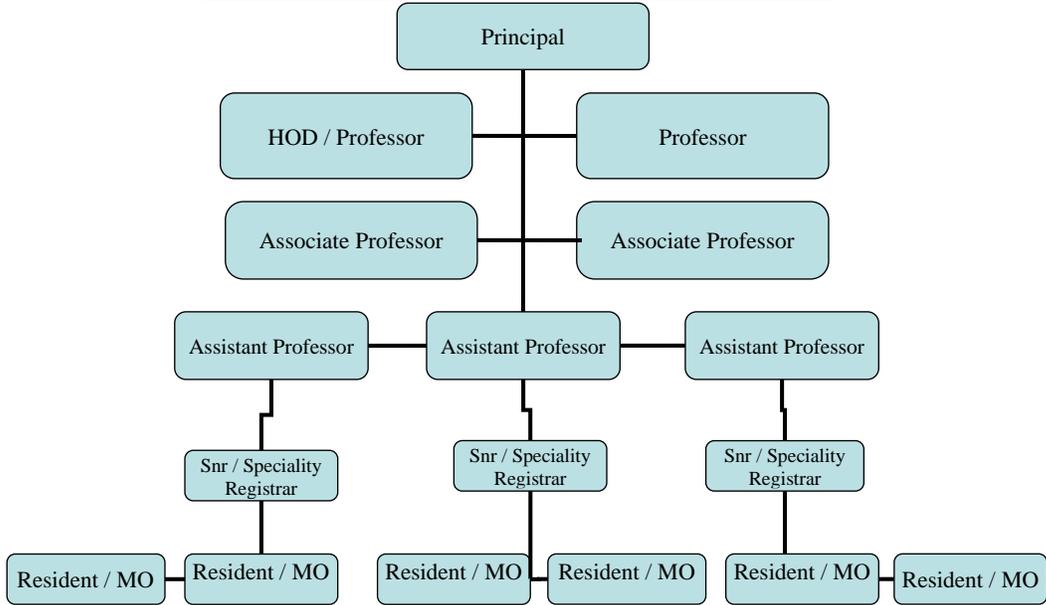
**ACHIEVEMENT OF OBJECTIVES:**

- Focuses on information pertaining to examination policy, rules and regulations.

## **INTRODUCTION TO THE DEPARTMENT**

The department of obstetrics and Gynecology provides modular teaching in the decorated APMC curriculum. We start introducing our specialties from the first academic year. We are using model teaching training methodology including one to one teaching. On the clinical side we provide comprehensive obstetrics and gynecology services at the obstetrics and Gynecology department, Avicenna Medical Hospital Lahore. We have faculty as per PMDC requirements. We will provide training to Post- graduate students in the near future. We have facilities to cater routine and high-risk pregnancies. Day care services for obstetrics and gynecology includes endoscopic services such as laparoscopy, Hysteroscopy and Colposcopy. We are capable of providing services to gynecology cancer patients and fistulas. Our students will have exposure to all modern technologies needed for training and Service.

**DEPARTMENT OF GYNAECOLOGY & OBSTETRICS**



## CURRICULIM & LEARNING OUTCOMES

TOPICS	LEARNING OUTCOMES
<b>Normal fetal development and growth</b>	<p>Theme: Normal fetal development and growth</p> <p>Sub theme: Fetal growth</p> <ol style="list-style-type: none"> <li>1. What are the determinants of fetal growth and birth weight</li> <li>2. Briefly discuss the fetal, maternal and placental influences on fetal growth and birth weight</li> </ol> <p>Sub theme: Fetal development</p> <ol style="list-style-type: none"> <li>1. Enlist four shunts in fetal circulation</li> <li>2. Describe development of cardiovascular system and fetal circulation</li> <li>3. Briefly discuss the development of fetal respiratory system</li> <li>4. What is physiological hernia</li> <li>5. What are common malformations associated with abnormal development of alimentary system.</li> <li>6. Enumerate the derivatives of foregut, midgut and hindgut</li> <li>7. Briefly describe the development of fetal kidneys and urinary tract and also name few malformations associated with this system.</li> <li>8. Describe the development of fetal skin and its function to facilitate homeostasis.</li> <li>9. Discuss the development of blood and immune system in fetus.</li> </ol> <p>Sub theme: Amniotic Fluid</p> <ol style="list-style-type: none"> <li>1. Enlist the different functions of amniotic fluid</li> <li>2. Define oligohydramnios and enlist few of its causes</li> <li>3. Define polyhydramnios and enumerate its common causes</li> </ol>
<b>Antenatal care</b>	<p>Obstetric history and examination</p> <p>At the end of the session students will be able to understand the</p> <ul style="list-style-type: none"> <li>• principles of taking obstetric history and</li> <li>• key components of obstetric examination</li> </ul> <p>Antenatal care</p> <p>Students will be able</p> <ul style="list-style-type: none"> <li>➤ To understand the principals of routine antenatal care.</li> <li>➤ To be aware of the rationale for, and purpose of clinical investigations during each trimester.</li> <li>➤ To differentiate normal pregnancy symptoms from potential underlying pathology.</li> <li>➤ To identify the factors making a pregnancy a high risk one.</li> </ul>
<b>Assessment of fetal well being</b>	<p>At the end of session students will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe the principal uses and safety of obstetrical ultrasound.</li> <li>2. Roll of routine ultrasound examination in 1<sup>st</sup> trimester</li> <li>3. Discuss the use of Doppler ultrasound in obstetrics</li> <li>4. Describe the ultrasound schedule in clinical practice</li> <li>5. Enlist different tests of fetal wellbeing</li> </ol>

			<ol style="list-style-type: none"> <li>6. Enlist the features which are observed in CTG and describe their importance.</li> <li>7. Describe Biophysical profile and its scoring system</li> <li>8. Enlist invasive obstetric diagnostic procedures that can be performed on ultrasound</li> </ol>
<b>Prenatal diagnosis</b>			<p>At the end of the session students will be able to</p> <ol style="list-style-type: none"> <li>1. Define prenatal diagnosis</li> <li>2. Significance of prenatal diagnostic testing</li> <li>3. Enlist attributes of a screening test</li> <li>4. Classify prenatal diagnostic tests</li> <li>5. Give examples of few conditions that can be diagnosed prenatally and the tests used for this purpose</li> <li>6. Discuss the role of counseling before prenatal testing and important aspects which have to be discussed during this counseling</li> <li>7. Name the invasive prenatal tests.</li> <li>8. Briefly describe the procedure of chorionic villus sampling and its pre requisites.</li> <li>9. Briefly describe the amniocentesis procedure</li> <li>10. Briefly describe the procedure of chordocentesis</li> <li>11. Give comparison of chorionic villus sampling, amniocentesis and cordocentesis.</li> <li>12. Discuss the screening tests for prenatal diagnosis of Down syndrome.</li> <li>13. What are the newer developments in field of prenatal diagnosis.</li> </ol>
<b>Antenatal obstetric complications</b>			<p><b>Theme : antenatal complications of pregnancy</b>  <b>Sub theme : minor problems of pregnancy</b></p> <p>At the end of the session students will be able to</p> <ol style="list-style-type: none"> <li>1. appreciate common musculoskeletal problems in pregnancy</li> <li>2. Briefly describe common gastrointestinal symptoms related to pregnancy</li> <li>3. Discuss the management of obstetric cholestasis</li> <li>4. Discuss the management of varicose veins in pregnancy.</li> <li>5. Briefly discuss the effect of fibroid on pregnancy and effects of pregnancy on fibroid</li> <li>6. Enlist the problems associated with bicornuate uterus</li> <li>7. Give management of ovarian cyst in pregnancy</li> <li>8. Give few predisposing factors for urinary tract infection during pregnancy</li> <li>9. Name the common organisms causing urinary tract infection in pregnancy</li> <li>10. Provide a differential diagnosis for abdominal pain in pregnancy and give brief management plan for them.</li> <li>11. Enlist the risk factors for thromboembolic disease in pregnancy</li> <li>12. Give investigations needed to diagnose deep venous thrombosis and pulmonary embolus</li> <li>13. Give treatment plan for venous thromboembolism</li> <li>14. Briefly describe the complications of drug abuse in pregnancy</li> </ol>

			<p><b>Sub theme: oligohydramnios and polyhydramnios</b></p> <ol style="list-style-type: none"> <li>1. Define oligohydramnios</li> <li>2. Enlist possible causes of oligohydramnios and describe its management</li> <li>3. Give common causes of polyhydramnios and discuss the management of polyhydramnios</li> </ol> <p><b>Sub theme: fetal malpresentations at term</b></p> <ol style="list-style-type: none"> <li>1. Name few malpresentations at term</li> <li>2. Give types of breech presentation</li> <li>3. Enumerate the predisposing factors for breech presentation</li> <li>4. Briefly discuss the antenatal management of breech presentation</li> <li>5. Describe external cephalic version and give its contraindications</li> <li>6. Name few risks associated with external cephalic version</li> <li>7. What are the pre-requisites for vaginal breech delivery how the labour with breech presentation is managed</li> <li>8. Give complications associated with vaginal breech delivery</li> </ol> <p><b>Sub theme : post term pregnancy</b></p> <ol style="list-style-type: none"> <li>1. Define post term pregnancy</li> <li>2. Give indications for immediate induction of labour and delivery in post date pregnancy</li> </ol> <p>Sub theme: vaginal bleeding in pregnancy</p> <ol style="list-style-type: none"> <li>1. Define antepartum haemorrhage</li> <li>2. Enlist causes of antepartum hemorrhage</li> <li>3. Give brief management of antepartum hemorrhage</li> </ol> <p><b>Sub theme : Rhesus isoimmunization</b></p> <ol style="list-style-type: none"> <li>1. Describe the etiology of rhesus disease</li> <li>2. Name few sensitizing events for rhesus disease and their management</li> <li>3. Briefly describe the prophylaxis of RH isoimmunization</li> <li>4. Give management of rhesus disease in a sensitized woman</li> </ol> <p><b>Sub theme: preterm labour</b></p> <ol style="list-style-type: none"> <li>1. Define preterm labour and give its common causes</li> <li>2. Describe important aspects in management of pre term labour</li> <li>3. Define PPROM</li> <li>4. Give management of PPROM</li> <li>5. How preterm labour can be predicted and prevented</li> <li>6. Give role of cervical cerclage in prevention of preterm labour</li> <li>7. Give different types of cervical cerclage</li> </ol> <p><b>Sub theme: fetal growth restriction</b></p> <ol style="list-style-type: none"> <li>1. Define intrauterine growth restriction</li> <li>2. Give common causes of fetal growth restriction</li> <li>3. Briefly discuss the pathophysiology of IUGR.</li> <li>4. Enlist common risk factors for IUGR</li> <li>5. Describe management of pregnancy complicated with fetal growth restriction</li> </ol>
<b>Multiple pregnancy</b>			<p>At the end of the session students will be able to</p> <ol style="list-style-type: none"> <li>1. Classify multiple pregnancies</li> <li>2. Describe the risk factors for multiple pregnancy and reason for increase in its incidence</li> <li>3. Enlist important points in care of a woman with a multiple pregnancy</li> </ol>

			<ol style="list-style-type: none"> <li>4. Discuss the complications of multiple gestation</li> <li>5. Describe twin twin transfusion syndrome and its management</li> <li>6. Describe the factors which are different from singleton pregnancy in the management of multiple pregnancy</li> </ol>
<p><b>Medical complications of pregnancy</b></p>			<p><b>Theme: medical disorders of pregnancy</b></p> <p><b>Sub theme: hypertensive disorders of pregnancy</b></p> <ol style="list-style-type: none"> <li>1. Classify the hypertensive disorders in pregnancy</li> <li>2. Define pregnancy induced hypertension</li> <li>3. Define pre eclampsia</li> <li>4. Enlist different risk factors for pre eclampsia</li> <li>5. Give important maternal and fetal complications of pre eclampsia</li> <li>6. Briefly describe the pathophysiology of pregnancy induced hypertension and pre eclampsia</li> <li>7. Define HELLP syndrome</li> <li>8. Name anti hypertensives which are safe in pregnancy</li> <li>9. Name emergency anti hypertensive drugs</li> <li>10. Describe the management of PIH and pre eclampsia</li> <li>11. Describe management of chronic hypertension in pregnancy</li> <li>12. Enlist risk factors for developing superimposed pre eclampsia in case of pregnancy with chronic hypertension.</li> </ol> <p><b>Subtheme: Renal disease</b></p> <ol style="list-style-type: none"> <li>1. Give brief overview of management of pregnancy with chronic kidney disease and in case of renal transplant patient</li> </ol> <p><b>Subtheme: Diabetes mellitus</b></p> <ol style="list-style-type: none"> <li>1. How to counsel a diabetic lady on pre pregnancy visit</li> <li>2. Define gestational diabetes</li> <li>3. Give maternal, fetal and neonatal complications of diabetes</li> <li>4. Discuss the management of diabetes in pregnancy</li> <li>5. Enlist the screening methods for diabetes in pregnancy</li> <li>6. Give pathophysiology of gestational diabetes</li> <li>7. What are the factors associated with poor pregnancy outcome in diabetes</li> </ol> <p><b>Sub theme: thyroid disease and parathyroid disease</b></p> <p>At the end of session student will be able to</p> <ol style="list-style-type: none"> <li>1. Understand the physiological changes in thyroid hormone levels in blood</li> <li>2. Effects of hypo and hyperthyroidism on pregnancy</li> <li>3. Give management of thyroid disorders during pregnancy</li> <li>4. Give management of parathyroid disease during pregnancy</li> </ol> <p>Sub theme: other endocrine problems in pregnancy</p> <ol style="list-style-type: none"> <li>1. Briefly describe the diagnosis and management of hyperprolactinemia in pregnancy</li> <li>2. Understand the impact of rare conditions like cushing's syndrome, conn's syndrome, addison's disease and pheochromocytoma if present during pregnancy</li> </ol> <p><b>Sub theme: heart disease</b></p> <ol style="list-style-type: none"> <li>1. Counsel a cardiac patient came for pre pregnancy advice</li> <li>2. Enlist the high risk cardiac conditions</li> <li>3. Give overview of management of pregnancy with known cardiac disease</li> <li>4. Classify stages of heart failure according to NYHA</li> </ol>

		<ol style="list-style-type: none"> <li>5. Describe the management of labour in cardiac patient</li> <li>6. Enlist the risk factors for development of heart failure in pregnancy and how the heart failure in pregnancy is managed.</li> <li>7. Give management of pulmonary hypertension in pregnancy <b>Sub theme: respiratory disease</b> At the end of session students will able to       <ol style="list-style-type: none"> <li>1. understand the management of respiratory infections presenting in pregnancy</li> <li>2. Tell the features of life threatening asthma and its management</li> <li>3. Give important aspects in management of cystic fibrosis in pregnancy Sub theme: neurological disorders           <ol style="list-style-type: none"> <li>1. Counsel an epileptic patient coming for pre pregnancy advice</li> <li>2. Enlist causes of seizures in pregnancy</li> <li>3. Describe management of epilepsy in pregnancy</li> <li>4. Understand the management of other neurological disorders like multiple sclerosis, migraine and bell's palsy in pregnancy <b>Subtheme: haematological disorders</b> <ol style="list-style-type: none"> <li>1. Name clinically significant variants of hemoglobin</li> <li>2. Briefly describe the management of sickle cell anemia</li> <li>3. Enlist important aspects in the management of sickle cell crises in pregnancy</li> <li>4. Discuss the management of thalassaemia in pregnancy</li> <li>5. Define thrombocytopenia</li> <li>6. Enlist causes of thrombocytopenia in pregnancy</li> <li>7. Enlist common bleeding disorders during pregnancy and delivery</li> <li>8. Give brief account of inharitted coagulation disorders and their management during pregnancy Sub theme: gastroenterology disorders               <ol style="list-style-type: none"> <li>1. Give course of peptic ulcer, coelic disease, inflammatory bowel disease and pancreatitis during pregnancy.</li> <li>2. Name different liver disorders that can present during pregnancy and their management <b>Sub theme: connective tissue disease in pregnancy</b> <ol style="list-style-type: none"> <li>1. Differentiate SLE flare from pre eclampsia</li> <li>2. Classify SLE according to American college of rheumatology</li> <li>3. Give classification criteria for APS</li> <li>4. Describe management of pregnancy in patient of APS</li> <li>5. Give brief management of rheumatoid arthritis in pregnancy</li> <li>6. Give management of scleroderma Sub theme: skin disease                   <ol style="list-style-type: none"> <li>1. Describe physiological changes in skin during pregnancy</li> <li>2. Give management of Atopic eczema in pregnancy</li> <li>3. Name few common pruritic conditions related to pregnancy and their brief management.</li> </ol> </li> </ol> </li> </ol> </li> </ol> </li> </ol> </li> </ol> </li></ol>
<b>Perinatal infection</b>		<b>Enlist the infection causing congenital abnormalities</b> <b>Rubella</b> <ol style="list-style-type: none"> <li>1. Discuss causative infecting organism its transmission</li> <li>2. Understanding of prevalence of rubella</li> <li>3. Discuss the screening of rubella</li> </ol>

		<p>4. Discuss effects the rubella on program in early and late trimester</p> <p>5. Define congenital rubella syndrome abnormalities associated with it</p> <p><b>Syphillis</b> Discuss management plan</p> <ol style="list-style-type: none"> <li>1. Name causative organism</li> <li>2. Understand of incidence</li> <li>3. Discuss the presentation of syphilis and primary and secondary syphilis</li> <li>4. Discuss the effects of syphilis on fetus</li> <li>5. Enumerate the laboratory investigations used for screening of syphilis</li> </ol> <p><b>Toxoplasmosis</b> Discuss the management plan during pregnancy and just after delivery</p> <ol style="list-style-type: none"> <li>1. Name the causative organism</li> <li>2. Understanding of prevalence</li> <li>3. Discuss antenatal screening of toxoplasmosis</li> <li>4. Discuss the effects transmission of infection on fetus in early and late pregnancy</li> </ol> <p><b>CMV</b> Discuss the treatment</p> <ol style="list-style-type: none"> <li>1. Name the infective organism</li> <li>2. Understand of prevalence</li> <li>3. Discuss effect of CMV infection on fetus and congenital anomalies caused by it discuss the laboratory investigation</li> </ol> <p><b>CHICKENPOX</b> Discuss the management plan of fetus is effected</p> <ol style="list-style-type: none"> <li>1. Name infective organism</li> <li>2. Understanding of prevalence</li> <li>3. Discuss the effects of chickenpox on mother and fetus in non-immune pregnant woman and its serious complications</li> <li>4. Discuss the testing for immunity</li> <li>5. Discuss management of non-immune woman exposed to chickenpox, and in pregnancy</li> <li>6. Define varicellazoster and its effects on fetus, its incidence</li> <li>7. Discuss effects of chickenpox on fetus before and after 20 weeks</li> <li>8. Discuss treatment if infection occurs around the time of delivery and also discuss mode of delivery at term</li> </ol> <p>Parvo virus, Listeria, Malaria</p> <ol style="list-style-type: none"> <li>1. Discuss the care of newborn if mother has infection at time of delivery Define the infective organism</li> <li>2. Understanding of incidence of parvovirus and listeria</li> <li>3. Discuss the effect of infections on mother and fetus</li> <li>4. Discuss management plan</li> </ol> <p><b>Infection acquired around the time of delivery with serious neonatal complications</b></p> <p><b>Herpes</b></p> <ol style="list-style-type: none"> <li>1. Name infective organism</li> <li>2. Understanding of incidence</li> <li>3. Tabulate the classification of neonatal herpes</li> <li>4. Discus clinical presentation</li> </ol> <p>Discuss the mode and time of delivery in primary infection and in patients with recurrent episodes</p>
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<p style="text-align: center;"><b>Normal Labour</b></p>		<p><b>Theme: Normal labor</b>  <b>Subtheme: ANATOMY AND PHYSIOLOGY OF LABOR</b></p> <ol style="list-style-type: none"> <li>1. Anatomy of female pelvis relevant to labor and delivery</li> <li>2. Diameters of fetal skull, fontanelles and sutures.</li> <li>3. The physiology of labor and how to diagnose it based on history and examination.</li> <li>3. Stages and mechanism of labor in detail.</li> <li>4. Management of labor in first and second stage based on history, general, abdominal and vaginal examination.</li> <li>5. Fetal assessment in labor and indications of continuous fetal heart rate monitoring.</li> <li>5. Understand the significance of PARTOGRAM and how to plot the progress of labor on partogram.</li> <li>7. Active management of third stage of labor.</li> </ol>
<p style="text-align: center;"><b>Abnormal Labor</b></p>		<p><b>Theme: Abnormal labor</b>  <b>Subtheme : patterns of abnormal progress in labor</b>  At the end of session students will be able to:</p> <ol style="list-style-type: none"> <li>1. Understand patterns of abnormal progress of labor.</li> <li>2. Enlist the factors contributing to poor progress in first stage of labor relative to power passage and passenger.</li> <li>3. Understand the causes and management options for delay in second stage of labor.</li> </ol> <p><b>SUBTHEME: Fetal compromise in labor</b></p> <ol style="list-style-type: none"> <li>1. Enlist the risk factors for fetal compromise in labor.</li> <li>2. Management of possible fetal compromise</li> <li>3. Significance of fetal blood sampling.</li> </ol> <p><b>Subtheme: Pain relief in labor</b></p> <ol style="list-style-type: none"> <li>1. Different methods of analgesia in labor and their side effects.</li> <li>2. Indications and contraindications of epidural analgesia.</li> </ol> <p><b>Subtheme: labor in special circumstances</b>  At the end of session students will be able to:</p> <ol style="list-style-type: none"> <li>1. Understand the risks associated with vaginal birth after Csec and relative contraindications to VBAC.</li> <li>2. Describe breech presentation and complications associated with breech delivery.</li> <li>3. Other malpresentations</li> <li>4. Describe the complications related to twins and management of twin in labor.</li> </ol> <p><b>Subtheme: Induction of labor</b>  At the end of session students will be able to :</p> <ol style="list-style-type: none"> <li>1. Enumerate the indications of induction of labor.</li> <li>2. Enlist different methods of induction of labor.</li> <li>3. Understand complications of induction of labor</li> </ol>
<p style="text-align: center;"><b>Obstetric Emergencies</b></p>		<p><b>Theme emergencies: obstetrical emergencies</b>  At the end of session students will be able to know the incidence of different obstetric emergencies and maternal mortality rate associated with each of them.</p> <p><b>Sub theme: The Collapsed/ unresponsive Patient.</b></p>

		<p>THE students will be able to:</p> <ol style="list-style-type: none"> <li>1. Enumerate the common causes of maternal collapse and death.</li> <li>2. Identify the life threatening problems ....A B C D E</li> <li>3. Resuscitation of a pregnant female patient.</li> <li>4. Understand the use of Modified Early Obstetric Warning System(MEOWS)scores in recognition of clinical deterioration of a patient.</li> </ol> <p><b>Sub theme: Sepsis.</b> The students will be able to:</p> <ol style="list-style-type: none"> <li>1. Enlist the risk factors ,warning signs and prevention of sepsis.</li> <li>2. understand the immediate measures to counter sepsis.</li> <li>3. Discuss the management of sepsis including importance of blood cultures and use of broad spectrum antibiotics in sepsis.</li> </ol> <p><b>Sub theme: Obstetric Hemorrhage.</b></p> <ol style="list-style-type: none"> <li>1. Understand that it is number one cause of maternal mortality in Pakistan.</li> <li>2. Definition of Antepartum hemorrhage ,its clinical presentation and diagnosis ..maternal , fetal and parental causes.</li> <li>3. Management of placental abruption and placenta praevia.</li> <li>4. understand the risk factors,warning signs and prevention of Postpartum hemorrhage.</li> <li>5. Management of postpartum hemorrhage.</li> </ol> <p><b>Sub theme: Eclampsia.</b></p> <ol style="list-style-type: none"> <li>1. Understand the signs and symptoms of imminent eclampsia, and eclampsia.</li> <li>2. Prevention of eclampsia.</li> <li>3. Understand the immediate and delayed management of Eclampsia.</li> </ol> <p><b>Sub theme: Amniotic fluid embolism.</b></p> <ol style="list-style-type: none"> <li>1. enlist the risk factors associated with amniotic fluid embolism.</li> <li>2. Enumerate the warning signs.</li> <li>3. Understand the management of amniotic fluid embolism.</li> <li>4.</li> </ol> <p><b>Sub theme: Umbilical cord prolapse.</b></p> <ol style="list-style-type: none"> <li>1. understand the predisposing factors leading to cord prolapse.</li> <li>2. understand the warning signs and management of cord prolapse.</li> </ol> <p><b>Sub theme: Shoulder dystocia.</b></p> <ol style="list-style-type: none"> <li>1. Understand the definition, risk factors and complications of shoulder dystocia.</li> <li>2. Describe stepwise emergency management of shoulder dystocia.</li> </ol>
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		<p><b>Sub theme: Thrombosis and thromboembolism.</b></p> <ol style="list-style-type: none"> <li>1. Understand the incidence of thrombosis in our race and region.</li> <li>2. Enumerate the causes and risk factors.</li> <li>3. Discuss the preventive measures.</li> <li>4. Treatment and Complications associated with thrombosis and DVT.</li> </ol> <p><b>Sub theme: Uterine inversion.</b></p> <ol style="list-style-type: none"> <li>1. Understand clearly risk factors, and warning signs as well as prevention of uterine inversion.</li> <li>2. Clearly understand the immediate management of uterine inversion.</li> </ol> <p><b>Sub theme: Uterine rupture.</b></p> <ol style="list-style-type: none"> <li>1. Clearly understand the risk factors and preventive measures of uterine Rupture.</li> <li>2. know the warning signs of uterine rupture.</li> <li>3. highlight the management of uterine rupture.</li> </ol> <p><b>Sub theme: Impacted head at C section.</b></p> <ol style="list-style-type: none"> <li>1. Discuss the causes of impacted head and emergency management of Impacted head at Csec.</li> </ol>
<b>Operative delivery</b>		<p><b>Theme: operative delivery and its complications.</b></p> <p><b>Sub theme: Perineal repair</b></p> <ol style="list-style-type: none"> <li>1. Understand the anatomy of perineum and anal sphincter.</li> <li>2. understand and classify the degree of perineal tear.</li> <li>3. Understand the surgical technique to repair the tear.</li> <li>4. Understand the post-operative care of the Repair.</li> </ol> <p><b>Sub theme: Episiotomy</b></p> <ol style="list-style-type: none"> <li>1. Importance of Episiotomy.</li> <li>2. The use and type of episiotomy.</li> <li>3. Surgical technique to repair episiotomy.</li> </ol> <p><b>Sub theme: Operative vaginal delivery</b></p> <ol style="list-style-type: none"> <li>1. Fetal Indications of operative vaginal delivery</li> <li>2. Maternal indications of operative vaginal delivery</li> <li>3. Classification of operative vaginal delivery.</li> <li>4. Should understand the pre-requisite before performing Operative delivery.</li> <li>5. The choice of the instrument used and the procedure details.</li> <li>6. Safety and Contradictions to the procedure.</li> <li>7. The complications and their management..</li> </ol> <p><b>Sub theme: Caesarian Section.</b></p> <ol style="list-style-type: none"> <li>1. Anatomy of the C-section</li> <li>2. Understanding the need of emergency and elective C-section</li> <li>3. Classification and Indications of C-Section.</li> <li>4. Detailed steps of the procedure</li> <li>5. Understanding of intra-operative and post-operative complications.</li> </ol> <p>Post operative care of the patient.</p>
<b>Puerperium</b>		<p><b>Theme: Puerperium and related disorders.</b></p> <p><b>Sub theme: physiological changes</b></p>

		<ol style="list-style-type: none"> <li>1. Understanding the normal physiological events in Puerperium.</li> <li>2. Learn to recognize the milestones towards healing during Puerperium.</li> <li>3. Understand the factors delaying the uterine involution and its treatment.</li> <li>4. Recovery after normal birth and after Csec.</li> <li>5. understand the schedule of visits after Puerperium and level of care after the child birth.</li> </ol> <p><b>Sub theme: Puerperal disorders</b></p> <p>1. clearly understand the signs and symptoms of potentially life threatening postnatal conditions like PPH, eclampsia, infection and thromboembolism.</p> <p>2. understand the clinical presentation of Puerperal sepsis, common risk factors associated with it and its management.</p> <p><b>Subtheme: Psychiatric disorders</b></p> <ol style="list-style-type: none"> <li>1. the pathophysiology of postpartum affective disorders.</li> <li>2. normal psychological changes during pregnancy.</li> <li>3. symptoms of postpartum depressive illness, anxiety disorders and puerperal psychosis.</li> <li>4. describe the management of these disorders.</li> </ol> <p><b>Sub theme: Breast Feeding.</b></p> <p>At the end of session students will be able to:</p> <ol style="list-style-type: none"> <li>6. Understand the physiology of Lactation.</li> <li>7. The advantages of breast feeding, Milk chemistry,</li> <li>8. Techniques of improving breast feeding.</li> <li>9. Understand breast disorders during lactation.</li> </ol> <p><b>Sub theme: Contraception</b></p> <ol style="list-style-type: none"> <li>10. Must have detailed and comprehensive understanding of effective contraception.</li> </ol> <p><b>Sub theme: Perinatal death</b></p> <p>Should have understanding in terms of causes of perinatal morbidity and perinatal death.</p>
Neonatology		<p><b>Theme: The new born baby and its common problems.</b></p> <p><b>Sub theme: The Neonate and immediate care.</b></p> <p>At the end of session students will be able to learn:</p> <ol style="list-style-type: none"> <li>1. The new born physiology and transition from fetus to neonate.</li> <li>2. The principles of neonatal resuscitation.</li> <li>3. The early nursery care problems associated with neonate and management of common problems of neonates at term.</li> <li>4. Counselling of the parents.</li> <li>5. neonatal screening components including physical examination, hearing check and blood tests.</li> <li>6. national schedule of immunization</li> </ol> <p><b>subtheme: Pre term babies and Congenital abnormalities</b></p> <p>∴</p> <ol style="list-style-type: none"> <li>1. A comprehensive account on common congenital problems</li> </ol>

				<p>and their immediate care.</p> <ol style="list-style-type: none"><li>2. The concept of care of preterm and premature babies.</li><li>3. Knowledge of common fetal congenital abnormalities and their management.</li><li>4. Principles of care in extremely premature infants.</li></ol>
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# UHS SYLLABUS

# OBSTETRICS

The course outline is as follows :

1. Introduction.
2. Obstetric history taking and examination.
3. Conception, implantation and development of placenta, fetal circulation, abnormalities of placenta.
4. Foetal skull and bony pelvis.
5. Diagnosis of pregnancy.
6. Physiological changes associated with pregnancy.
7. Ante-natal care.
8. Early pregnancy loss and its management (Abortions)
9. Physiology of labour.
10. Mechanism of labour.
11. Management of labour.
12. Complications of 3<sup>rd</sup> stage of labour.
13. Abnormal labour e.g. Prolonged labour/obstructed labour.
14. Pre-term labour.
15. Induction of labour.
16. Pre-maturity.
17. Post-maturity.
18. Conduction of normal delivery.
19. Operation delivery.
20. Forceps delivery.
21. Vacuum delivery.
22. Caesarean section.
23. Ante-partum haemorrhage.
24. Hydramnios.
25. Hyperemesis gravidarum.
26. Medical Disorder associated with pregnancy e.g.
  - Pregnancy with anaemia
  - Pregnancy with heart disease
  - Pregnancy with diabetes

- Pregnancy with jaundice/hepatitis
  - Renal problems during pregnancy
  - Pyrexia in pregnancy
27. Hypertensive disorders of pregnancy e.g.
    - PET
    - Eclampsia
    - Essential hypertension
  28. Obstetric shock.
  29. Intra uterine growth retardation and its management.
  30. Fetal distress and its management.
  31. Fetal Monitoring.
  32. Fetal presentations.
  33. Breech presentation.
  34. Occipito posterior position.
  35. Brow presentation.
  36. Face presentation.
  37. Cord prolapse/compound presentation.
  38. Transverse lie/unstable lie.
  39. Multiple pregnancy.
  40. Puerperium (normal and abnormal).
  41. Examination of the new-born baby.
  42. Resuscitation of new-born.
  43. Minor problems of the new-born.
  44. Breast feeding and its importance.
  45. Obstetric injuries/ruptured uterus.
  46. Haematological disorder of pregnancy e.g.
    - Rh incompatibility - Thalassemia major/minor
  47. Role of Ultrasound in obstetric.
  48. Foetal congenital abnormalities.
  49. Vital statistics.

### **Practical:**

Log Book of 20 assisted deliveries.

## **(D) GYNAECOLOGY**

The course outline is as follows :

1. Introduction.
2. Anatomy of female
  - i. Genital organs
  - ii. Development of female genital organs
3. Puberty and adolescence.
4. Ovulation and its clinical importance.
5. Normal menstruation.
6. Menstrual abnormalities.
7. Gynaecological history taking and examination
8. Minor gynaecological operative procedures.
9. Amenorrhoea
10. Infertility.
11. Contraception.
12. Ectopic pregnancy.
13. Trophoblastic tumours.
14. Vulval lesions 15. Tumours of vagina.
16. Tumours of cervix.
17. Tumours of uterus.
18. Tumours of ovaries.
19. Tumours of fallopian tubes.
20. Menopause, Hormone replacement therapy.
21. Genital prolapse.
22. Pelvic floor injuries.

23. Urogynaecology.
24. Problems of marriage and sex.
25. Vaginal discharges.
26. Infections of female genital tract
  - i. Infections of upper genital tract
  - ii. Infections of lower genital tract
27. Pre-operative preparations.
28. Post-operative complications and its management.
29. Role of USG in gynaecology

**Practical:**

Log Book of 20 patients of Gynaecology.

## SOURCES OF KNOWLEDGE

### RECOMMENDED BOOKS FOR OBSTETRICS:

1. **Obstetrics by Ten Teachers** by Stuart Campbell and Christoph Lees. Latest Ed 2000
2. **Essentials of Obstetrics and Gynecology** by Neville F. Hacker, J. George Moore, and Joseph C. Gambone. Latest ed.
3. **Notes on Obstetrics & Gynecology.** Stirrat, Mills, Draycott. Latest Ed. 2003.
4. **Text book of Obstetrics and Gynecology** by Rashid Lateef
5. **Obstetrics and Gynecology** by Arshad Chauhan
6. **Online Journals and Reading Materials** through HEC Digital Library Facility.

### RECOMMENDED BOOKS FOR GYNAECOLOGY

1. **Gynaecology by Ten Teachers** by Stanley G. Clayton and Ash Monga 2006.
2. **Essentials of Obstetrics and Gynecology** by Neville F. Hacker, J. George Moore, and Joseph C. Gambone. Latest ed. 2004
3. **Notes on Obstetrics & Gynecology** by Stirrat, Mills, Draycott. Latest Ed. 2003.
4. **Text book of Obstetrics and Gynecology** by Rashid Lateef
5. **Obstetrics and Gynecology** by Arshad Chauhan
6. **Online Journals and Reading Materials** through HEC Digital Library Facility.

# POLICY & GUIDELINES OF LEARNING STRATEGIES & STUDY SKILLS FOR MEDICAL STUDENTS

*This document is a Summary written for the purpose of the study guides. For details refer to the document "A HANDBOOK OF POLICY & GUIDELINES OF LEARNING STRATEGIES & STUDY SKILLS FOR MEDICAL STUDENTS" available for the students at website, Bookshop and the Department of Medical Education.*

## **STEPS TO STRATEGIC LEARNING:**

### **1. Set realistic learning goals.**

These goals serve as the driving force to generate and maintain the motivation, thoughts, and behaviour necessary to succeed. Set and use long-term occupational goals (you want to be a doctor) and short-term learning goals (you want to understand this new material).

### **2. Types of knowledge needed to be a strategic learner:**

- Know yourself as a learner (learning preferences, talents, best times of day to study, ability to match study skills to learning task) this knowledge helps you set realistic yet challenging learning goals.
- Knowing the nature and requirements of different types of educational tasks.
- Knowing a variety of study skills and learning strategies and how to use them.
- Knowing the contexts in which what is being learned can be used now or in the future.

### **3. Use a variety of learning strategies:**

- Manage your study environment,
- Coordinate study and learning activities,
- Keep your motivation for learning clear,
- Generate positive behaviours toward learning,
- Make new information meaningful to you,
- Organize and integrate new information with existing knowledge, or Re-organize existing knowledge to fit the new understanding and information.
- Place new information in a present or future context.

## ACADEMIC HOURS BREAKDOWN

Obstetrics/Gynaecology					
Week	Lectures (1hr)	Tutorial (1hr)	CBD/OPD/Ward	Skill Class	Assessment
1	1		5	4	
2	1		5	5	
3	5		5	4	
4	4	1	5	4	Writ Test
5	4		6	4	
6	4		5	5	Ward Test
7	4		5	4	
8	4	1	5	4	Writ Test
9	4		5	4	
10	3	1	5	4	Writ Test
11	4		5	4	Ward Test
12	3		5	4	Writ Test
13	2			3	OSPE (2)
14	1	1	1		OSPE (2); RT
15		1			RT
16	6		4		RT (2); ESE (2)
17	3		3	2	
18	4		5	4	Ward Test
19	4		5	4	
20	4	1	5	4	Writ Test
21	4		5	4	
22	4	1	5	4	Writ Test
23	1		2	2	Ward Test
24	3	1	3	3	Retest
25	4		5	4	
26	4	1	5	4	GT
27	4		4	5	Ward Test
28	3		4		
29	4		5		RT (2)
30	2		5		RT (2)

31	3		5		
32					
33					
34					MSE (2); GT
35					Writ Test
36					RT (5)
37					GRT; RT (5)
38					GRT; RT (5)
39					GRT; RT (5)
40					GRT; RT (5)
41					GRT
42					SENDUP (2)
43					
Total Sessions	101	9	132	93	
Total Hours	101	13.5	264	139.5	
<b>Hours:</b>	Lect. & Tut.	114.5	Ward/Skill	403.5	
Gross Total	518				

# ASSESSMENT HOURS

Obstetrics & Gynaecology				
Test	Total Tests	Total Hours		
GT	11	22		
RT	40	60		
ESE/MSE/LSE	3	9		
Ward Test	5	17.5		
<b>Grand Total</b>	59	108.5	<b>167.5</b>	

- **100 HOURS ARE GIVEN PER YEAR FOR SELF DIRECTED STUDY.**
- **30 HOURS ARE GIVEN PER YEAR ACCORDING TO ALPHA PROGRAM.**

## **INTERNAL ASSESMENT POLICY**

The assessment policy of Avicenna Medical College clearly reflect that the assessment must covers knowledge, skills and attitude to be acquired by a medical student at the end of the each Professional Year and the entire MBBS Course.

- Theoretical knowledge is assessed by means of MCQs, SEQs, Structured Viva, CBD Tutorials and Pre-Test Tutorials.
- Professional and Clinical Skills are assessed through OSPE, OSCE, Practical Exams and Long and Short Cases.
- Attitudes are assessed through OSPE, OSCE, Practical Exams, Long Cases, Short Cases and Vivas

### **Assessment Procedures**

Performance of students will be assessed as follows:

#### **a. Programmatic Assessment During Academic Year: Grand Tests and Revision Test**

It will incorporate both formative and summative assessment for all academic years.

##### **1) Formative Assessments:**

These are Conducted throughout the academic year. These are low stake examinations with feedback to improve student learning, leading to better performance in summative assessments and the UHS Professional Examinations. At Avicenna Medical College the formative assessment is in the form of Grand Tests, Revision Tests, Research, Tutorials, Assignments, Long Cases and Short Cases presentations etc.

##### **2) Summative Assessments:**

These are conducted at the end of each term, consisting of Session Examinations conducted on the pattern of UHS annual Prof Exams. These consist of One best type of MCQs and SEQs which has two to three parts require written short essay responses from the students. The MCQs, the SEQs are mostly clinical and scenario based and designed to test the concepts.

#### **b. End of Term Assessment**

This will be summative carried out at the end of each academic year.

#### **Assessment Tools:**

Various tools selected are as follows according to UHS guidelines.

##### **a. Written Assessment**

###### **1) Multiple Choice Question (MCQ)**

MCQs are extensively used for in both formative and summative assessment owing to their ability to offer a broad range of examination items that incorporate several subject areas. They are the one best type of MCQs and designed to test factual knowledge, understanding and clinical reasoning.

A multiple choice item consists of a problem, known as the stem, and a list of suggested solutions, known as the choices. The choices consist of one correct or best choice, which is the answer, and incorrect or alternatives, known as distractors. Each MCQ carries one mark. The number of MCQs vary in the Grand Tests, Revision Test and the Session Exams as needed.

## 2) Short Essay Questions (SEQs)

Written assessment formats are the most widely used assessment methods in medical education. Learning outcomes which are mainly based on cognitive domains (knowledge) can be assessed by them.

The SEQs have a statement or clinical scenario followed by two to three questions, which require application of concepts and are thought provoking.

## b. Assignments and Presentations

Every month in various departments, topics of clinical significance are given to the students for assignment and presentations for small group discussions (SGD) sessions. These will be a part of formative assessment. Clinico- Basic and Clinico-Pathological Conferences (CPC) are held for preclinical and clinical years, respectively.

## c. Practical/Clinical Assessment

### 1) Objective Structured Practical Exam (OSPE)

A formative OSPE will be held during terms and summative at the end of year. It will consist of laboratory-based and practical questions related to the learning objectives covered in the course. The students will be given feedback after formative assessment.

### 2) Objective Structured Clinical Exam (OSCE):

A formative OSCE will be held during the term and summative at the end of year. It will consist of clinical and practical questions related to the learning objectives covered in the course. The students will be given feedback after formative assessment.

### 3) Long Case

At the end of fourth and final year each subject will be assessed by a long case. Daily encountered problems will be the case scenarios for which students will be trained during formative assessment in clinics.

### 4) Structured Viva

At the end of examination an integrated viva will be taken in which relevant specialists will sit and ask questions. There will be guidelines for examiners to follow.

### 5) Log Books

In case of log books, required entries will be countersigned by observer. It will be criterion referenced whereas the students will have to fulfill the following criteria: for example assignments, case presentations in wards, departmental log books.

### 6) Observation

#### Internal Assessment

The progress report from teachers will have separate column about behavior and attitude of students in each term in addition to academic record with minimum pass of 50%.

### **Internal Assessment**

The progress report from teachers will have separate column about behavior and attitude of students in each term in addition to academic record with minimum pass of 50%.

The question papers are prepared in secrecy and approved by the Principal. The department then gets sufficient copies made in secrecy and submits the same to the directorate of Medical Education 24 hours before the scheduled test / exam. On the day of the examinations these papers along with the answer sheets are collected from the DME and taken straight to the examination hall where they are opened and are distributed to the students for attempting the question.

After the papers have been solved, the MCQs are marked immediately and the SEQs marked and submitted within two days (except for revision tests where the results have to be submitted within 24 hours) from here, the assessment system as envisaged in the earlier paragraphs is applied.

Every test / examination is supported by keys both for MCQs and SEQs. Adequate time is air marked for key discussion in which the member of the faculty explains to the class how in fact they should have attempted the MCQs and SEQs. This gives an opportunity to the class to make the assessment of how they have attempted the paper and what mistakes they have made and how not to repeat them in future.

Avicenna Medical College endeavors to implement the assessment system of the UHS subject based curriculum as it is in vogue at present by implementing the curriculum with the basic ingredients of assessment implementation as follows:

- a. Grand Test
- b. Revision Test
- c. Session Examinations
- d. OSPE
- e. OSCE
- f. Viva
- g. Log books / Copies
- h. Assignments
- i. Research work
- j. Tutorials
- k. Long case
- l. Short case

### Practical Assessments

The regulations for the preparation and conduct of practical assessments vary between subject areas. Where regulations have not been specified they have to be put up to the Academic Committee.

### Clinical Assessment

The clinical assessment is carried out in the following forms:

- a. Scenario based Clinical Oriented MCQs
- b. Scenario/Clinical based SEQs/SAQs
- c. On-Patient training viva
- d. Ward tests
- e. OSPE
- f. OSCE

### Assessment Framework

The framework for assessment involves the University guideline of:

- a. Pass marks 50%
- b. Equal marks for theory and for practical
- c. Internal Assessment 10% to be awarded by the college
- d. Allocation of marks as under

### Allocation of Marks

Sr.	Subject	Marks Theory	Marks Practical / OSPE / OSCE	Remarks
1	Anatomy	100	100	Internal assessment 10%
2	Physiology	100	100	Internal assessment 10%
3	Biochemistry	100	100	Internal assessment 10%
4	Islamiyat & Pak Studies	100	-	
5	Pathology	150	150	Internal assessment 10%
6	Pharmacology	150	150	Internal assessment 10%
7	Forensic Medicine	100	100	Internal assessment 10%
8	Community Medicine	150	150	Internal assessment 10%
9	Special Pathology	150	150	Internal assessment 10%
10	ENT	100	100	Internal assessment 10%
11	Ophthalmology	100	100	Internal assessment 10%
12	Medicine	200	300	Internal assessment 10%
13	Surgery	250	250	Internal assessment 10%
14	Gynae	150	150	Internal assessment 10%
15	Paeds	100	100	Internal assessment 10%

16	Behavioral Sciences	100	100	Internal assessment 10%
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**Grand Test:** The syllabus of each subject for which the table of specification has been formulated in detail is divided into various topics and grand tests are held after the topic has been covered in theory, practical and in tutorial classes. The grand test is the first exposure of the students towards assessment of his/her knowledge and skills and is held once only for each topic covered as the syllabus goes along. The grand test has the following ingredients:

- |                |           |
|----------------|-----------|
| a. MCQs        | 45% marks |
| b. SEQs        | 45% marks |
| c. Viva / Copy | 10% marks |

**Note:** The DME maintains a record of all grand tests along with the keys to the MCQs and SEQs and the results. These results are used for the calculation and assessment of each student in terms of their acquisition of knowledge and skills.

**Revision Test:** The revision tests are designed to precede every session exam and they are aimed at breaking up the syllabus and covering the same in small bits so that the students can have exhaustive study of the portion of the syllabus to be tested upon. The schedule of revision test is decided jointly by the Assessment Committee and the students' class representatives so that the student input is brought into consideration. In this case the students' representatives include the weak students, the average ones and good students. And this mix ensures that adequate time is provided to weak students to do exhaustive studies.

Depending upon the syllabus covered. 8 to 10 revision tests are held in preparation for the session exams. The contents of the revision tests are:

- |              |          |
|--------------|----------|
| a. MCQs (30) | 30 marks |
| b. SEQs (6)  | 30 marks |

**Note:** The DME maintains a record of all grand tests along with the keys to the MCQs and SEQs and the results. These results are used for the calculation and assessment of each student in terms of their acquisition of knowledge and skills. Four sets of revision tests are held annually. One each before the early session, mid-session, late session and/or send-up examination.

**Session Examination:** As per the annual planner and schedule, three session exams are held every year and these are generally held in March, June and August each year. The late session examination is held in August and as an extra opportunity for the students to qualify the send-ups for the border line cases is only held one month before the prof exam. The following session exams are held:

a. Early Session Examination	50% of syllabus
b. Mid-Session Examination	85% syllabus
c. Late Session Examination	100% syllabus
d. Send-up Examination	For the very weak

The details of the session examination are as under

- a. Theory - 50% marks divided as under
  - 1) MCQs 45% of theory marks
  - 2) SEQs 45% of theory marks
  - 3) Log book / copy 10% of theory marks
  
- b. OSPE/OSCE/Viva - 50% marks

**Note:** The DME maintains a record of all session exams along with the keys to the MCQs and SEQs and the results. These results are used for the calculation and assessment of each student in terms of their acquisition of knowledge and skills. Four sessions examinations are held annually.

**OSPE (Objective Structured Practical Examination):** This depicts the scenario based clinical setting and various stations are arranged. The student has to go from one station to the other to answer the question or to display his practical skill. This is aimed at assessing both the knowledge and skills of the student. The format and the standard of the scenario based problems/questions are in line with the standards prescribed by the University of Health Sciences.

**Note:** The DME maintains a record of all OSPEs along with the keys to the OSPE and the results. These results are used for the calculation and assessment of each student in terms of their acquisition of knowledge and skills. Sample OSPE paper is attached as **Annexure-B**. Since OSPE is a part of session exams therefore four sessions of OSPE are held each year.

**OSCE (Objective Structured Clinical Examination):** This depicts the scenario based clinical setting and various stations are arranged. The student has to go from one station to the other to answer the question or to display his clinical skills. This is aimed at assessing both the knowledge and skills of the student. The format and the standard of the scenario based problems/questions are in line with the standards prescribed by the University of Health Sciences.

**Note:** The DME maintains a record of all OSCEs along with the keys to the OSCE and the results. These results are used for the calculation and assessment of each student in terms of

their acquisition of knowledge and skills. Sample OSCE paper is attached as **Annexure-C**. Since OSCE is a part of session exams therefore four sessions of OSCE are held each year.

**Viva:** This is an oral examination to which the student is subject to be examined by two members of the Faculty one acting as the internal examiner and the other acting as the external examiner. The student is grilled in these oral questioning sessions. The student is asked on various clinical aspects to ascertain his knowledge.

**Note:** The DME maintains a record of all Viva and the results. These results are used for the calculation and assessment of each student in terms of their acquisition of knowledge and skills. Since Viva is a part of session exams therefore four sessions are held each year.

**Copies and Log Books:** Whereas copies are maintained in 1<sup>st</sup> 2<sup>nd</sup> and 3<sup>rd</sup> year of the basic sciences, the log books are maintained for the 4<sup>th</sup> year and the final year for the clinical subjects. The completion of the copies and the log books is mandatory and these have to be produced before the internal and the external examiner on all session examinations and annual Prof exam. Copies and log books carry 10 marks and are a valid record for the purpose of assessment besides being a record of the students' clinical exposure.

**Assignments:** These are normally generated by the Community Medicine and the Department of Medicine in which the departments give assignments for the students to be completed in their own time. Assignments are included as a part of practical assessment and left to the discretion of the Head of Department.

**Research work:** The Department of Community Medicine as a part of its Curriculum train the students in carrying out research. These research projects are covered in Standard 12 - Research & Scholarship and research records are available in the Department of Community Medicine. Research works are included as a part of practical assessment and left to the discretion of the Head of Department.

**Tutorials:** These are held before every grand test to clear the concepts of the students on the subject. The performance of the students in the tutorials is included in the viva assessment.

**Long Case and Short Case:** This system of OSPE and OSCE is to ascertain the clinical acumen of the student. These are held with the session examinations and form of a part of the practical/clinical assessment.

#### **Notification of Results**

The Assessment Committee will display result on notice board as well as the results are sent through SMS to the father of the student.

Results as hard copy will also be sent to parents after each term.

### Conducting Examinations and Assessments

Conducting Examinations and Assessments According to University of Health Sciences Guidelines. In all examinations and assessments, the conditions underpinning the examination or assessment shall be displayed on concerned department notice boards to students prior to the examination or assessment taking place.

*Note: Any requests for special assistance example reader/writer are to be made prior to the examination or assessment.*

- g. Introducing students to the system of simulated and standardized patients

### Response to Parents:

Parents are kept informed about the result of each student. The results are dispatched as follows:

- |                          |   |
|--------------------------|---|
| a. Grand Test:           | by SMS  |
| b. Revision Test:        | by SMS  |
| c. Session Examinations: | as a report containing the results of all grand tests of all subjects for that class. Three session exam reports are sent. Reports of each session for each class are attached as <b>Annexure-I</b> . |
| d. OSPE                  | Included in the session result  |
| e. OSCE                  | Included in the session result  |
| f. Viva                  | Included in the session result  |
| g. Log books / Copies    | Included in the session result  |
| h. Assignments           | Included in the session result  |
| i. Research work         | Included in the session result  |
| j. Tutorials             | Included in the session result  |
| k. Long case             | Included in the ward test / clinical test   |
| l. Short case            | Included in the ward test / clinical test   |

