

GENERAL MEDICINE (CODE: IM)

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| GENERAL MEDICINE | | | | | | | | | |
| Topic: Heart Failure | | Number of competencies: (30) | | | Number of procedures that require certification : (01) | | | | |
| IM1.1 | Describe and discuss the epidemiology, pathogenesis clinical evolution and course of common causes of heart disease including: rheumatic/ valvular, ischemic, hypertrophic inflammatory | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM1.2 | Describe and discuss the genetic basis of some forms of heart failure | K | KH | N | Lecture, Small group discussion | Written | | Pathology, Physiology | |
| IM1.3 | Describe and discuss the aetiology microbiology pathogenies and clinical evolution of rheumatic fever, criteria, degree of rheumatic activity and rheumatic valvular heart disease and its complications including infective endocarditis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology, Microbiology | |
| IM1.4 | Stage heart failure | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM1.5 | Describe ,discuss and differentiate the processes involved in R Vs L heart failure, systolic vs diastolic failure | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM1.6 | Describe and discuss the compensatory mechanisms involved in heart failure including cardiac remodelling and neurohormonal adaptations | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM1.7 | Enumerate, describe and discuss the factors that exacerbate heart failure including ischemia, arrhythmias, anemia, thyrotoxicosis, dietary factors drugs etc. | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM1.8 | Describe and discuss the pathogenesis and development of common arrhythmias involved in heart failure particularly atrial fibrillation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM1.9 | Describe and discuss the clinical presentation and features, diagnosis, recognition and management of acute rheumatic fever | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Microbiology | |

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| IM1.10 | Elicit document and present an appropriate history that will establish the diagnosis, cause and severity of heart failure including: presenting complaints, precipitating and exacerbating factors, risk factors exercise tolerance, changes in sleep patterns, features suggestive of infective endocarditis | S | SH | Y | Bedside clinic | Skill assessment | | | |
| IM1.11 | Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and estimate its severity including: measurement of pulse, blood pressure and respiratory rate, jugular venous forms and pulses, peripheral pulses, conjunctiva and fundus, lung, cardiac examination including palpation and auscultation with identification of heart sounds and murmurs, abdominal distension and splenic palpation | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM1.12 | Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM1.13 | Measure the blood pressure accurately, recognise and discuss alterations in blood pressure in valvular heart disease and other causes of heart failure and cardiac tamponade | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM1.14 | Demonstrate and measure jugular venous distension | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM1.15 | Identify and describe the timing, pitch quality conduction and significance of precordial murmurs and their variations | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM1.16 | Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis | K | KH | Y | Bedside clinic, Small group discussion | Skill assessment | | | |
| IM1.17 | Order and interpret diagnostic testing based on the clinical diagnosis including 12 lead ECG, Chest radiograph, blood cultures | K | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM1.18 | Perform and interpret a 12 lead ECG | S | P | Y | Bedside clinic, DOAP session | Skill assessment | 3 | | |
| IM1.19 | Enumerate the indications for and describe the findings of heart failure with the following conditions including: 2D echocardiography, brain natriuretic peptide, exercise testing, nuclear medicine testing and coronary angiogram | S | KH | N | Lecture, Small group discussion, Bedside clinic | Skill assessment | | Radiodiagnosis | |

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| IM1.20 | Determine the severity of valvular heart disease based on the clinical and laboratory and imaging features and determine the level of intervention required including surgery | C | SH | Y | Small group discussion, Lecture, Bedside clinic | Written/ Skill assessment | | | |
| IM1.21 | Describe and discuss and identify the clinical features of acute and subacute endocarditis, echocardiographic findings, blood culture and sensitivity and therapy | K | KH/SH | Y | Bedside clinic, Small group discussion, Lecture | Skill assessment | | | |
| IM1.22 | Assist and demonstrate the proper technique in collecting specimen for blood culture | S | SH | Y | DOAP session | Skill assessment | | Microbiology | |
| IM1.23 | Describe, prescribe and communicate non pharmacologic management of heart failure including sodium restriction, physical activity and limitations | S/C | SH | Y | Lecture, Small group discussion | Skill assessment | | | |
| IM1.24 | Describe and discuss the pharmacology of drugs including indications, contraindications in the management of heart failure including diuretics, ACE inhibitors, Beta blockers, aldosterone antagonists and cardiac glycosides | K | KH | Y | Lecture, Small group discussion | Viva voce/written | | Pharmacology | |
| IM1.25 | Enumerate the indications for valvuloplasty, valvotomy, coronary revascularization and cardiac transplantation | K | KH | Y | Lecture, Small group discussion, Bedside clinic | Viva voce/written | | | |
| IM1.26 | Develop document and present a management plan for patients with heart failure based on type of failure, underlying aetiology | S | SH | Y | Bedside clinic, Skill assessment, Small group discussion | Bedside clinic/ Skill assessment/written | | | |
| IM1.27 | Describe and discuss the role of penicillin prophylaxis in the prevention of rheumatic heart disease | K | KH | Y | Bedside clinic, Small group discussion | Written | | Microbiology, Pharmacology | |
| IM1.28 | Enumerate the causes of adult presentations of congenital heart disease and describe the distinguishing features between cyanotic and acyanotic heart disease | K | KH | Y | Bedside clinic, Small group discussion | Bedside clinic/ Skill assessment/written | | | |
| IM1.29 | Elicit document and present an appropriate history, demonstrate correctly general examination, relevant clinical findings and formulate document and present a management plan for an adult patient presenting with a common form of congenital heart disease | K | KH | Y | Bedside clinic, Small group discussion | Skill assessment/ written | | | |

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| IM1.30 | Administer an intramuscular injection with an appropriate explanation to the patient | S | SH | Y | Bedside clinic, Skill assessment | Log book documentation of completion | | Pharmacology | |
| Topic: Acute Myocardial Infarction/ IHD | | | | | | | | | |
| Number of competencies: (24) | | | | | Number of procedures that require certification : (02) | | | | |
| IM2.1 | Discuss and describe the epidemiology, antecedents and risk factors for atherosclerosis and ischemic heart disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology, Community Medicine | |
| IM2.2 | Discuss the aetiology of risk factors both modifiable and non modifiable of atherosclerosis and IHD | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM2.3 | Discuss and describe the lipid cycle and the role of dyslipidemia in the pathogenesis of atherosclerosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Biochemistry | |
| IM2.4 | Discuss and describe the pathogenesis natural history, evolution and complications of atherosclerosis and IHD | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM2.5 | Define the various acute coronary syndromes and describe their evolution, natural history and outcomes | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM2.6 | Elicit document and present an appropriate history that includes onset evolution, presentation risk factors, family history, comorbid conditions, complications, medication, history of atherosclerosis, IHD and coronary syndromes | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM2.7 | Perform, demonstrate and document a physical examination including a vascular and cardiac examination that is appropriate for the clinical presentation | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM2.8 | Generate document and present a differential diagnosis based on the clinical presentation and prioritise based on "cannot miss", most likely diagnosis and severity | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM2.9 | Distinguish and differentiate between stable and unstable angina and AMI based on the clinical presentation | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM2.10 | Order, perform and interpret an ECG | S | P | Y | Bedside clinic, DOAP session | Skill assessment | 3 | | |

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| IM2.11 | Order and interpret a Chest X-ray and markers of acute myocardial infarction | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM2.12 | Choose and interpret a lipid profile and identify the desirable lipid profile in the clinical context | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Biochemistry | |
| IM2.13 | Discuss and enumerate the indications for and findings on echocardiogram, stress testing and coronary angiogram | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM2.14 | Discuss and describe the indications for admission to a coronary care unit and supportive therapy for a patient with acute coronary syndrome | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM2.15 | Discuss and describe the medications used in patients with an acute coronary syndrome based on the clinical presentation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM2.16 | Discuss and describe the indications for acute thrombolysis, PTCA and CABG | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM2.17 | Discuss and describe the indications and methods of cardiac rehabilitation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM2.18 | Discuss and describe the indications, formulations, doses, side effects and monitoring for drugs used in the management of dyslipidemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology, Biochemistry | |
| IM2.19 | Discuss and describe the pathogenesis, recognition and management of complications of acute coronary syndromes including arrhythmias, shock, LV dysfunction, papillary muscle rupture and pericarditis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM2.20 | Discuss and describe the assessment and relief of pain in acute coronary syndromes | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM2.21 | Observe and participate in a controlled environment an ACLS program | S | KH | N | DOAP session | NA | | | |
| IM2.22 | Perform and demonstrate in a mannequin BLS | S | P | Y | DOAP session | Skill assessment | 1 | | |

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| IM2.23 | Describe and discuss the indications for nitrates, anti platelet agents, gpIIb IIIa inhibitors, beta blockers, ACE inhibitors etc in the management of coronary syndromes | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM2.24 | Counsel and communicate to patients with empathy lifestyle changes in atherosclerosis / post coronary syndromes | C/A | SH | Y | DOAP session | Skill assessment | | AETCOM | |
| Topic: Pneumonia | | Number of competencies: (19) | | | Number of procedures that require certification: (NIL) | | | | |
| IM3.1 | Define, discuss, describe and distinguish community acquired pneumonia, nosocomial pneumonia and aspiration pneumonia | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Human Anatomy, Pathology, Microbiology | |
| IM3.2 | Discuss and describe the aetiologies of various kinds of pneumonia and their microbiology depending on the setting and immune status of the host | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Microbiology | |
| IM3.3 | Discuss and describe the pathogenesis, presentation, natural history and complications of pneumonia | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology, Microbiology | |
| IM3.4 | Elicit document and present an appropriate history including the evolution, risk factors including immune status and occupational risk | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM3.5 | Perform, document and demonstrate a physical examination including general examination and appropriate examination of the lungs that establishes the diagnosis, complications and severity of disease | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM3.6 | Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM3.7 | Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum gram stain, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing and ABG | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Radiodiagnosis, Microbiology | |

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| IM3.8 | Demonstrate in a mannequin and interpret results of an arterial blood gas examination | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM3.9 | Demonstrate in a mannequin and interpret results of a pleural fluid aspiration | S | SH | Y | DOAP session | Skill assessment | | | |
| IM3.10 | Demonstrate the correct technique in a mannequin and interpret results of a blood culture | S | SH | Y | DOAP session | Skill assessment | | Microbiology | |
| IM3.11 | Describe and enumerate the indications for further testing including HRCT, Viral cultures, PCR and specialised testing | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Radiodiagnosis, Microbiology | |
| IM3.12 | Select, describe and prescribe based on the most likely aetiology, an appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum | S | SH | Y | Bed side clinic, DOAP session | Skill Assessment/ Written/ Viva voce | | Pharmacology, Microbiology | |
| IM3.13 | Select, describe and prescribe based on culture and sensitivity appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum. | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Written/ Viva voce | | Pharmacology, Microbiology | |
| IM3.14 | Perform and interpret a sputum gram stain and AFB | S | P | Y | DOAP session | Skill assessment | | Microbiology | |
| IM3.15 | Describe and enumerate the indications for hospitalisation in patients with pneumonia | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | | |
| IM3.16 | Describe and enumerate the indications for isolation and barrier nursing in patients with pneumonia | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | | |
| IM3.17 | Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and indications for ventilation | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | | |
| IM3.18 | Communicate and counsel patient on family on the diagnosis and therapy of pneumonia | C/A | SH | Y | DOAP session | Skill assessment | | | |
| IM3.19 | Discuss, describe, enumerate the indications and communicate to patients on pneumococcal and influenza vaccines | S/C | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Microbiology | |

Topic: Fever and febrile syndromes

Number of competencies: (26)

Number of procedures that require certification : (NIL)

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| IM4.1 | Describe and discuss the febrile response and the influence of host immune status, risk factors and comorbidities on the febrile response | K | K | Y | Lecture, Small group discussion | Written | | Microbiology | |
| IM4.2 | Describe and discuss the influence of special populations on the febrile response including: the elderly, immune suppression, malignancy and neutropenia, HIV and travel | K | K | Y | Lecture, Small group discussion | Written | | Microbiology | |
| IM4.3 | Discuss and describe the common causes, pathophysiology and manifestations of fever in various regions in India including bacterial, parasitic and viral causes (e.g.Dengue, Chikungunya, Typhus) | K | K | Y | Lecture, Small group discussion | Written | | Microbiology, Community Medicine | |
| IM4.4 | Describe and discuss the pathophysiology and manifestations of inflammatory causes of fever | K | KH | Y | Lecture, Small group discussion | Written | | Microbiology | |
| IM4.5 | Describe and discuss the pathophysiology and manifestations of malignant causes of fever including hematologic and lymph node malignancies | K | KH | Y | Lecture, Small group discussion | Written | | Pathology, Microbiology | |
| IM4.6 | Discuss and describe the pathophysiology and manifestations of malaria | K | KH | Y | Lecture, Small group discussion | Written | | Microbiology | |
| IM4.7 | Discuss and describe the pathophysiology and manifestations of the sepsis syndrome | K | K | Y | Lecture, Small group discussion | Written | | | |
| IM4.8 | Discuss and describe the pathophysiology, aetiology and clinical manifestations of fever of unknown origin (FUO) including in a normal host, neutropenic host, nosocomial host and a host with HIV disease | K | K | Y | Lecture, Small group discussion | Written | | Microbiology | |
| IM4.9 | Elicit document and present a medical history that helps delineate the aetiology of fever that includes the evolution and pattern of fever, associated symptoms, immune status, comorbidities, risk factors, exposure through occupation, travel and environment and medication use | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Microbiology | |

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| IM4.10 | Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen) | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM4.11 | Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes | K | SH | Y | Bedside clinic, DOAP session | Written/ Viva voce | | | |
| IM4.12 | Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC | K | SH | Y | Bedside clinic, Skill assessment | Skill assessment | | Pathology, Microbiology | |
| IM4.13 | Perform and interpret a sputum gram stain | S | SH | Y | DOAP session | Log book/ documentation | | Microbiology | |
| IM4.14 | Perform and interpret a sputum AFB | S | SH | Y | DOAP session | Log book/ documentation | | Microbiology | |
| IM4.15 | Perform and interpret a malarial smear | S | SH | Y | DOAP session | Log book/ documentation/ Skill assessment | | Microbiology | |
| IM4.16 | Enumerate the indications and describe the findings in tests of inflammation and specific rheumatologic tests, serologic testing for pathogens including HIV, bone marrow aspiration and biopsy | K | KH | N | Lecture, Small group discussion | Written | | Pathology | |
| IM4.17 | Observe and assist in the performance of a bone marrow aspiration and biopsy in a simulated environment | S | SH | N | Skills lab | Log book/ documentation/ DOAP session | | Pathology | |
| IM4.18 | Enumerate the indications for use of imaging in the diagnosis of febrile syndromes | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM4.19 | Assist in the collection of blood and wound cultures | S | SH | Y | DOAP session | Log book/ documentation | | Microbiology | |

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| IM4.20 | Interpret a PPD (Mantoux) | S | SH | Y | DOAP session | Log book/ documentation | | Microbiology | |
| IM4.21 | Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost effective manner | K | KH | Y | Bedside clinic, Skill assessment | Skill assessment | | | |
| IM4.22 | Describe and discuss the pharmacology, indications, adverse reactions, interactions of antimalarial drugs and basis of resistance | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM4.23 | Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national programs | S | SH | Y | Small group discussion | Skill assessment | | Microbiology, Pharmacology | |
| IM4.24 | Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis | C | SH | Y | DOAP session | Skill assessment | | | |
| IM4.25 | Communicate to the patient and family the diagnosis and treatment | C | SH | Y | DOAP session | Skill assessment | | AETCOM | |
| IM4.26 | Counsel the patient on malarial prevention | C | SH | Y | DOAP session | Skill assessment | | Microbiology, Pharmacology | |
| Topic: Liver disease | | Number of competencies: (18) | | | Number of procedures that require certification : (NIL) | | | | |
| IM5.1 | Describe and discuss the physiologic and biochemical basis of hyperbilirubinemia | K | K | Y | Lecture, Small group discussion | Written/Viva voce | | Pathology, Physiology | |
| IM5.2 | Describe and discuss the aetiology and pathophysiology of liver injury | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM5.3 | Describe and discuss the pathologic changes in various forms of liver disease | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM5.4 | Describe and discuss the epidemiology, microbiology, immunology and clinical evolution of infective (viral) hepatitis | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Microbiology | |
| IM5.5 | Describe and discuss the pathophysiology and clinical evolution of alcoholic liver disease | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |

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| IM5.6 | Describe and discuss the pathophysiology, clinical evolution and complications of cirrhosis and portal hypertension including ascites, spontaneous bacterial peritonitis, hepatorenal syndrome and hepatic encephalopathy | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM5.7 | Enumerate and describe the causes and pathophysiology of drug induced liver injury | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Pharmacology | |
| IM5.8 | Describe and discuss the pathophysiology, clinical evolution and complications cholelithiasis and cholecystitis | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | General Surgery | |
| IM5.9 | Elicit document and present a medical history that helps delineate the aetiology of the current presentation and includes clinical presentation, risk factors, drug use, sexual history, vaccination history and family history | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM5.10 | Perform a systematic examination that establishes the diagnosis and severity that includes nutritional status, mental status, jaundice, abdominal distension ascites, features of portosystemic hypertension and hepatic encephalopathy | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM5.11 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom | K | KH | Y | Bedside clinic, DOAP session | Skill assessment/ Viva voce | | | |
| IM5.12 | Choose and interpret appropriate diagnostic tests including: CBC, bilirubin, function tests, Hepatitis serology and ascitic fluid examination in patient with liver diseases. | S | KH | Y | Bedside clinic, DOAP session | Skill assessment | | Pathology | |
| IM5.13 | Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver disease | K | K | Y | Bedside clinic, Small group discussion | Viva voce/ Written | | Radiodiagnosis | General Surgery |
| IM5.14 | Outline a diagnostic approach to liver disease based on hyperbilirubinemia, liver function changes and hepatitis serology | S | SH | Y | Bedside clinic, Small group discussion | Viva voce/ Written | | Pathology, Microbiology | |

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| IM5.15 | Assist in the performance and interpret the findings of an ascitic fluid analysis | S | KH | Y | DOAP session | documentation in log book | | | |
| IM5.16 | Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites spontaneous, bacterial peritonitis and hepatic encephalopathy | K | KH | Y | Written, Small group discussion | Skill assessment/ Written/ Viva voce | | Pharmacology | General Surgery |
| IM5.17 | Enumerate the indications, precautions and counsel patients on vaccination for hepatitis | K/C | SH | Y | Written, Small group discussion | Written/ Viva voce | | Microbiology | |
| IM5.18 | Enumerate the indications for hepatic transplantation | K | K | Y | Written, Small group discussion | Written/ Viva voce | | | General Surgery |
| Topic: HIV Number of competencies: (23) Number of procedures that require certification : (NIL) | | | | | | | | | |
| IM6.1 | Describe and discuss the symptoms and signs of acute HIV seroconversion | K | KH | Y | Lecture, Small group discussion | Short note/ Viva voce | | Microbiology | |
| IM6.2 | Define and classify HIV AIDS based on the CDC criteria | K | KH | Y | Lecture, Small group discussion | Short notes/ Viva voce | | Microbiology | |
| IM6.3 | Describe and discuss the relationship between CDC count and the risk of opportunistic infections | K | KH | Y | Lecture, Small group discussion | Short notes/ Viva voce | | Microbiology | |
| IM6.4 | Describe and discuss the pathogenesis, evolution and clinical features of common HIV related opportunistic infections | K | KH | Y | Lecture, Small group discussion | Short notes/ Viva voce | | Microbiology | |
| IM6.5 | Describe and discuss the pathogenesis, evolution and clinical features of common HIV related malignancies | K | KH | Y | Lecture, Small group discussion | Short notes/ Viva voce | | Pathology, Microbiology | |
| IM6.6 | Describe and discuss the pathogenesis, evolution and clinical features of common HIV related skin and oral lesions | K | KH | Y | Lecture, Small group discussion | Short notes/ Viva voce | | Pathology, Microbiology | |
| IM6.7 | Elicit document and present a medical history that helps delineate the aetiology of the current presentation and includes risk factors for HIV, mode of infection, other sexually transmitted diseases, risks for opportunistic infections and nutritional status | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM6.8 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom | S | SH | Y | Bedside clinic, DOAP session, Small group discussion | Skill assessment | | | |
| IM6.9 | Choose and interpret appropriate diagnostic tests to diagnose and classify the severity of HIV-AIDS including specific tests of HIV, CDC | K | KH | Y | Bedside clinic, DOAP session, Small group discussion | Written/ Skill assessment | | Pathology, Microbiology | |
| IM6.10 | Choose and interpret appropriate diagnostic tests to diagnose opportunistic infections including CBC, sputum examination and cultures, blood cultures, stool analysis, CSF analysis and Chest radiographs | S | KH | Y | Bedside clinic, DOAP session, Small group discussion | Written/ Skill assessment | | | |
| IM6.11 | Enumerate the indications and describe the findings for CT of the chest and brain and MRI | K | K | N | Small group discussion, Lecture, Bedside clinic | Written/ Viva voce | | Radiodiagnosis | |
| IM6.12 | Enumerate the indications for and interpret the results of: pulse oximetry, ABG, Chest Radiograph | K | KH | Y | Bedside clinic, DOAP session, Small group discussion | Written/ Skill assessment | | | |
| IM6.13 | Describe and enumerate the indications and side effects of drugs for bacterial, viral and other types of diarrhea | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology, Microbiology | |
| IM6.14 | Perform and interpret AFB sputum | S | P | Y | DOAP session | Skill assessment | | Microbiology | |
| IM6.15 | Demonstrate in a model the correct technique to perform a lumbar puncture | S | SH | Y | Simulation | Skill assessment | | Microbiology | |
| IM6.16 | Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology, Pharmacology | |
| IM6.17 | Discuss and describe the principles and regimens used in post exposure prophylaxis | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology, Pharmacology | |
| IM6.18 | Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections | K/C | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Microbiology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM6.19 | Counsel patients on prevention of HIV transmission | C | SH | Y | DOAP session | Skills assessment | | AETCOM | |
| IM6.20 | Communicate diagnosis, treatment plan and subsequent follow up plan to patients | C | SH | Y | DOAP session | Skills assessment | | AETCOM | |
| IM6.21 | Communicate with patients on the importance of medication adherence | C | SH | Y | DOAP session | Skills assessment | | AETCOM | |
| IM6.22 | Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV | K/A | SH | Y | DOAP session, Small group discussion | Viva voce/ Written/ Skill Assessment | | AETCOM | |
| IM6.23 | Demonstrate a non-judgemental attitude to patients with HIV and to their lifestyles | A | SH | Y | Small group discussion | observation by teacher | | AETCOM | |
| Topic: Rheumatologic problems | | Number of competencies: (27) | | | Number of procedures that require certification: (NIL) | | | | |
| IM7.1 | Describe the pathophysiology of autoimmune disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM7.2 | Describe the genetic basis of autoimmune disease | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM7.3 | Classify cause of joint pain based on the pathophysiology | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM7.4 | Develop a systematic clinical approach to joint pain based on the pathophysiology | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| IM7.5 | Describe and discriminate acute, subacute and chronic causes of joint pain | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| IM7.6 | Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| IM7.7 | Discriminate, describe and discuss distinguishing articular from periarticular complaints | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| IM7.8 | Determine the potential causes of joint pain based on the presenting features of joint involvement | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM7.9 | Describe the common signs and symptoms of articular and periarticular diseases | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| IM7.10 | Describe the systemic manifestations of rheumatologic disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM7.11 | Elicit document and present a medical history that will differentiate the aetiologies of disease | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM7.12 | Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | Orthopedics |
| IM7.13 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | K/S | KH | Y | Bedside clinic, Small group discussion | Skill assessment/ Written | | | |
| IM7.14 | Describe the appropriate diagnostic work up based on the presumed aetiology | K | KH | Y | Bedside clinic, Small group discussion | Skill assessment/ Written | | | |
| IM7.15 | Enumerate the indications for and interpret the results of : CBC, anti-CCP, RA, ANA, DNA and other tests of autoimmunity | K | SH | Y | Bedside clinic, Small group discussion | Skill assessment/ Written | | Pathology | |
| IM7.16 | Enumerate the indications for arthrocentesis | K | K | Y | Small group discussion, Lecture | Written/ Viva voce | | | Orthopedics |
| IM7.17 | Enumerate the indications and interpret plain radiographs of joints | K | SH | Y | Bedside clinic, Small group discussion | Skill assessment/ Written | | Radiodiagnosis | Orthopedics |
| IM7.18 | Communicate diagnosis, treatment plan and subsequent follow up plan to patients | C | SH | Y | DOAP session | Skill assessment/ Written | | | |
| IM7.19 | Develop an appropriate treatment plan for patients with rheumatologic diseases | K | KH | Y | Bedside clinic, Small group discussion | Skill assessment/ Written | | | |
| IM7.20 | Select, prescribe and communicate appropriate medications for relief of joint pain | K/C | SH | Y | DOAP session | Skill assessment/ Written | | Pharmacology | Orthopedics |
| IM7.21 | Select, prescribe and communicate preventive therapy for crystalline arthropathies | K/C | SH | Y | DOAP session | Skill assessment/ Written | | Pharmacology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM7.22 | Select, prescribe and communicate treatment option for systemic rheumatologic conditions | K/C | SH | Y | DOAP session | Skill assessment/ Written | | Pharmacology | |
| IM7.23 | Describe the basis for biologic and disease modifying therapy in rheumatologic diseases | K | KH | Y | Bedside clinic, Small group discussion | Skill assessment/ Written | | Pharmacology | |
| IM7.24 | Communicate and incorporate patient preferences in the choice of therapy | C/A | SH | Y | DOAP session | Skill assessment | | AETCOM | |
| IM7.25 | Develop and communicate appropriate follow up and monitoring plans for patients with rheumatologic conditions | C | SH | Y | DOAP session | Skill assessment | | | |
| IM7.26 | Demonstrate an understanding of the impact of rheumatologic conditions on quality of life, well being, work and family | A | SH | Y | DOAP session | Skill assessment | | | |
| IM7.27 | Determine the need for specialist consultation | K | K | Y | Small group discussion, Lecture | Viva voce | | | |
| Topic: Hypertension | | Number of competencies: (20) | | | Number of procedures that require certification: (NIL) | | | | |
| IM8.1 | Describe and discuss the epidemiology, aetiology and the prevalence of primary and secondary hypertension | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM8.2 | Describe and discuss the pathophysiology of hypertension | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM8.3 | Describe and discuss the genetic basis of hypertension | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM8.4 | Define and classify hypertension | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM8.5 | Describe and discuss the differences between primary and secondary hypertension | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM8.6 | Define, describe and discuss and recognise hypertensive urgency and emergency | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM8.7 | Describe and discuss the clinical manifestations of the various aetiologies of secondary causes of hypertension | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM8.8 | Describe, discuss and identify target organ damage due to hypertension | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM8.9 | Elicit document and present a medical history that includes: duration and levels, symptoms, comorbidities, lifestyle, risk factors, family history, psychosocial and environmental factors, dietary assessment, previous and concomitant therapy | K | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM8.10 | Perform a systematic examination that includes : an accurate measurement of blood pressure, fundus examination, examination of vasculature and heart | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM8.11 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM8.12 | Describe the appropriate diagnostic work up based on the presumed aetiology | K | KH | Y | Small group discussion | Skill assessment/ Written/ Viva voce | | | |
| IM8.13 | Enumerate the indications for and interpret the results of : CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG | K | KH | Y | Small group discussion | Skill assessment/ Written/ Viva voce | | | |
| IM8.14 | Develop an appropriate treatment plan for essential hypertension | K | KH | Y | Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM8.15 | Recognise, prioritise and manage hypertensive emergencies | S | SH | Y | DOAP session | Skill assessment/ Written | | Pharmacology | |
| IM8.16 | Develop and communicate to the patient lifestyle modification including weight reduction, moderation of alcohol intake, physical activity and sodium intake | C | SH | Y | DOAP session | Skill assessment | | | |
| IM8.17 | Perform and interpret a 12 lead ECG | S | P | Y | DOAP session | documentation in log book/ skills station | | | |
| IM8.18 | Incorporate patient preferences in the management of HTN | A/C | SH | Y | DOAP session | Skill assessment | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM8.19 | Demonstrate understanding of the impact of Hypertension on quality of life, well being, work and family | A | SH | Y | Bedside clinic, DOAP session | observation by faculty | | | |
| IM8.20 | Determine the need for specialist consultation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Anemia | | Number of competencies: (21) | | | Number of procedures that require certification : (NIL) | | | | |
| IM9.1 | Define, describe and classify anemia based on red blood cell size and reticulocyte count | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM9.2 | Describe and discuss the morphological characteristics, aetiology and prevalence of each of the causes of anemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM9.3 | Elicit document and present a medical history that includes symptoms, risk factors including GI bleeding, prior history, medications, menstrual history, and family history | S | SH | Y | Bed side clinic, DOAP session | Skill assessment | | | |
| IM9.4 | Perform a systematic examination that includes : general examination for pallor, oral examination, DOAP session of hyper dynamic circulation, lymph node and splenic examination | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM9.5 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Written | | Pathology | |
| IM9.6 | Describe the appropriate diagnostic work up based on the presumed aetiology | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Written | | Pathology | |
| IM9.7 | Describe and discuss the meaning and utility of various components of the hemogram | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce/ Skill assessment | | Pathology | |
| IM9.8 | Describe and discuss the various tests for iron deficiency | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce/ Skill assessment | | Pathology | |
| IM9.9 | Order and interpret tests for anemia including hemogram, red cell indices, reticulocyte count, iron studies, B12 and folate | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Written | | Pathology | |
| IM9.10 | Describe, perform and interpret a peripheral smear and stool occult blood | S | SH | P | Bedside clinic, DOAP session | Skill assessment/ Written | | Pathology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM9.11 | Describe the indications and interpret the results of a bone marrow aspirations and biopsy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce/ Skill assessment | | Pathology | |
| IM9.12 | Describe, develop a diagnostic plan to determine the aetiology of anemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce/ Skill assessment | | Pathology | |
| IM9.13 | Prescribe replacement therapy with iron, B12, folate | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Written | | Pharmacology | |
| IM9.14 | Describe the national programs for anemia prevention | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology, Community Medicine | |
| IM9.15 | Communicate the diagnosis and the treatment appropriately to patients | C | SH | Y | DOAP session | Skill assessment | | | |
| IM9.16 | Incorporate patient preferences in the management of anemia | C | SH | Y | DOAP session | Skill assessment | | | |
| IM9.17 | Describe the indications for blood transfusion and the appropriate use of blood components | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce/ Skill assessment | | Pathology | |
| IM9.18 | Describe the precautions required necessary when performing a blood transfusion | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce/ Skill assessment | | | |
| IM9.19 | Assist in a blood transfusion | S | SH | Y | Bedside clinic | document in log book | | | |
| IM9.20 | Communicate and counsel patients with methods to prevent nutritional anemia | C | SH | Y | DOAP session | Skill assessment | | | |
| IM9.21 | Determine the need for specialist consultation | K | KH | Y | Lecture, Small group discussion | Written | | | |
| Topic: Acute Kidney Injury and Chronic renal failure | | Number of competencies: (31) | | | Number of procedures that require certification: (NIL) | | | | |
| IM10.1 | Define, describe and differentiate between acute and chronic renal failure | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM10.2 | Classify, describe and differentiate the pathophysiologic causes of acute renal failure | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM10.3 | Describe the pathophysiology and causes of pre renal ARF, renal and post renal ARF | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM10.4 | Describe the evolution, natural history and treatment of ARF | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM10.5 | Describe and discuss the aetiology of CRF | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM10.6 | Stage Chronic Kidney Disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM10.7 | Describe and discuss the pathophysiology and clinical findings of uraemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM10.8 | Classify, describe and discuss the significance of proteinuria in CKD | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM10.9 | Describe and discuss the pathophysiology of anemia and hyperparathyroidism in CKD | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM10.10 | Describe and discuss the association between CKD glycemia and hypertension | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM10.11 | Describe and discuss the relationship between CAD risk factors and CKD and in dialysis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM10.12 | Elicit document and present a medical history that will differentiate the aetiologies of disease, distinguish acute and chronic disease, identify predisposing conditions, nephrotoxic drugs and systemic causes | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM10.13 | Perform a systematic examination that establishes the diagnosis and severity including determination of volume status, presence of edema and heart failure, features of uraemia and associated systemic disease | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM10.14 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | K | KH | Y | DOAP session, Small group discussion | Skill assessment/ Written/ Viva voce | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM10.15 | Describe the appropriate diagnostic work up based on the presumed aetiology | K | SH | Y | DOAP session, Small group discussion | Skill assessment/ Written/ Viva voce | | | |
| IM10.16 | Enumerate the indications for and interpret the results of : renal function tests, calcium, phosphorus, PTH, urine electrolytes, osmolality, Anion gap | K | KH | Y | DOAP session, Small group discussion | Skill assessment/ Written/ Viva voce | | Pathology | |
| IM10.17 | Describe and calculate indices of renal function based on available laboratories including FENa (Fractional Excretion of Sodium) and CrCl (Creatinine Clearance) | S | SH | Y | DOAP session, Small group discussion | Skill assessment/ Written/ Viva voce | | Pathology | |
| IM10.18 | Identify the ECG findings in hyperkalemia | S | SH | Y | DOAP session, Small group discussion | Skill assessment/ Written/ Viva voce | | | |
| IM10.19 | Enumerate the indications and describe the findings in renal ultrasound | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Radiodiagnosis | |
| IM10.20 | Describe and discuss the indications to perform arterial blood gas analysis: interpret the data | S | P | Y | DOAP session | documentation in log book | | | |
| IM10.21 | Describe and discuss the indications for and insert a peripheral intravenous catheter | S | P | Y | DOAP session, Bedside clinic | documentation in logbook | | | |
| IM10.22 | Describe and discuss the indications, demonstrate in a model and assist in the insertion of a central venous or a dialysis catheter | S | SH | N | DOAP session | Skill assessment with model | | | |
| IM10.23 | Communicate diagnosis treatment plan and subsequent follow up plan to patients | C | SH | Y | DOAP session | Skill assessment | | | |
| IM10.24 | Counsel patients on a renal diet | K | SH | Y | DOAP session | Skill assessment | | | |
| IM10.25 | Identify and describe the priorities in the management of ARF including diet, volume management, alteration in doses of drugs, monitoring and indications for dialysis | K/C | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM10.26 | Describe and discuss supportive therapy in CKD including diet, anti hypertensives, glycemc therapy, dyslipidemia, anemia, hyperkalemia, hyperphosphatemia and secondary hyperparathyroidism | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM10.27 | Describe and discuss the indications for renal dialysis | C/A | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM10.28 | Describe and discuss the indications for renal replacement therapy | C | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM10.29 | Describe discuss and communicate the ethical and legal issues involved in renal replacement therapy | C/A | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM10.30 | Recognise the impact of CKD on patient's quality of life well being work and family | A | K | Y | Lecture, Small group discussion, Bedside clinic | observation by faculty | | | |
| IM10.31 | Incorporate patient preferences in to the care of CKD | A/C | KH | Y | Lecture, Small group discussion, Bedside clinic | observation by faculty | | | |
| Topic: Diabetes Mellitus | | Number of competencies: (24) | | | Number of procedures that require certification : (02) | | | | |
| IM11.1 | Define and classify diabetes | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM11.2 | Describe and discuss the epidemiology and pathogenesis and risk factors and clinical evolution of type 1 diabetes | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM11.3 | Describe and discuss the epidemiology and pathogenesis and risk factors economic impact and clinical evolution of type 2 diabetes | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM11.4 | Describe and discuss the genetic background and the influence of the environment on diabetes | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM11.5 | Describe and discuss the pathogenesis and temporal evolution of microvascular and macrovascular complications of diabetes | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM11.6 | Describe and discuss the pathogenesis and precipitating factors, recognition and management of diabetic emergencies | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM11.7 | Elicit document and present a medical history that will differentiate the aetiologies of diabetes including risk factors, precipitating factors, lifestyle, nutritional history, family history, medication history, co-morbidities and target organ disease | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM11.8 | Perform a systematic examination that establishes the diagnosis and severity that includes skin, peripheral pulses, blood pressure measurement, fundus examination, detailed examination of the foot (pulses, nervous and deformities and injuries) | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM11.9 | Describe and recognise the clinical features of patients who present with a diabetic emergency | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | | |
| IM11.10 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | | |
| IM11.11 | Order and interpret laboratory tests to diagnose diabetes and its complications including: glucoses, glucose tolerance test, glycosylated hemoglobin, urinary micro albumin, ECG, electrolytes, ABG, ketones, renal function tests and lipid profile | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Pathology | |
| IM11.12 | Perform and interpret a capillary blood glucose test | S | P | Y | Bedside clinic, DOAP session | Skill assessment | 2 | Pathology, Biochemistry | |
| IM11.13 | Perform and interpret a urinary ketone estimation with a dipstick | S | P | Y | Bedside clinic, DOAP session | Skill assessment | 2 | Pathology, Biochemistry | |
| IM11.14 | Recognise the presentation of hypoglycaemia and outline the principles on its therapy | K | KH | Y | Small Group discussion, Lecture | Written/ Viva voce | | | |
| IM11.15 | Recognise the presentation of diabetic emergencies and outline the principles of therapy | K | KH | Y | Small Group discussion, Lecture | Written/ Viva voce | | | |
| IM11.16 | Discuss and describe the pharmacologic therapies for diabetes their indications, contraindications, adverse reactions and interactions | K | KH | Y | Small Group discussion, Lecture | Written/ Viva voce | | Pharmacology | |
| IM11.17 | Outline a therapeutic approach to therapy of T2Diabetes based on presentation, severity and complications in a cost effective manner | K | KH | Y | Small Group discussion, Lecture | Written/ Viva voce | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM11.18 | Describe and discuss the pharmacology, indications, adverse reactions and interactions of drugs used in the prevention and treatment of target organ damage and complications of Type II Diabetes including neuropathy, nephropathy, retinopathy, hypertension, dyslipidemia and cardiovascular disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM11.19 | Demonstrate and counsel patients on the correct technique to administer insulin | S/C | SH | Y | DOAP session | Skill assessment | | Pharmacology | |
| IM11.20 | Demonstrate to and counsel patients on the correct technique of self monitoring of blood glucoses | S/C | SH | Y | DOAP session | Skill assessment | | | |
| IM11.21 | Recognise the importance of patient preference while selecting therapy for diabetes | A | KH | Y | DOAP session | faculty observation | | | |
| IM11.22 | Enumerate the causes of hypoglycaemia and describe the counter hormone response and the initial approach and treatment | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM11.23 | Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of diabetic ketoacidosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM11.24 | Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of Hyperosmolar non ketotic state | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Thyroid dysfunction | | Number of competencies: (15) | | | Number of procedures that require certification : (NIL) | | | | |
| IM12.1 | Describe the epidemiology and pathogenesis of hypothyroidism and hyperthyroidism including the influence of iodine deficiency and autoimmunity in the pathogenesis of thyroid disease | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM12.2 | Describe and discuss the genetic basis of some forms of thyroid dysfunction | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM12.3 | Describe and discuss the physiology of the hypothalamopituitary - thyroid axis, principles of thyroid function testing and alterations in physiologic function | K | K | Y | Lecture, Small group discussion | Short notes | | Pathology, Physiology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM12.4 | Describe and discuss the principles of radio iodine uptake in the diagnosis of thyroid disorders | K | KH | Y | Lecture, Small group discussion | Short notes/ Viva voce | | | |
| IM12.5 | Elicit document and present an appropriate history that will establish the diagnosis cause of thyroid dysfunction and its severity | S | SH | Y | Bedside clinic | Skill assessment/ Short case | | | |
| IM12.6 | Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and severity including systemic signs of thyrotoxicosis and hypothyroidism, palpation of the pulse for rate and rhythm abnormalities, neck palpation of the thyroid and lymph nodes and cardiovascular findings | S | SH | Y | Bed side clinic, DOAP session | Skill assessment | | | General Surgery |
| IM12.7 | Demonstrate the correct technique to palpate the thyroid | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | General Surgery |
| IM12.8 | Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis | K | KH | Y | Bedside clinic, small group discussion | Short case | | | General Surgery |
| IM12.9 | Order and interpret diagnostic testing based on the clinical diagnosis including CBC, thyroid function tests and ECG and radio iodine uptake and scan | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | General Surgery |
| IM12.10 | Identify atrial fibrillation, pericardial effusion and bradycardia on ECG | S | SH | Y | Bedside clinic, lab | Skill assessment | | | General Surgery |
| IM12.11 | Interpret thyroid function tests in hypo and hyperthyroidism | S | SH | Y | Bedside clinic, lab | Skill assessment | | | General Surgery |
| IM12.12 | Describe and discuss the iodisation programs of the government of India | K | KH | Y | Lecture, Bedside clinic | Short note | | Community Medicine | |
| IM12.13 | Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs | K | KH | Y | Lecture, Small group discussion | Viva voce/ Short note | | Pharmacology | General Surgery |
| IM12.14 | Write and communicate to the patient appropriately a prescription for thyroxine based on age, sex, and clinical and biochemical status | S/C | SH | Y | Skill assessment | Skill assessment | | Pharmacology | |
| IM12.15 | Describe and discuss the indications of thionamide therapy, radio iodine therapy and surgery in the management of thyrotoxicosis | K | KH | Y | Bedside clinic, Small group discussion | Short note/ Viva voce | | Pharmacology | General Surgery |

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| Topic: Common malignancies | | Number of competencies: (19) | | | Number of procedures that require certification : (NIL) | | | | |
| IM13.1 | Describe the clinical epidemiology and inherited & modifiable risk factors for common malignancies in India | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology, Biochemistry | |
| IM13.2 | Describe the genetic basis of selected cancers | K | K | N | Lecture, Small group discussion | Short note/ Viva voce | | Pathology | |
| IM13.3 | Describe the relationship between infection and cancers | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology, Microbiology | |
| IM13.4 | Describe the natural history, presentation, course, complications and cause of death for common cancers | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology | |
| IM13.5 | Describe the common issues encountered in patients at the end of life and principles of management | K | K | N | Lecture, Small group discussion | Short note/ Viva voce | | | |
| IM13.6 | Describe and distinguish the difference between curative and palliative care in patients with cancer | K | K | N | Lecture, Small group discussion | Short note/ Viva voce | | Pharmacology | |
| IM13.7 | Elicit document and present a history that will help establish the aetiology of cancer and includes the appropriate risk factors, duration and evolution | S | K | Y | Bedside clinic | Skill assessment/ Short case | | | General Surgery |
| IM13.8 | Perform and demonstrate a physical examination that includes an appropriate general and local examination that excludes the diagnosis, extent spread and complications of cancer | S | SH | Y | Bedside clinic | Skill assessment/ short case | | | General Surgery |
| IM13.9 | Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and pap smear | S | K | Y | Bedside clinic | Skill assessment/ Short case | | Human Anatomy | General Surgery |
| IM13.10 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis | S | K | Y | Bedside clinic | Skill assessment/ Short case | | | General Surgery |
| IM13.11 | Order and interpret diagnostic testing based on the clinical diagnosis including CBC and stool occult blood and prostate specific antigen | S | K | Y | Bedside clinic | Skill assessment/ Short case | | | |

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| IM13.12 | Describe the indications and interpret the results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers | K | KH | Y | Bedside clinic, Small group discussion | Short note/ Viva voce | | Radiodiagnosis | |
| IM13.13 | Describe and assess pain and suffering objectively in a patient with cancer | K | KH | Y | Bedside clinic, Small group discussion | Short note/ Viva voce | | Pharmacology | General Surgery |
| IM13.14 | Describe the indications for surgery, radiation and chemotherapy for common malignancies | K | KH | Y | Bedside clinic, Small group discussion | Short note/ Viva voce | | Pharmacology | General Surgery |
| IM13.15 | Describe the need, tests involved, their utility in the prevention of common malignancies | K | KH | Y | Bedside clinic, Small group discussion | Short note/ Viva voce | | Pathology | |
| IM13.16 | Demonstrate an understanding and needs and preferences of patients when choosing curative and palliative therapy | A/C | KH | Y | Bedside clinic, small group discussion | Short note/ Viva voce | | AETCOM | |
| IM13.17 | Describe and enumerate the indications, use, side effects of narcotics in pain alleviation in patients with cancer | K | KH | Y | Bedside clinic, Small group discussion | Short note/ Viva voce | | Pharmacology | Anesthesiology |
| IM13.18 | Describe and discuss the ethical and the medico legal issues involved in end of life care | K | KH | Y | Bedside clinic, Small group discussion | Short note/ Viva voce | | AETCOM | |
| IM13.19 | Describe the therapies used in alleviating suffering in patients at the end of life | K | KH | Y | Bedside clinic, Small group discussion | Short note/ Viva voce | | AETCOM | |
| Topic: Obesity | | Number of competencies: (15) | | | Number of procedures that require certification: (NIL) | | | | |
| IM14.1 | Define and measure obesity as it relates to the Indian population | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | | |
| IM14.2 | Describe and discuss the aetiology of obesity including modifiable and non-modifiable risk factors and secondary causes | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology | |
| IM14.3 | Describe and discuss the monogenic forms of obesity | K | K | N | Lecture, Small group discussion | Short note/ Viva voce | | Pathology | |

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| IM14.4 | Describe and discuss the impact of environmental factors including eating habits, food, work, environment and physical activity on the incidence of obesity | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology, Community Medicine | |
| IM14.5 | Describe and discuss the natural history of obesity and its complications | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology | |
| IM14.6 | Elicit and document and present an appropriate history that includes the natural history, dietary history, modifiable risk factors, family history, clues for secondary causes and motivation to lose weight | S | SH | Y | Bedside clinic, Skills lab | Skill assessment | | | |
| IM14.7 | Perform, document and demonstrate a physical examination based on the history that includes general examination, measurement of abdominal obesity, signs of secondary causes and comorbidities | S | SH | Y | Bedside clinic, Skills lab | Skill assessment | | | |
| IM14.8 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis | S | SH | Y | Bedside clinic, Skills lab | Skill assessment/ Short note/ Viva voce | | | |
| IM14.9 | Order and interpret diagnostic tests based on the clinical diagnosis including blood glucose, lipids, thyroid function tests etc. | S | SH | Y | Bedside clinic, Skills lab, Small group discussion | Skill assessment/ Short note/ Viva voce | | | |
| IM14.10 | Describe the indications and interpret the results of tests for secondary causes of obesity | K | KH | Y | Bedside clinic, Skills lab, Small group discussion | Skill assessment/ Short note/ Viva voce | | | |
| IM14.11 | Communicate and counsel patient on behavioural, dietary and lifestyle modifications | C | SH | Y | Bedside clinic, Skills lab | Skill assessment | | | |
| IM14.12 | Demonstrate an understanding of patient's inability to adhere to lifestyle instructions and counsel them in a non - judgemental way | A/C | SH | Y | Bedside clinic, Skills lab | Skill assessment | | | |
| IM14.13 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for obesity | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pharmacology | |
| IM14.14 | Describe and enumerate the indications and side effects of bariatric surgery | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | | General Surgery |

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| IM14.15 | Describe and enumerate and educate patients, health care workers and the public on measures to prevent obesity and promote a healthy lifestyle | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | | |
| Topic: GI bleeding Number of competencies: (18) Number of procedures that require certification : (NIL) | | | | | | | | | |
| IM15.1 | Enumerate, describe and discuss the aetiology of upper and lower GI bleeding | K | KH | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology | General Surgery |
| IM15.2 | Enumerate, describe and discuss the evaluation and steps involved in stabilizing a patient who presents with acute volume loss and GI bleed | S | SH | Y | DOAP session, Small group discussion, Lecture | Written/ Viva voce/ Skill assessment | | Pathology | General Surgery |
| IM15.3 | Describe and discuss the physiologic effects of acute blood and volume loss | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology, Physiology | General Surgery |
| IM15.4 | Elicit and document and present an appropriate history that identifies the route of bleeding, quantity, grade, volume loss, duration, etiology, comorbid illnesses and risk factors | S | SH | Y | Bedside clinic | Skill assessment | | | General Surgery |
| IM15.5 | Perform, demonstrate and document a physical examination based on the history that includes general examination, volume assessment and appropriate abdominal examination | S | SH | Y | Bedside clinic, Skills lab | Skill assessment | | | General Surgery |
| IM15.6 | Distinguish between upper and lower gastrointestinal bleeding based on the clinical features | S | KH | Y | Lecture, Small group discussion | Short note/ Viva voce | | | General Surgery |
| IM15.7 | Demonstrate the correct technique to perform an anal and rectal examination in a mannequin or equivalent | S | SH | Y | DOAP session | Skill assessment | | | General Surgery |
| IM15.8 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis | S | SH | Y | Bedside clinic, Skills lab | Skill assessment/ Short note/ Viva voce | | | General Surgery |
| IM15.9 | Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, PT and PTT, stool examination, occult blood, liver function tests, H.pylori test. | S | SH | Y | Bedside clinic, DOAP session, Small group discussion | Skill assessment/ Short note/ Viva voce | | Pathology | General Surgery |

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| IM15.10 | Enumerate the indications for endoscopy, colonoscopy and other imaging procedures in the investigation of Upper GI bleeding | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Surgery |
| IM15.11 | Develop, document and present a treatment plan that includes fluid resuscitation, blood and blood component transfusion, and specific therapy for arresting blood loss | S | KH | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology | General Surgery |
| IM15.12 | Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology | General Surgery |
| IM15.13 | Observe cross matching and blood / blood component transfusion | S | SH | Y | Bedside clinic | Short note/ Viva voce/ Skill assessment | | Pathology | General Surgery |
| IM15.14 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of pressors used in the treatment of Upper GI bleed | K | K | Y | Lecture, Small group discussion | Short note/Viva voce | | Pharmacology | General Surgery |
| IM15.15 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of acid peptic disease including Helicobacter pylori | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pharmacology, Microbiology | General Surgery |
| IM15.16 | Enumerate the indications for endoscopic interventions and Surgery | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | | General Surgery |
| IM15.17 | Determine appropriate level of specialist consultation | S | K | Y | Small group discussion | | | | General Surgery |
| IM15.18 | Counsel the family and patient in an empathetic non-judgmental manner on the diagnosis and therapeutic options | S | SH | Y | DOAP session | Skill assessment | | | General Surgery |
| Topic: Diarrheal disorder | | Number of competencies: (17) | | | Number of procedures that require certification : (NIL) | | | | |
| IM16.1 | Describe and discuss the aetiology of acute and chronic diarrhea including infectious and non infectious causes | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Microbiology | |
| IM16.2 | Describe and discuss the acute systemic consequences of diarrhea including its impact on fluid balance | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | | |

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| IM16.3 | Describe and discuss the chronic effects of diarrhea including malabsorption | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | | |
| IM16.4 | Elicit and document and present an appropriate history that includes the natural history, dietary history, travel , sexual history and other concomitant illnesses | S | SH | Y | Bedside clinic, Skills lab | Skill assessment | | Microbiology, Pathology | |
| IM16.5 | Perform, document and demonstrate a physical examination based on the history that includes general examination, including an appropriate abdominal examination | S | SH | Y | Bedside clinic, Skills lab | Skill assessment | | | |
| IM16.6 | Distinguish between diarrhea and dysentery based on clinical features | S | KH | Y | Lecture, Small group discussion | Short note/ Viva voce | | | |
| IM16.7 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis | S | SH | Y | Bedside clinic, Skills lab | Skill assessment/ short note/ Viva voce | | | |
| IM16.8 | Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, and stool examination | S | SH | Y | Bedside clinic, Skills lab, Small group discussion | Skill assessment/ Short note/ Viva voce | | Microbiology, Pathology | |
| IM16.9 | Identify common parasitic causes of diarrhea under the microscope in a stool specimen | S | SH | Y | DOAP session | Skill assessment | | Microbiology | |
| IM16.10 | Identify vibrio cholera in a hanging drop specimen | S | SH | Y | DOAP session | Skill Assessment | | Microbiology | |
| IM16.11 | Enumerate the indications for stool cultures and blood cultures in patients with acute diarrhea | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| IM16.12 | Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging and biopsy in the diagnosis of chronic diarrhea | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | General Surgery |
| IM16.13 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for parasitic causes of diarrhea | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pharmacology, Microbiology | |
| IM16.14 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for bacterial and viral diarrhea | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pharmacology, Microbiology | |

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| IM16.15 | Distinguish based on the clinical presentation Crohn's disease from Ulcerative Colitis | S | SH | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pathology | General Surgery |
| IM16.16 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy including immunotherapy | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pharmacology | |
| IM16.17 | Describe and enumerate the indications for surgery in inflammatory bowel disease | K | K | Y | Lecture, Small group discussion | Short note/ Viva voce | | | General Surgery |
| Topic: Headache | | Number of competencies: (14) | | | Number of procedures that require certification : (NIL) | | | | |
| IM17.1 | Define and classify headache and describe the presenting features, precipitating factors, aggravating and relieving factors of various kinds of headache | K | KH | Y | Lecture, Small group discussion | Short note/ Viva voce | | Human Anatomy | |
| IM17.2 | Elicit and document and present an appropriate history including aura, precipitating aggravating and relieving factors, associated symptoms that help identify the cause of headaches | S | SH | Y | Bedside clinic, Small group discussion | Bedside clinic/ Skill assessment | | | |
| IM17.3 | Classify migraine and describe the distinguishing features between classical and non classical forms of migraine | K | KH | Y | Bedside clinic, Small group discussion | Bedside clinic/ Skill assessment | | | |
| IM17.4 | Perform and demonstrate a general neurologic examination and a focused examination for signs of intracranial tension including neck signs of meningitis | S | SH | Y | Bedside clinic, Small group discussion | Bedside clinic/ Skill assessment | | | |
| IM17.5 | Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation | S | SH | Y | Bedside clinic, Small group discussion | Bedside clinic/ skill assessment | | | |
| IM17.6 | Choose and interpret diagnostic testing based on the clinical diagnosis including imaging | S | SH | Y | Lecture, Small group discussion, Bedside clinic | Skill Assessment | | | |
| IM17.7 | Enumerate the indications and describe the findings in the CSF in patients with meningitis | K | K | Y | Small group discussion, Bedside clinic | Skill Assessment | | Microbiology, Pathology | |

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| IM17.8 | Demonstrate in a mannequin or equivalent the correct technique for performing a lumbar puncture | S | SH | Y | DOAP session | Skill assessment | | Microbiology, Pathology | |
| IM17.9 | Interpret the CSF findings when presented with various parameters of CSF fluid analysis | S | SH | Y | Small group discussion, Bedside clinic | Skill assessment | | Microbiology, Pathology | |
| IM17.10 | Enumerate the indications for emergency care admission and immediate supportive care in patients with headache | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM17.11 | Describe the indications, pharmacology, dose, side effects of abortive therapy in migraine | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM17.12 | Describe the indications, pharmacology, dose, side effects of prophylactic therapy in migraine | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM17.13 | Describe the pharmacology, dose, adverse reactions and regimens of drugs used in the treatment of bacterial, tubercular and viral meningitis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM17.14 | Counsel patients with migraine and tension headache on lifestyle changes and need for prophylactic therapy | A/C | SH | N | DOAP session | Skill Assessment | | Pharmacology | Psychiatry |
| Topic: Cerebrovascular accident | | Number of competencies: (17) | | | Number of procedures that require certification : (NIL) | | | | |
| IM18.1 | Describe the functional and the vascular anatomy of the brain | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Human Anatomy | |
| IM18.2 | Classify cerebrovascular accidents and describe the aetiology, predisposing genetic and risk factors pathogenesis of hemorrhagic and non hemorrhagic stroke | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| IM18.3 | Elicit and document and present an appropriate history including onset, progression, precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the cerebrovascular accident | S | SH | Y | Bedside clinic | Skill assessment | | Pathology | |

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| IM18.4 | Identify the nature of the cerebrovascular accident based on the temporal evolution and resolution of the illness | K | KH | Y | Bedside clinic, Small group discussion | Skill Assessment | | | |
| IM18.5 | Perform, demonstrate & document physical examination that includes general and a detailed neurologic examination as appropriate, based on the history | S | SH | Y | Bedside clinic, DOAP session | Skill Assessment | | | |
| IM18.6 | Distinguish the lesion based on upper vs lower motor neuron, side, site and most probable nature of the lesion | K/S | SH | Y | Bedside clinic, DOAP session | Skill Assessment | | Physiology | |
| IM18.7 | Describe the clinical features and distinguish, based on clinical examination, the various disorders of speech | K/S | SH | N | Bedside clinic, DOAP session | Skill Assessment | | Physiology | |
| IM18.8 | Describe and distinguish, based on the clinical presentation, the types of bladder dysfunction seen in CNS disease | K | KH | Y | Small group discussion, Bedside clinic | Written/ Viva voce | | Physiology | |
| IM18.9 | Choose and interpret the appropriate diagnostic and imaging test that will delineate the anatomy and underlying cause of the lesion | S | KH | Y | Bedside clinic, DOAP session, Small group discussion | Written/ Viva voce/ Skill assessment | | Radiodiagnosis | |
| IM18.10 | Choose and interpret the appropriate diagnostic testing in young patients with a cerebrovascular accident (CVA) | S | SH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM18.11 | Describe the initial supportive management of a patient presenting with a cerebrovascular accident (CVA) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM18.12 | Enumerate the indications for and describe acute therapy of non hemorrhagic stroke including the use of thrombolytic agents | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM18.13 | Enumerate the indications for and describe the role of anti platelet agents in non hemorrhagic stroke | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM18.14 | Describe the initial management of a hemorrhagic stroke | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM18.15 | Enumerate the indications for surgery in a hemorrhagic stroke | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Surgery |

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| IM18.16 | Enumerate the indications describe and observe the multidisciplinary rehabilitation of patients with a CVA | S | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Physical Medicine & Rehabilitation |
| IM18.17 | Counsel patient and family about the diagnosis and therapy in an empathetic manner | A/C | SH | Y | DOAP session | Skill assessment | | | |
| Topic: Movement disorders | | Number of competencies: (09) | | | Number of procedures that require certification : (NIL) | | | | |
| IM19.1 | Describe the functional anatomy of the locomotor system of the brain | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Human Anatomy, Physiology | |
| IM19.2 | Classify movement disorders of the brain based on distribution, rhythm, repetition, exacerbating and relieving factors | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM19.3 | Elicit and document and present an appropriate history including onset, progression precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the movement disorders | S | SH | Y | Bedside clinic | Skill assessment | | | |
| IM19.4 | Perform, demonstrate and document a physical examination that includes a general examination and a detailed neurologic examination using standard movement rating scales | S | SH | Y | Bedside clinic | Skill assessment | | | |
| IM19.5 | Generate document and present a differential diagnosis and prioritise based on the history and physical examination | S | SH | Y | Bedside clinic | Skill assessment | | | |
| IM19.6 | Make a clinical diagnosis regarding on the anatomical location, nature and cause of the lesion based on the clinical presentation and findings | S | SH | Y | Bedside clinic | Skill assessment | | | |
| IM19.7 | Choose and interpret diagnostic and imaging tests in the diagnosis of movement disorders | S | SH | Y | Bedside clinic, Small group session | Skill assessment/ Written/ Viva voce | | Radiodiagnosis | |
| IM19.8 | Discuss and describe the pharmacology, dose, side effects and interactions used in the drug therapy of Parkinson's syndrome | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM19.9 | Enumerate the indications for use of surgery and botulinum toxin in the treatment of movement disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | General Surgery |

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|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------|--------------|----------------------------------------------------------------|-----------------------------------------|---------------------------------------|---------------------------------|---------------------------|
| Topic: Envenomation | | Number of competencies: (09) | | | Number of procedures that require certification : (NIL) | | | | |
| IM20.1 | Enumerate the local poisonous snakes and describe the distinguishing marks of each | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Forensic Medicine, Pharmacology | |
| IM20.2 | Describe, demonstrate in a volunteer or a mannequin and educate (to other health care workers / patients) the correct initial management of patient with a snake bite in the field | S | SH | Y | DOAP session | Skill assessment/ Written/ Viva voce | | Forensic Medicine | |
| IM20.3 | Describe the initial approach to the stabilisation of the patient who presents with snake bite | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Forensic Medicine | |
| IM20.4 | Elicit and document and present an appropriate history, the circumstance, time, kind of snake, evolution of symptoms in a patient with snake bite | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Forensic Medicine | |
| IM20.5 | Perform a systematic examination, document and present a physical examination that includes general examination, local examination, appropriate cardiac and neurologic examination | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM20.6 | Choose and interpret the appropriate diagnostic testing in patients with snake bites | S | SH | Y | Small group discussion | Written/ Viva voce | | | |
| IM20.7 | Enumerate the indications and describe the pharmacology, dose, adverse reactions, hypersensitivity reactions of anti snake venom | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM20.8 | Describe the diagnosis, initial approach stabilisation and therapy of scorpion envenomation | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM20.9 | Describe the diagnosis initial approach stabilisation and therapy of bee sting allergy | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| Topic: Poisoning | | Number of competencies: (08) | | | Number of procedures that require certification : (NIL) | | | | |
| IM21.1 | Describe the initial approach to the stabilisation of the patient who presents with poisoning | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |

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| IM21.2 | Enumerate the common plant poisons seen in your area and describe their toxicology, clinical features, prognosis and specific approach to detoxification | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Forensic Medicine, Pharmacology | |
| IM21.3 | Enumerate the common corrosives used in your area and describe their toxicology, clinical features, prognosis and approach to therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Forensic Medicine, Pharmacology | |
| IM21.4 | Enumerate the commonly observed drug overdose in your area and describe their toxicology, clinical features, prognosis and approach to therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Forensic Medicine, Pharmacology | |
| IM21.5 | Observe and describe the functions and role of a poison center in suspected poisoning | S | KH | Y | DOAP session | document in log book | | Forensic Medicine, Pharmacology | |
| IM21.6 | Describe the medico legal aspects of suspected suicidal or homicidal poisoning and demonstrate the correct procedure to write a medico legal report on a suspected poisoning | S | KH | Y | Lecture, Small group discussion, DOAP session | Written/ Viva voce/ Skill assessment | | Forensic Medicine, Pharmacology | |
| IM21.7 | Counsel family members of a patient with suspected poisoning about the clinical and medico legal aspects with empathy | A/C | SH | Y | DOAP session | Skill assessment | | Forensic Medicine, Pharmacology | |
| IM21.8 | Enumerate the indications for psychiatric consultation and describe the precautions to be taken in a patient with suspected suicidal ideation / gesture | K | KH | Y | DOAP session | Skill assessment | | Forensic Medicine, Psychiatry | |
| Topic: Mineral, Fluid Electrolyte and Acid base Disorder Number of competencies: (13) Number of procedures that require certification : (NIL) | | | | | | | | | |
| IM22.1 | Enumerate the causes of hypercalcemia and distinguish the features of PTH vs non PTH mediated hypercalcemia | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| IM22.2 | Describe the aetiology, clinical manifestations, diagnosis and clinical approach to primary hyperparathyroidism | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pathology | General Surgery |
| IM22.3 | Describe the approach to the management of hypercalcemia | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| IM22.4 | Enumerate the components and describe the genetic basis of the multiple endocrine neoplasia syndrome | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM22.5 | Enumerate the causes and describe the clinical features and the correct approach to the diagnosis and management of the patient with hyponatremia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM22.6 | Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hyponatremia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM22.7 | Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hypokalemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM22.8 | Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hyperkalemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM22.9 | Enumerate the causes and describe the clinical and laboratory features of metabolic acidosis | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Physiology | |
| IM22.10 | Enumerate the causes of describe the clinical and laboratory features of metabolic alkalosis | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Physiology | |
| IM22.11 | Enumerate the causes and describe the clinical and laboratory features of respiratory acidosis | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Physiology | |
| IM22.12 | Enumerate the causes and describe the clinical and laboratory features of respiratory alkalosis | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Physiology | |
| IM22.13 | Identify the underlying acid based disorder based on an ABG report and clinical situation | S | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Physiology | |
| Topic: Nutritional and Vitamin Deficiencies | | | | | | | | | |
| | | | Number of competencies: (05) | | | Number of procedures that require certification: (NIL) | | | |
| IM23.1 | Discuss and describe the methods of nutritional assessment in an adult and calculation of caloric requirements during illnesses | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Biochemistry | Pediatrics |
| IM23.2 | Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Biochemistry | Pediatrics |

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| IM23.3 | Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Biochemistry | Pediatrics |
| IM23.4 | Enumerate the indications for enteral and parenteral nutrition in critically ill patients | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Biochemistry | Pediatrics |
| IM23.5 | Counsel and communicate to patients in a simulated environment with illness on an appropriate balanced diet | S | SH | Y | DOAP session | Skill assessment | | | |
| Topic: Geriatrics | | Number of competencies: (22) | | | Number of procedures that require certification : (NIL) | | | | |
| IM24.1 | Describe and discuss the epidemiology, pathogenesis, clinical evolution, presentation and course of common diseases in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM24.2 | Perform multidimensional geriatric assessment that includes medical, psycho-social and functional components | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Psychiatry | |
| IM24.3 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of acute confusional states | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM24.4 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vascular events in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM24.5 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of depression in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| IM24.6 | Describe and discuss the aetiopathogenesis causes, clinical presentation, difference in discussion presentation identification, functional changes, acute care, stabilization, management and rehabilitation of dementia in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | AETCOM |

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| IM24.7 | Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of personality changes in the elderly | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| IM24.8 | Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of osteoporosis in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM24.9 | Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of CVA in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM24.10 | Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Respiratory Medicine |
| IM24.11 | Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Anesthesiology, General Surgery |
| IM24.12 | Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of degenerative joint disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| IM24.13 | Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of falls in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics, Physical Medicine & Rehabilitation |
| IM24.14 | Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of common fractures in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| IM24.15 | Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vision and visual loss in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Ophthalmology |

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| IM24.16 | Describe and discuss the principles of physical and social rehabilitation, functional assessment, role of physiotherapy and occupational therapy in the management of disability in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics, Physical Medicine & Rehabilitation |
| IM24.17 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | ENT |
| IM24.18 | Describe the impact of the demographic changes in ageing on the population | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| IM24.19 | Enumerate and describe the social problems in the elderly including isolation, abuse, change in family structure and their impact on health. | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| IM24.20 | Enumerate and describe social interventions in the care of elderly including domiciliary discussion services, rehabilitation facilities, old age homes and state interventions | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM24.21 | Enumerate and describe ethical issues in the care of the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | AETCOM |
| IM24.22 | Describe and discuss the aetiopathogenesis, clinical presentation, complications, assessment and management of nutritional disorders in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Biochemistry | |
| Topic: Miscellaneous Infections | | Number of competencies: (13) | | | Number of procedures that require certification : (NIL) | | | | |
| IM25.1 | Describe and discuss the response and the influence of host immune status, risk factors and comorbidities on zoonotic diseases (e.g. Leptospirosis, Rabies) and non-febrile infectious disease (e.g. Tetanus) | K | K | Y | Lecture, Small group discussion | Written | | Microbiology, Community Medicine | |
| IM25.2 | Discuss and describe the common causes, pathophysiology and manifestations of these diseases | K | K | Y | Lecture, Small group discussion | Written | | Microbiology, Community Medicine | |
| IM25.3 | Describe and discuss the pathophysiology and manifestations of these diseases | K | KH | Y | Lecture, Small group discussion | Written | | Microbiology | |

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| IM25.4 | Elicit document and present a medical history that helps delineate the aetiology of these diseases that includes the evolution and pattern of symptoms, risk factors, exposure through occupation and travel | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Community Medicine | |
| IM25.5 | Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin, mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen) | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM25.6 | Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes | K | SH | Y | Bedside clinic, DOAP session | Written/ Viva voce | | | |
| IM25.7 | Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, blood biochemistry, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC | K | SH | Y | Bedside clinic, Skill assessment | Skill assessment | | Pathology, Microbiology | |
| IM25.8 | Enumerate the indications for use of newer techniques in the diagnosis of these infections | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| IM25.9 | Assist in the collection of blood and other specimen cultures | S | SH | Y | DOAP session | Log book documentation | | Microbiology | |
| IM25.10 | Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost effective manner | K | KH | Y | Bedside clinic, Skill assessment | Skill assessment | | | |
| IM25.11 | Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis | C | SH | Y | DOAP session | Skill assessment | | Microbiology, Pharmacology | |
| IM25.12 | Communicate to the patient and family the diagnosis and treatment of identified infection | C | SH | Y | DOAP session | Skill assessment | | AETCOM | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM25.13 | Counsel the patient and family on prevention of various infections due to environmental issues | C | SH | Y | DOAP session | Skill assessment | | Community Medicine, General Medicine | |
| Topic: The role of the physician in the community Number of competencies: (49) Number of procedures that require certification : (NIL) | | | | | | | | | |
| IM26.1 | Enumerate and describe professional qualities and roles of a physician | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.2 | Describe and discuss the commitment to lifelong learning as an important part of physician growth | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.3 | Describe and discuss the role of non maleficence as a guiding principle in patient care | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.4 | Describe and discuss the role of autonomy and shared responsibility as a guiding principle in patient care | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.5 | Describe and discuss the role of beneficence of a guiding principle in patient care | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.6 | Describe and discuss the role of a physician in health care system | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.7 | Describe and discuss the role of justice as a guiding principle in patient care | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.8 | Identify discuss medicolegal, socioeconomic and ethical issues as it pertains to organ donation | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.9 | Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as it pertains to rights, equity and justice in access to health care | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.10 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care | K | KH | Y | Small group discussion | Written/ Viva voce | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM26.11 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to patient autonomy, patient rights and shared responsibility in health care | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.12 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to decision making in health care including advanced directives and surrogate decision making | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.13 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to decision making in emergency care including situations where patients do not have the capability or capacity to give consent | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.14 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to research in human subjects | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.15 | Identify, discuss and defend, medicolegal,socio-cultural and ethical issues as they pertain to consent for surgical procedures | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.16 | Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues as it pertains to the physician patient relationship (including fiduciary duty) | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.17 | Identify, discuss physician's role and responsibility to society and the community that she/ he serves | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.18 | Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues in physician- industry relationships | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.19 | Demonstrate ability to work in a team of peers and superiors | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM26.20 | Demonstrate ability to communicate to patients in a patient, respectful, non threatening, non judgemental and empathetic manner | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM26.21 | Demonstrate respect to patient privacy | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM26.22 | Demonstrate ability to maintain confidentiality in patient care | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| IM26.23 | Demonstrate a commitment to continued learning | S | SH | Y | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.24 | Demonstrate respect in relationship with patients, fellow team members, superiors and other health care workers | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Viva voce | | | |
| IM26.25 | Demonstrate responsibility and work ethics while working in the health care team | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Viva voce | | | |
| IM26.26 | Demonstrate ability to maintain required documentation in health care (including correct use of medical records) | S | SH | Y | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.27 | Demonstrate personal grooming that is adequate and appropriate for health care responsibilities | S | SH | Y | Small group discussion | Skill assessment | | | |
| IM26.28 | Demonstrate adequate knowledge and use of information technology that permits appropriate patient care and continued learning | S | SH | Y | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.29 | Communicate diagnostic and therapeutic options to patient and family in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Viva voce | | | |
| IM26.30 | Communicate care options to patient and family with a terminal illness in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Viva voce | | | |
| IM26.31 | Demonstrate awareness of limitations and seeks help and consultations appropriately | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Viva voce | | | |
| IM26.32 | Demonstrate appropriate respect to colleagues in the profession | S | SH | N | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.33 | Demonstrate an understanding of the implications and the appropriate procedures and response to be followed in the event of medical errors | S | SH | N | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.34 | Identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts | S | SH | Y | Small group discussion | Skill assessment/ Viva voce | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| IM26.35 | Demonstrate empathy in patient encounters | S | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Viva voce | | | |
| IM26.36 | Demonstrate ability to balance personal and professional priorities | S | SH | N | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.37 | Demonstrate ability to manage time appropriately | S | SH | Y | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.38 | Demonstrate ability to form and function in appropriate professional networks | S | SH | N | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.39 | Demonstrate ability to pursue and seek career advancement | S | SH | N | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.40 | Demonstrate ability to follow risk management and medical error reduction practices where appropriate | S | SH | N | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.41 | Demonstrate ability to work in a mentoring relationship with junior colleagues | S | SH | N | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.42 | Demonstrate commitment to learning and scholarship | S | SH | N | Small group discussion | Skill assessment/ Viva voce | | | |
| IM26.43 | Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as they pertain to in vitro fertilisation donor insemination and surrogate motherhood | K | KH | N | Small group discussion | Written/ Viva voce | | Obstetrics & Gynaecology | |
| IM26.44 | Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to medical negligence | K | KH | N | Small group discussion | Written/ Viva voce | | | |
| IM26.45 | Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to malpractice | K | KH | N | Small group discussion | Written/ Viva voce | | | |
| IM26.46 | Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues in dealing with impaired physicians | K | KH | N | Small group discussion | Written/ Viva voce | | | |

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| IM26.47 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as they pertain to refusal of care including do not resuscitate and withdrawal of life support | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.48 | Demonstrate altruism | S | SH | Y | Small group discussion | Written/ Viva voce | | | |
| IM26.49 | Administer informed consent and appropriately address patient queries to a patient being enrolled in a research protocol in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Written/ Viva voce | | | |
| Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation | | | | | | | | | |

Integration

Human Anatomy

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| AN5.6 | Describe the concept of anastomoses and collateral circulation with significance of end-arteries | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Physiology |
| AN7.5 | Describe principles of sensory and motor innervation of muscles | K | KH | N | Lecture | Written | | General Medicine | Physiology |
| AN7.6 | Describe concept of loss of innervation of a muscle with its applied anatomy | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | |
| AN20.8 | Identify & demonstrate palpation of femoral, popliteal, post tibial, anti tibial & dorsalis pedis blood vessels in a simulated environment | K/S | SH | Y | Practical, Lecture, Small group discussion, DOAP session | Viva voce/ Skill assessment | | General Medicine | |
| AN20.9 | Identify & demonstrate Palpation of vessels (femoral, popliteal,dorsalis pedis,post tibial), Mid inguinal point, Surface projection of: femoral nerve, Saphenous opening, Sciatic, tibial, common peroneal & deep peroneal nerve, great and small saphenous veins | K/S | SH | Y | Practical, Lecture, Small group discussion, DOAP session | Viva voce/ Skill assessment | | General Medicine, General Surgery | |
| AN22.4 | Describe anatomical basis of ischaemic heart disease | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Physiology |

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|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------|--------------|----------------------------------------------------------|--------------------------------------|---------------------------------------|----------------------------------|---------------------------|
| AN22.7 | Mention the parts, position and arterial supply of the conducting system of heart | K | KH | Y | Lecture | Written | | General Medicine | Physiology |
| AN24.1 | Mention the blood supply, lymphatic drainage and nerve supply of pleura, extent of pleura and describe the pleural recesses and their applied anatomy | K | KH | Y | Practical, Lecture | Written/ Viva voce | | General Medicine | Physiology |
| AN24.2 | Identify side, external features and relations of structures which form root of lung & bronchial tree and their clinical correlate | K/S | SH | Y | Practical, Lecture, Small group discussion, DOAP session | Written/ Viva voce/ Skill assessment | | General Medicine | Physiology |
| AN24.3 | Describe a bronchopulmonary segment | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Physiology |
| AN25.3 | Describe fetal circulation and changes occurring at birth | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Physiology |
| AN25.4 | Describe embryological basis of: 1) atrial septal defect, 2)ventricular septal defect, 3) Fallot's tetralogy & 4) tracheo-oesophageal fistula | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine, Pediatrics | Physiology |
| AN25.5 | Describe developmental basis of congenital anomalies, transposition of great vessels, dextrocardia, patent ductus arteriosus and coarctation of aorta | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine, Pediatrics | Physiology |
| AN25.7 | Identify structures seen on a plain x-ray chest (PA view) | K/S | SH | Y | Practical, DOAP session | Written/ Viva voce | | Radiodiagnosis, General Medicine | |
| AN25.8 | Identify and describe in brief a barium swallow | K/S | SH | N | Practical, DOAP session | Written/ Viva voce | | Radiodiagnosis, General Medicine | |
| AN25.9 | Demonstrate surface marking of lines of pleural reflection, Lung borders and fissures, Trachea, Heart borders, Apex beat & Surface projection of valves of heart | K/S | SH | Y | Practical | Viva voce/ Skill assessment | | General Medicine, Pediatrics | Physiology |
| AN28.7 | Explain the anatomical basis of facial nerve palsy | K | KH | Y | Lecture | Written | | General Medicine | |
| AN50.3 | Describe lumbar puncture (site, direction of the needle, structures pierced during the lumbar puncture) | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | |

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| AN56.1 | Describe & identify various layers of meninges with its extent & modifications | K/S | SH | Y | Practical, Lecture, Small group discussion, DOAP session | Written/ Viva voce/ Skill assessment | | General Medicine | |
| AN56.2 | Describe circulation of CSF with its applied anatomy | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Physiology |
| AN57.4 | Enumerate ascending & descending tracts at mid thoracic level of spinal cord | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Physiology |
| AN57.5 | Describe anatomical basis of syringomyelia | K | KH | N | Lecture | Written | | General Medicine | Physiology |
| AN58.4 | Describe anatomical basis & effects of medial & lateral medullary syndrome | K | KH | N | Lecture | Written | | General Medicine | Physiology |
| AN60.3 | Describe anatomical basis of cerebellar dysfunction | K | KH | N | Lecture | Written | | General Medicine | Physiology |
| AN61.3 | Describe anatomical basis & effects of Benedict's and Weber's syndrome | K | KH | N | Lecture | Written | | General Medicine | Physiology |
| AN62.2 | Describe & demonstrate surfaces, sulci, gyri, poles, & functional areas of cerebral hemisphere | K/S | SH | Y | Practical, Lecture, Small group discussion, DOAP session | Written/ Viva voce/ Skill assessment | | General Medicine | Physiology |
| AN62.3 | Describe the white matter of cerebrum | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Physiology |
| AN62.5 | Describe boundaries, parts, gross relations, major nuclei and connections of dorsal thalamus, hypothalamus, epithalamus, metathalamus and subthalamus | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Physiology |
| AN62.6 | Describe & identify formation, branches & major areas of distribution of circle of Willis | K/S | SH | Y | Practical, Lecture, Small group discussion, DOAP session | Written/ Viva voce/ Skill assessment | | General Medicine | Physiology |
| AN74.1 | Describe the various modes of inheritance with examples | K | KH | Y | Lecture | Written | | General Medicine, Pediatrics | |

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| AN74.2 | Draw pedigree charts for the various types of inheritance & give examples of diseases of each mode of inheritance | K | KH | Y | Lecture | Written | | General Medicine, Pediatrics | |
| AN74.3 | Describe multifactorial inheritance with examples | K | KH | Y | Lecture | Written | | General Medicine | |
| AN74.4 | Describe the genetic basis & clinical features of Achondroplasia, Cystic Fibrosis, Vitamin D resistant rickets, Hemophilia, Duchene's muscular dystrophy & Sickle cell anaemia | K | KH | N | Lecture | Written | | General Medicine, Pediatrics | |
| Physiology | | | | | | | | | |
| PY3.12 | Explain the gradation of muscular activity | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PY3.13 | Describe muscular dystrophy: myopathies | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Human Anatomy |
| PY4.9 | Discuss the physiology aspects of: peptic ulcer, gastro-oesophageal reflux disease, vomiting, diarrhoea, constipation, Adynamic ileus, Hirschsprung's disease | S | SH | Y | Lecture, Small group discussion | Practical/ Viva voce | | General Medicine | Biochemistry |
| PY5.5 | Describe the physiology of electrocardiogram (E.C.G), its applications and the cardiac axis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PY5.6 | Describe abnormal ECG, arrhythmias, heart block and myocardial Infarction | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Human Anatomy |
| PY5.10 | Describe & discuss regional circulation including microcirculation, lymphatic circulation, coronary, cerebral, capillary, skin, foetal, pulmonary and splanchnic circulation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PY5.13 | Record and interpret normal ECG in a volunteer or simulated environment | S | SH | Y | DOAP sessions | Practical/OSPE/Viva voce | | General Medicine | |

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| PY5.16 | Record Arterial pulse tracing using finger plethysmography in a volunteer or simulated environment | S | SH | N | DOAP sessions, Computer assisted learning methods | Practical/OSPE/Viva voce | | General Medicine | |
| PY7.7 | Describe artificial kidney, dialysis and renal transplantation | K | KH | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine | |
| PY11.14 | Demonstrate Basic Life Support in a simulated environment | S | SH | Y | DOAP sessions | OSCE | | General Medicine Anaesthesiology | |
| Biochemistry | | | | | | | | | |
| BI2.4 | Describe and discuss enzyme inhibitors as poisons and drugs, therapeutic enzymes and the clinical utility of various serum enzymes as markers of pathological conditions | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, General Medicine | |
| BI2.5 | Describe and discuss the clinical utility of various serum enzymes as markers of pathological conditions | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, General Medicine | |
| BI2.6 | Discuss use of enzymes in laboratory investigations (Enzyme-based assays) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, General Medicine | |
| BI2.7 | Interpret laboratory results of enzyme activities & describe the clinical utility of various enzymes as markers of pathological conditions | K | KH | Y | Lecture, Small group discussion, DOAP sessions | Written/ Viva voce | | Pathology, General Medicine | |
| BI3.4 | Define and differentiate the pathways of carbohydrate metabolism (glycolysis, gluconeogenesis, glycogen metabolism, HMP shunt) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI3.5 | Describe and discuss the regulation, functions and integration of carbohydrate along with associated diseases/disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI3.8 | Discuss and interpret laboratory results of analytes associated with metabolism of carbohydrates | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, General Medicine | |
| BI3.9 | Discuss the mechanism and significance of blood glucose regulation in health and disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |

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| BI3.10 | Interpret the results of blood glucose levels and other laboratory investigations related to disorders of carbohydrate metabolism | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI4.1 | Describe and discuss main classes of lipids (Essential/non-essential fatty acids, cholesterol and hormonal steroids, triglycerides, major phospholipids and sphingolipids) relevant to human system and their major functions | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI4.2 | Describe the processes involved in digestion and absorption of dietary lipids and also the key features of their metabolism | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI4.3 | Explain the regulation of lipoprotein metabolism & associated disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI4.4 | Describe the structure and functions of lipoproteins, their functions, interrelations & relations with atherosclerosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI4.5 | Interpret laboratory results of analytes associated with metabolism of lipids | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI4.6 | Describe the therapeutic uses of prostaglandins and inhibitors of eicosanoid synthesis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI4.7 | Interpret laboratory results of analytes associated with metabolism of lipids | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI5.2 | Describe and discuss functions of proteins and structure-function relationships in relevant areas e.g., hemoglobin and selected hemoglobinopathies | K | KH | Y | Lecture, Small group discussion | Viva voce/ Skill assessment | | Pathology, General Medicine | Physiology |
| BI5.5 | Interpret laboratory results of analytes associated with metabolism of proteins | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI6.1 | Discuss the metabolic processes that take place in specific organs in the body in the fed and fasting states | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI6.4 | Discuss the laboratory results of analytes associated with gout & Lesch Nyhan syndrome | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |

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| BI6.5 | Describe the biochemical role of vitamins in the body and explain the manifestations of their deficiency | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI6.7 | Describe the processes involved in maintenance of normal pH, water & electrolyte balance of body fluids and the derangements associated with these | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Physiology |
| BI6.8 | Discuss and interpret results of Arterial Blood Gas (ABG) analysis in various disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI6.9 | Describe the functions of various minerals in the body, their metabolism and homeostasis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Physiology |
| BI6.10 | Enumerate and describe the disorders associated with mineral metabolism | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI6.11 | Describe the functions of haem in the body and describe the processes involved in its metabolism and describe porphyrin metabolism | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, General Medicine | Physiology |
| BI6.12 | Describe the major types of haemoglobin and its derivatives found in the body and their physiological/ pathological relevance | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, General Medicine | Physiology |
| BI6.13 | Describe the functions of the kidney, liver, thyroid and adrenal glands | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, General Medicine | Physiology, Human Anatomy |
| BI6.14 | Describe the tests that are commonly done in clinical practice to assess the functions of these organs (kidney, liver, thyroid and adrenal glands) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, General Medicine | Physiology, Human Anatomy |
| BI6.15 | Describe the abnormalities of kidney, liver, thyroid and adrenal glands. | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, General Medicine | Physiology, Human Anatomy |
| BI7.4 | Describe applications of recombinant DNA technology, PCR in the diagnosis and treatment of diseases with genetic basis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics, General Medicine | |

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| BI7.7 | Describe the role of oxidative stress in the pathogenesis of conditions such as cancer, complications of diabetes mellitus and atherosclerosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Pathology | |
| BI8.1 | Discuss the importance of various dietary components and explain importance of dietary fibre | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Pediatrics, Pathology | |
| BI8.2 | Describe the types and causes of protein energy malnutrition and its effects | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Pediatrics, Pathology | |
| BI8.3 | Provide dietary advice for optimal health in childhood and adult, in disease conditions like diabetes mellitus, coronary artery disease and in pregnancy. | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI8.4 | Describe the causes (including dietary habits), effects and health risks associated with being overweight/ obesity | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Pathology | |
| BI8.5 | Summarize the nutritional importance of commonly used items of food including fruits and vegetables (macro-molecules & its importance) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, General Medicine, Pediatrics | |
| BI9.2 | Discuss the involvement of ECM components in health and disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI10.4 | Describe & discuss innate and adaptive immune responses, self/non-self recognition and the central role of T-helper cells in immune responses | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Pathology | Physiology |
| BI11.4 | Perform urine analysis to estimate and determine normal and abnormal constituents | S | P | Y | Lecture, Small group discussion | Skill assessment | 1 | General Medicine | Physiology |
| BI11.5 | Describe screening of urine for inborn errors & describe the use of paper chromatography | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |

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| BI11.17 | Explain the basis and rationale of biochemical tests done in the following conditions: - diabetes mellitus, - dyslipidemia, - myocardial infarction, - renal failure, gout, - proteinuria, - nephrotic syndrome, - edema, - jaundice, - liver diseases, pancreatitis, disorders of acid- base balance, thyroid disorders. | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine Pathology | |
| BI11.22 | Calculate albumin: globulin (AG) ratio and creatinine clearance | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI11.23 | Calculate energy content of different food Items, identify food items with high and low glycemic index and explain the importance of these in the diet | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| BI11.24 | Enumerate advantages and/or disadvantages of use of unsaturated, saturated and trans fats in food. | K | KH | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine | |
| BI1.26 | Calculate albumin: globulin (AG) ratio and creatinine clearance | S | SH | Y | Lecture, Small group discussion | Skill assessment | | General Medicine | |
| BI1.27 | Calculate energy content of different food Items, identify food items with high and low glycemic index and explain the importance of these in the diet | S | SH | N | Lecture, Small group discussion | Skill assessment | | General Medicine | |
| BI1.28 | Enumerate advantages and/or disadvantages of use of unsaturated, saturated and trans fats in food | K | KH | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine | |
| Pathology | | | | | | | | | |
| PA6.1 | Define and describe edema its types pathogenesis and clinical correlations | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA9.4 | Define autoimmunity. Enumerate autoimmune disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |

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| PA9.5 | Define and describe the pathogenesis of systemic lupus erythematosus | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA9.6 | Define and describe the pathogenesis and pathology of HIV and AIDS | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA9.7 | Define and describe the pathogenesis of other common autoimmune diseases | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA10.1 | Define and describe the pathogenesis and pathology of malaria | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA10.2 | Define and describe the pathogenesis and pathology of cysticercosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA10.3 | Define and describe the pathogenesis and pathology of leprosy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA10.4 | Define and describe the pathogenesis and pathology of common bacterial, viral, protozoal and helminthic diseases | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA12.3 | Describe the pathogenesis of obesity and its consequences | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA13.1 | Describe hematopoiesis and extramedullary hematopoiesis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA13.2 | Describe the role of anticoagulants in hematology | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA13.3 | Define and classify anemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA13.4 | Enumerate and describe the investigation of anemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA13.5 | Perform, Identify and describe the peripheral blood picture in anemia | S | SH | Y | DOAP session | Skill assessment | | General Medicine | |
| PA14.2 | Describe the etiology, investigations and differential diagnosis of microcytic hypochromic anemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |

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| PA14.3 | Identify and describe the peripheral smear in microcytic anemia | S | SH | Y | DOAP session | Skill assessment | | General Medicine | |
| PA15.1 | Describe the metabolism of Vitamin B12 and the etiology and pathogenesis of B12 deficiency | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, General Medicine | |
| PA15.2 | Describe the laboratory investigations of macrocytic anemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA15.4 | Enumerate the differences and describe the etiology and distinguishing features of megaloblastic and non-megaloblastic macrocytic anemia | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA16.1 | Define and classify hemolytic anemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, General Medicine | |
| PA16.2 | Describe the pathogenesis and clinical features and hematologic indices of hemolytic anemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, General Medicine | |
| PA16.3 | Describe the pathogenesis, features, hematologic indices and peripheral blood picture of sickle cell anemia and thalassemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, General Medicine | |
| PA16.4 | Describe the etiology pathogenesis, hematologic indices and peripheral blood picture of Acquired hemolytic anemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, General Medicine | |
| PA16.5 | Describe indices and peripheral blood smear | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA 17.1 | Enumerate the etiology, pathogenesis and findings in aplastic anemia | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA17.2 | Enumerate the indications and describe the findings in bone marrow aspiration and biopsy | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA19.6 | Enumerate and differentiate the causes of splenomegaly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Surgery, General Medicine | |
| PA21.3 | Differentiate platelet from clotting disorders based on the clinical and hematologic features | S | SH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |

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| PA21.4 | Define and describe disseminated intravascular coagulation, its laboratory findings and diagnosis of disseminated intravascular coagulation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA21.5 | Define and describe disseminated intravascular coagulation its laboratory findings and diagnosis of Vitamin K deficiency | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA22.4 | Enumerate blood components and describe their clinical uses | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Surgery, General Medicine | |
| PA22.6 | Describe transfusion reactions and enumerate the steps in the investigation of a transfusion reaction | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA24.2 | Describe the etiology, pathogenesis, pathology, microbiology, clinical and microscopic features of peptic ulcer disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA24.3 | Describe and identify the microscopic features of peptic ulcer | S | SH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA25.1 | Describe bilirubin metabolism, enumerate the etiology and pathogenesis of jaundice, distinguish between direct and indirect hyperbilirubinemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, General Medicine | |
| PA25.2 | Describe the pathophysiology and pathologic changes seen in hepatic failure and their clinical manifestations, complications and consequences | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, General Surgery | |
| PA25.3 | Describe the etiology and pathogenesis of viral and toxic hepatitis: distinguish the causes of hepatitis based on the clinical and laboratory features. Describe the pathology, complications and consequences of hepatitis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA25.4 | Describe the pathophysiology, pathology and progression of alcoholic liver disease including cirrhosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, General Surgery | |
| PA25.5 | Describe the etiology, pathogenesis and complications of portal hypertension | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, General Surgery | |

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| PA25.6 | Interpret a liver function and viral hepatitis serology panel. Distinguish obstructive from non obstructive jaundice based on clinical features and liver function tests | S | P | Y | DOAP session | Skill assessment | 1 | General Medicine | |
| PA26.1 | Define and describe the etiology, types, pathogenesis, stages, morphology and complications of pneumonia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA26.2 | Describe the etiology, gross and microscopic appearance and complications of lung abscess | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA26.3 | Define and describe the etiology, types, pathogenesis, stages, morphology and complications and evaluation of Obstructive airway disease (OAD) and bronchiectasis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, General Medicine | Microbiology |
| PA26.4 | Define and describe the etiology, types, pathogenesis, stages, morphology microscopic appearance and complications of tuberculosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA26.5 | Define and describe the etiology, types, exposure, environmental influence, pathogenesis, stages, morphology, microscopic appearance and complications of Occupational lung disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Community Medicine | |
| PA26.6 | Define and describe the etiology, types, exposure, genetics environmental influence, pathogenesis, stages, morphology, microscopic appearance,metastases and complications of tumors of the lung and pleura | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA26.7 | Define and describe the etiology, types, exposure, genetics environmental influence, pathogenesis, morphology, microscopic appearance and complications of mesothelioma | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Community Medicine | |
| PA27.1 | Distinguish arteriosclerosis from atherosclerosis. Describe the pathogenesis and pathology of various causes and types of arteriosclerosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA27.2 | Describe the etiology, dynamics, pathology types and complications of aneurysms including aortic aneurysms | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| PA27.3 | Describe the etiology, types, stages pathophysiology pathology and complications of heart failure | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Physiology | |
| PA27.4 | Describe the etiology, pathophysiology, pathology, gross and microscopic, features, criteria and complications of rheumatic fever | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA27.5 | Describe the epidemiology, risk factors, etiology, pathophysiology, pathology, presentations, gross and microscopic, features, diagnostic tests and complications of ischemic heart disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA27.6 | Describe the etiology, pathophysiology, pathology, gross and microscopic, features diagnosis and complications of infective endocarditis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA27.7 | Describe the etiology, pathophysiology, pathology, gross and microscopic, features diagnosis and complications of pericarditis and pericardial effusion | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA27.8 | Interpret abnormalities in cardiac function testing in acute coronary syndromes | S | SH | Y | DOAP session | Skill Assessment | | Physiology, General Medicine | |
| PA27.9 | Classify and describe the etiology, types, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of cardiomyopathies | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Physiology | |
| PA27.10 | Describe the etiology, pathophysiology, pathology features and complications of syphilis on the cardiovascular system | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |
| PA28.3 | Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory urinary findings, progression and complications of acute renal failure | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA28.4 | Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory urinary findings progression and complications of chronic renal failure | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |

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| PA28.5 | Define and classify glomerular diseases. Enumerate and describe the etiology, pathogenesis, mechanisms of glomerular injury, pathology, distinguishing features and clinical manifestations of glomerulonephritis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, General Medicine | |
| PA28.6 | Define and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, progression and complications of IgA nephropathy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA28.7 | Enumerate and describe the findings in glomerular manifestations of systemic disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA28.8 | Enumerate and classify diseases affecting the tubular interstitium | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA28.9 | Define and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, progression and complications of acute tubular necrosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA28.11 | Define classify and describe the etiology, pathogenesis pathology, laboratory, urinary findings, distinguishing features, progression and complications of vascular disease of the kidney | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA28.12 | Define classify and describe the genetics, inheritance etiology, pathogenesis, pathology, laboratory, urinary findings, distinguishing features, progression and complications of cystic disease of the kidney | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Pediatrics | |
| PA28.15 | Describe the etiology, genetics, pathogenesis, pathology, presenting features and progression of thrombotic angiopathies | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA31.4 | Enumerate and describe the etiology, hormonal dependency and pathogenesis of gynecomastia | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics, General Medicine | |

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| PA32.1 | Enumerate, classify and describe the etiology, pathogenesis, pathology and iodine dependency of thyroid swellings | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Human Anatomy, Physiology, General Medicine, General Surgery | |
| PA32.2 | Describe the etiology, cause, iodine dependency, pathogenesis, manifestations, laboratory and imaging features and course of thyrotoxicosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, General Medicine | |
| PA32.3 | Describe the etiology, pathogenesis, manifestations, laboratory and imaging features and course of thyrotoxicosis/ hypothyroidism | K | KH | Y | Lecture, Small group | Written/ Viva voce | | Physiology, General Medicine | |
| PA32.4 | Classify and describe the epidemiology, etiology, pathogenesis, pathology, clinical laboratory features, complications and progression of diabetes mellitus | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, General Medicine | |
| PA32.5 | Describe the etiology, genetics, pathogenesis, manifestations, laboratory and morphologic features of hyperparathyroidism | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Physiology, General Medicine | |
| PA32.7 | Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications of adrenal insufficiency | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Physiology, General Medicine | |
| PA32.8 | Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications of Cushing's syndrome | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Physiology, General Medicine | |
| PA32.9 | Describe the etiology, pathogenesis, manifestations, laboratory and morphologic features of adrenal neoplasms | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Human Anatomy, Physiology, General Medicine, General Surgery | |
| PA33.5 | Classify and describe the etiology, immunology, pathogenesis, manifestations, radiologic and laboratory features, diagnostic criteria and complications of rheumatoid arthritis | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PA35.1 | Describe the etiology, types and pathogenesis, differentiating factors, CSF findings in meningitis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Microbiology |

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| PA35.3 | Identify the etiology of meningitis based on given CSF parameters | S | P | Y | DOAP session | Skill Assessment | 1 | General Medicine | Microbiology |
| Microbiology | | | | | | | | | |
| MI2.1 | Describe the etiologic agents in rheumatic fever and their diagnosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pathology |
| MI2.2 | Describe the classification, etio-pathogenesis, clinical features and discuss the diagnostic modalities of Infective endocarditis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pathology |
| MI2.3 | Identify the microbial agents causing Rheumatic heart disease & infective Endocarditis | S | SH | Y | DOAP session | Skill assessment | | General Medicine | Pathology |
| MI2.4 | List the common microbial agents causing anemia. Describe the morphology, mode of infection and discuss the pathogenesis, clinical course, diagnosis and prevention and treatment of the common microbial agents causing Anemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pathology |
| MI2.5 | Describe the etio-pathogenesis and discuss the clinical evolution and the laboratory diagnosis of kala-azar, malaria, filariasis and other common parasites prevalent in India | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pathology |
| MI2.6 | Identify the causative agent of malaria and filariasis | K/S | SH | Y | DOAP session | Skill assessment | | General Medicine | |
| MI2.7 | Describe the epidemiology, the etio- pathogenesis evolution complications, opportunistic infections, diagnosis prevention and the principles of management of HIV | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pathology |
| MI3.1 | Enumerate the microbial agents causing diarrhea and dysentery. Describe the epidemiology, morphology, pathogenesis, clinical features, and diagnostic modalities of these agents | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Paediatrics | Pathology |
| MI3.2 | Identify the common etiologic agents of diarrhea and dysentery | S | SH | Y | DOAP session | Skill assessment | | General Medicine, Paediatrics | |

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| MI3.3 | Describe the enteric fever pathogens and discuss the evolution of the clinical course, the laboratory diagnosis of the diseases caused by them | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pharmacology, Pathology |
| MI3.4 | Identify the different modalities for diagnosis of enteric fever. Choose the appropriate test related to the duration of illness | S | KH | Y | DOAP session | Skill assessment | | General Medicine | Pathology |
| MI3.5 | Enumerate the causative agents of food poisoning and discuss the pathogenesis, clinical course and laboratory diagnosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pharmacology |
| MI3.6 | Describe the etio-pathogenesis of Acid peptic disease (APD) and the clinical course. Discuss the diagnosis and management of the causative agent of APD | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pharmacology, Pathology |
| MI3.7 | Describe the epidemiology, the etio- pathogenesis and discuss the viral markers in the evolution of Viral hepatitis. Discuss the modalities in the diagnosis, and prevention of viral hepatitis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pathology |
| MI3.8 | Choose the appropriate laboratory test in the diagnosis of viral hepatitis | K | KH | Y | Small group discussion, Case discussion | Written/ Viva voce/ OSPE | | General Medicine | Pathology |
| MI4.1 | Enumerate the microbial agents causing anaerobic infections. Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of anaerobic infections | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | |
| MI5.1 | Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of meningitis | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine, Paediatrics | Pathology |
| MI5.2 | Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of encephalitis | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine, Paediatrics | Pathology |
| MI5.3 | Identify the microbial agents causing meningitis | S | SH | Y | DOAP session | Skill assessment | | General Medicine, Paediatrics | |
| MI6.1 | Describe the etio-pathogenesis, laboratory diagnosis and prevention of Infections of upper and lower respiratory tract | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |

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| MI6.2 | Identify the common etiologic agents of upper respiratory tract infections (Gram Stain) | S | P | Y | DOAP session | Skill assessment | 3 | General Medicine | |
| MI6.3 | Identify the common etiologic agents of lower respiratory tract infections (Gram Stain & Acid fast stain). | S | P | Y | DOAP session | Skill assessment | 3 | General Medicine | |
| MI7.3 | Describe the etio-pathogenesis, clinical features, the appropriate method for specimen collection, and discuss the laboratory diagnosis of Urinary tract infections | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| MI8.1 | Enumerate the microbial agents and their vectors causing Zoonotic diseases. Describe the morphology, mode of transmission, pathogenesis and discuss the clinical course, laboratory diagnosis and prevention | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| MI8.2 | Describe the etio-pathogenesis of opportunistic infections (OI) and discuss the factors contributing to the occurrence of OI, and the laboratory diagnosis | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Pathology |
| MI8.3 | Describe the role of oncogenic viruses in the evolution of virus associated malignancy | K | KH | Y | Lecture | Written | | General Medicine | Pathology |
| MI8.4 | Describe the etiologic agents of emerging Infectious diseases. Discuss the clinical course and diagnosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Community Medicine | |
| MI8.5 | Define Healthcare Associated Infections (HAI) and enumerate it types. Discuss the factors that contribute to the development of HAI and the methods for prevention | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Community Medicine | |
| Pharmacology | | | | | | | | | |
| PH1.12 | Calculate the dosage of drugs using appropriate formulae for an individual patient, including children, elderly and patient with renal dysfunction | K/S | SH | Y | Lecture, practical | Written/ Viva voce | | Pediatrics, General Medicine | |

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| PH1.16 | Describe mechanism/s of action, types, doses, side effects, indications and contraindications of the drugs which act by modulating autacoids, including: Anti-histaminics, 5-HT modulating drugs, NSAIDs, Drugs for gout, Anti-rheumatic drugs, drugs for migraine | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | |
| PH1.21 | Describe the symptoms and management of methanol and ethanol poisonings | K | KH | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine | |
| PH1.25 | Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of the drugs acting on blood, like anticoagulants, antiplatelets, fibrinolytics, plasma expanders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, General Medicine | |
| PH1.26 | Describe mechanisms of action, types, doses, side effects, indications and contraindications of the drugs modulating the renin angiotensin and aldosterone system | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, General Medicine | |
| PH1.27 | Describe the mechanisms of action, types, doses, side effects, indications and contraindications of Antihypertensive drugs and drugs used in shock | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PH1.28 | Describe the mechanisms of action, types, doses, side effects, indications and contraindications of the drugs used in ischemic heart disease (stable, unstable angina and myocardial infarction), peripheral vascular disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pathology |
| PH1.29 | Describe the mechanisms of action, types, doses, side effects, indications and contraindications of the drugs used in congestive heart failure | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | Pathology |
| PH1.30 | Describe the mechanisms of action, types, doses, side effects, indications and contraindications of the drugs used as Antiarrhythmics | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PH1.31 | Describe the mechanisms of action, types, doses, side effects, indications and contraindications of the drugs used in the management of dyslipidemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |

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| PH1.34 | Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of the drugs used as below: 1. Acid-peptic disease and GERD 2. Antiemetics and prokinetics 3. Antidiarrhoeals 4. Laxatives 5. Inflammatory Bowel Disease 6. Irritable Bowel Disorders, biliary and pancreatic diseases | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| PH1.35 | Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of drugs used in hematological disorders like: 1. Drugs used in anemias 2. Colony Stimulating factors | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine, Physiology | Pharmacology |
| PH1.36 | Describe the mechanism of action, types, doses, side effects, indications and contraindications of drugs used in endocrine disorders (diabetes mellitus, thyroid disorders and osteoporosis) | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Pathology, Pharmacology |
| PH1.43 | Describe and discuss the rational use of antimicrobials including antibiotic stewardship program | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine Pediatrics | Microbiology, Pharmacology |
| PH1.47 | Describe the mechanisms of action, types, doses, side effects, indications and contraindications of the drugs used in malaria, KALA-AZAR, amebiasis and intestinal helminthiasis | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | Microbiology |
| PH1.52 | Describe management of common poisoning, insecticides, common sting and bites | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine | |
| PH2.4 | Demonstrate the correct method of calculation of drug dosage in patients including those used in special situations | S | SH | Y | DOAP sessions | Skills assessment | | Pediatrics, Pharmacology | |
| PH3.1 | Write a rational, correct and legible generic prescription for a given condition and communicate the same to the patient | S/C | P | Y | Skill station | Skill station | 5 | General Medicine | |
| PH3.3 | Perform a critical evaluation of the drug promotional literature | S | P | Y | Skill Lab | Maintenance of log book/ Skill station | 3 | General Medicine | |

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| PH3.5 | To prepare and explain a list of P-drugs for a given case/condition | S | P | Y | Skill station | Maintenance of log book | 3 | General Medicine | |
| PH5.1 | Communicate with the patient with empathy and ethics on all aspects of drug use | A/C | SH | Y | Small group discussion | Skill station | | General Medicine | |
| PH5.4 | Explain to the patient the relationship between cost of treatment and patient compliance | A/C | SH | Y | Small group discussion | Short note/ Viva voce | | General Medicine | |
| Community Medicine | | | | | | | | | |
| CM3.1 | Describe the health hazards of air, water, noise, radiation and pollution | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, ENT | |
| CM3.3 | Describe the aetiology and basis of water borne diseases/jaundice/hepatitis/ diarrheal diseases | K | KH | Y | Lecture, Small group discussion, DOAP session | Written/ Viva voce | | Microbiology, General Medicine, Pediatrics | |
| CM5.1 | Describe the common sources of various nutrients and special nutritional requirements according to age, sex, activity, physiological conditions | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Pediatrics | |
| CM5.2 | Describe and demonstrate the correct method of performing a nutritional assessment of individuals, families and the community by using the appropriate method | S | SH | Y | DOAP sessions | Skill Assessment | | General Medicine, Pediatrics | |
| CM5.3 | Define and describe common nutrition related health disorders (including macro-PEM, Micro-iron, Zn, iodine, Vit. A), their control and management | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Pediatrics | |
| CM5.4 | Plan and recommend a suitable diet for the individuals and families based on local availability of foods and economic status, etc in a simulated environment | S | SH | Y | DOAP sessions | Skill Assessment | | General Medicine, Pediatrics | |
| CM5.5 | Describe the methods of nutritional surveillance, principles of nutritional education and rehabilitation in the context of socio-cultural factors | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | General Medicine, Pediatrics | |

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| CM6.1 | Formulate a research question for a study | K | KH | Y | Small group discussion, Lecture, DOAP sessions | Written/ Viva voce/ Skill Assessment | | General Medicine, Pediatrics | |
| CM6.2 | Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data | S | SH | Y | Small group discussion, Lecture, DOAP sessions | Written/ Viva voce/ Skill Assessment | | General Medicine, Pediatrics | |
| CM6.3 | Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs | S | SH | Y | Small group discussion, Lecture, DOAP sessions | Written/ Viva voce/ Skill Assessment | | General Medicine, Pediatrics | |
| CM6.4 | Enumerate, discuss and demonstrate common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion | S | SH | Y | Small group discussion, Lecture, DOAP sessions | Written/ Viva voce/ Skill Assessment | | General Medicine, Pediatrics | |
| CM7.1 | Define Epidemiology and describe and enumerate the principles, concepts and uses | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | General Medicine | |
| CM7.2 | Enumerate, describe and discuss the modes of transmission and measures for prevention and control of communicable and non-communicable diseases | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | General Medicine | |
| CM7.3 | Enumerate, describe and discuss the sources of epidemiological data | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | General Medicine | |
| CM7.4 | Define, calculate and interpret morbidity and mortality indicators based on given set of data | S | SH | Y | Small group discussion, DOAP sessions | Written/ Skill assessment | | General Medicine | |
| CM7.5 | Enumerate, define, describe and discuss epidemiological study designs. | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | General Medicine | |
| CM7.6 | Enumerate and evaluate the need of screening tests | S | SH | Y | Small group discussion, DOAP sessions | Written/ Skill assessment | | General Medicine | |
| CM7.7 | Describe and demonstrate the steps in the Investigation of an epidemic of communicable disease and describe the principles of control measures. | S | SH | Y | Small group discussion, DOAP sessions | Written/ Skill assessment | | General Medicine | Microbiology |

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| CM7.8 | Describe the principles of association, causation and biases in epidemiological studies | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | General Medicine | |
| CM8.1 | Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | General Medicine, Pediatrics | Microbiology Pathology |
| CM8.2 | Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for Non Communicable diseases (diabetes, Hypertension, Stroke, obesity and cancer etc.) | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | General Medicine | |
| CM8.3 | Enumerate and describe disease-specific National Health Programs including their prevention and treatment of a case | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | General Medicine, Pediatrics | |
| CM8.4 | Describe the principles and enumerate the measures to control a disease epidemic | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | General Medicine, Pediatrics | |
| CM8.5 | Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | General Medicine, Pediatrics | |
| CM12.1 | Define and describe the concept of Geriatric services | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| CM12.2 | Describe health problems of aged population | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| CM12.3 | Describe the prevention of health problems of aged population | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| CM12.4 | Describe National program for elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| CM13.1 | Define and describe the concept of Disaster management | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Surgery, General Medicine | |

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| CM13.2 | Describe disaster management cycle | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Surgery, General Medicine | |
| CM13.3 | Describe man made disasters in the world and in India | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | General Surgery, General Medicine | |
| CM13.4 | Describe the details of the National Disaster management Authority | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | General Surgery, General Medicine | |
| Forensic Medicine & Toxicology | | | | | | | | | |
| FM1.9 | Describe the importance of documentation in medical practice in regard to medicolegal examinations, Medical Certificates and medicolegal reports especially – maintenance of patient case records, discharge summary, prescribed registers to be maintained in Health Centres. -- maintenance of medico-legal register like accident register. - documents of issuance of wound certificate - documents of issuance of drunkenness certificate. - documents of issuance of sickness and fitness certificate. - documents for issuance of death certificate. - documents of Medical Certification of Cause of Death - Form Number 4 and 4A - documents for estimation of age by physical, dental and radiological examination and issuance of certificate | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Radiodiagnosis, General Surgery, General Medicine, Pediatrics | |
| FM2.34 | Demonstrate ability to use local resources whenever required like in mass disaster situations | A & C | KH | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine, AETCOM | |
| FM3.22 | Define and discuss impotence, sterility, frigidity, sexual dysfunction, premature ejaculation. Discuss the causes of impotence and sterility in male and female | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Obstetrics & Gynaecology, General Medicine | |
| FM5.5 | Describe & discuss Delirium tremens | K | K/KH | Y | Lecture, Small group discussion | Written/Viva voce | | Psychiatry, General Medicine | |
| FM8.6 | Describe the general symptoms, principles of diagnosis and management of common poisons encountered in India. | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic, DOAP session | Written/Viva voce/OSCE | | Pharmacology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| FM8.7 | Describe simple Bedside clinic tests to detect poison/drug in a patient's body fluids | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic, DOAP session | Written/Viva voce/OSCE | | Pharmacology, General Medicine | |
| FM8.8 | Describe basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic, DOAP session | Written/ Viva voce/ OSCE | | Pharmacology, General Medicine | |
| FM9.1 | Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to: Caustics Inorganic – sulphuric, nitric, and hydrochloric acids Organic-Carbolic Acid (phenol), Oxalic and acetylsalicylic acids . | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session | Written/ Viva voce/ OSCE | | Pharmacology, General Medicine | |
| FM9.2 | Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Phosphorus, Iodine, Barium | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session | Written/ Viva voce/ OSCE | | Pharmacology, General Medicine | |
| FM9.3 | Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Arsenic, lead, mercury, copper, iron, cadmium and thallium | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session | Written/ Viva voce/ OSCE | | Pharmacology, General Medicine | |
| FM9.4 | Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Ethanol, methanol, ethylene glycol | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session | Written/ Viva voce/ OSCE | | Pharmacology, General Medicine | |
| FM9.5 | Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Organophosphates, Carbamates, Organochlorines, Pyrethroids, Paraquat, Aluminium and Zinc phosphide | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session | Written/ Viva voce/ OSCE | | Pharmacology, General Medicine | |

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| FM9.6 | Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Ammonia, carbon monoxide, hydrogen cyanide & derivatives, methyl isocyanate, tear (riot control) gases | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session | Written/ Viva voce/ OSCE | | Pharmacology, General Medicine | |
| FM10.1 | Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to: i. Antipyretics – Paracetamol, Salicylates ii. Anti-Infectives (Common antibiotics – an overview) iii. Neuropsychotoxicology Barbiturates, benzodiazepines, phenytoin, lithium, haloperidol, neuroleptics, tricyclics iv. Narcotic Analgesics, Anaesthetics, and Muscle Relaxants v. Cardiovascular Toxicology Cardiotoxic plants – oleander, odollam, aconite, digitalis vi. Gastro-Intestinal and Endocrinal Drugs – Insulin | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session | Written/ Viva voce/ OSCE | | Pharmacology, General Medicine | |
| FM11.1 | Describe features and management of Snake bite, scorpion sting, bee and wasp sting and spider bite | K | K/KH | Y | Lecture, Small group discussion, Autopsy | Written/Viva voce | | General Medicine | |
| FM12.1 | Describe features and management of abuse/poisoning with following camicals: Tobacco, cannabis, amphetamines, cocaine, hallucinogens, designer drugs& solvent | K | K/KH | Y | Lecture, Small group discussion, Autopsy | Written/Viva voce | | General Medicine | |
| FM13.1 | Describe toxic pollution of environment, its medico-legal aspects & toxic hazards of occupation and industry | K | K/KH | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine | |
| FM14.2 | Demonstrate the correct technique of clinical examination in a suspected case of poisoning & prepare medico-legal report in a simulated/ supervised environment | S | SH | Y | Bedside clinic (ward/casualty), Small group discussion | Logbook Skill station/Viva voce/ OSCE | | General Medicine | |
| FM14.3 | Assist and demonstrate the proper technique in collecting, preserving and dispatch of the exhibits in a suspected case of poisoning, along with clinical examination . | S | SH | Y | Bedside clinic, Small group discussion/DOAP session | Skill lab/Viva voce | | General Medicine | |

Dermatology, Venereology & Leprosy

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| DR9.1 | Classify, describe the epidemiology, etiology, microbiology pathogenesis and clinical presentations and diagnostic features of Leprosy | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | Microbiology, Community Medicine |
| DR9.2 | Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination | S | SH | Y | Lecture, Small group discussion | Bedside clinic session/ Skill assessment | | General Medicine | |
| DR9.4 | Enumerate, describe and identify lepra reactions and supportive measures and therapy of lepra reactions | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | Pharmacology |
| DR9.5 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | Pharmacology, Community Medicine |
| DR9.6 | Describe the treatment of Leprosy based on the WHO guidelines | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | Pharmacology, Community Medicine |
| DR9.7 | Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma. | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | General Medicine | Pharmacology, Psychiatry |
| DR10.1 | Identify and classify syphilis based on the presentation and clinical manifestations | S | SH | Y | Bedside clinic | Skill assessment | | General Medicine | Microbiology |
| DR10.3 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | Pharmacology, Microbiology |
| DR10.4 | Describe the prevention of congenital syphilis | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | |
| DR10.5 | Counsel in a non-judgemental and empathetic manner patients on prevention of sexually transmitted diseases | C | SH | Y | Lecture, Small group discussion | Skill assessment | | General Medicine | |
| DR10.6 | Describe the etiology, diagnostic and clinical features of non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | Microbiology |

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| DR10.7 | Identify and differentiate based on the clinical features non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) | S | SH | Y | Lecture, Small group discussion | Skill assessment | | General Medicine | Microbiology |
| DR10.8 | Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | Pharmacology, Microbiology |
| DR10.9 | Describe the syndromic approach to ulcerative sexually transmitted disease | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | |
| DR10.10 | Describe the etiology, diagnostic and clinical features and management of gonococcal and non gonococcal urethritis | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | |
| DR11.1 | Describe the etiology, pathogenesis and clinical features of the dermatologic manifestations of HIV and its complications including opportunistic infections | K | KH | Y | Lecture, Small group discussion | Written /Viva voce | | General Medicine | Microbiology |
| DR11.2 | Identify and distinguish the dermatologic manifestations of HIV its complications, opportunistic infections and adverse reactions | S | SH | Y | Lecture, Small group discussion | Skill assessment | | General Medicine | Microbiology |
| DR11.3 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for dermatologic lesions in HIV | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | General Medicine | Pharmacology, Microbiology |
| DR12.7 | Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions | S | SH | Y | Lecture, Small group discussion | Skill assessment | | General Medicine | Pathology, Microbiology |
| DR16.1 | Identify and distinguish skin lesions of SLE | S | SH | Y | Lecture, Small group discussion | Skill assessment | | General Medicine | Pathology |
| DR16.2 | Identify and distinguish Raynaud's phenomenon | S | SH | Y | Lecture, Small group discussion | Skill assessment | | General Medicine | Pathology |
| DR17.1 | Enumerate and identify the cutaneous findings in vitamin A deficiency | K/S | SH | Y | Lecture, Small group discussion | Skill assessment/ Viva voce | | General Medicine, Pediatrics, Biochemistry | |

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| DR17.2 | Enumerate and describe the various skin changes in Vitamin B complex deficiency | K | KH | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine, Pediatrics, Biochemistry | |
| DR17.3 | Enumerate and describe the various changes in Vitamin C deficiency | K | KH | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine, Pediatrics, Biochemistry | |
| DR17.4 | Enumerate and describe the various changes in Zinc deficiency | K | KH | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine, Pediatrics, Biochemistry | |
| DR18.1 | Enumerate the cutaneous features of Type 2 diabetes | K | K | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine | |
| DR18.2 | Enumerate the cutaneous features of hypo- & hyperthyroidism | K | K | Y | Lecture, Small group discussion | Written/Viva voce | | General Medicine | |
| Anesthesiology | | | | | | | | | |
| AS2.1 | Enumerate the indications, describe the steps and demonstrate in a simulated environment basic life support in adults children and neonates | S | SH | N | DOAP session | Skill assessment | | General Medicine, Pediatrics | |
| AS2.2 | Enumerate the indications, describe the steps and demonstrate in a simulated environment advanced life support in adults and children | S | SH | N | DOAP session | Skill assessment | | General Medicine | |
| AS3.1 | Describe the principles of preoperative evaluation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Surgery, General Medicine |
| AS3.2 | Elicit, present and document an appropriate history including medication history in a patient undergoing Surgery as it pertains to a preoperative anaesthetic evaluation | S | SH | Y | DOAP session, Bedside clinic | Skill station | | | General Surgery, General Medicine |
| AS3.3 | Demonstrate and document an appropriate clinical examination in a patient undergoing General Surgery | S | SH | Y | DOAP session, Bedside clinic | Skill station | | | General Surgery, General Medicine |

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| AS3.4 | Choose and interpret appropriate testing for patients undergoing Surgery | S | SH | Y | DOAP session, Bedside clinic | Skill station | | | General Surgery, General Medicine |
| AS3.5 | Determine the readiness for General Surgery in a patient based on the preoperative evaluation | S | SH | Y | DOAP session, Bedside clinic | Skill station | | | General Surgery, General Medicine |
| AS7.2 | Enumerate and describe the criteria for admission and discharge of a patient to an ICU | S | KH | Y | Lecture, Small group discussion, DOAP session | Written/ Viva voce | | | General Medicine |
| AS7.3 | Observe and describe the management of an unconscious patient | S | KH | Y | Lecture, Small group discussion DOAP session | Written/ Viva voce | | Physiology | General Medicine |
| AS7.4 | Observe and describe the basic setup process of a ventilator | S | KH | Y | Lecture, Small group discussion DOAP session | Written/ Viva voce | | Physiology | General Medicine |
| AS7.5 | Observe and describe the principles of monitoring in an ICU | S | KH | Y | Lecture, Small group discussion DOAP session | Written/ Viva voce | | | General Medicine |
| AS8.4 | Describe the principles of pain management in palliative care | K | KH | Y | Lecture, Small group discussion, DOAP session | Written/ Viva voce | | Pharmacology | General Medicine |
| AS8.5 | Describe the principles of pain management in the terminally ill | K | KH | Y | Lecture, Small group discussion, DOAP session | Written/ Viva voce | | Pharmacology | General Medicine |
| AS10.4 | Define and describe common medical and medication errors in anaesthesia | K | KH | Y | Lecture, Small group discussion, DOAP session | Written/ Viva voce | | Pharmacology | General Medicine |
| Otorhinolaryngology (ENT) | | | | | | | | | |
| EN4.53 | Describe the Clinical features, Investigations and principles of management of HIV manifestations of the ENT | K | KH | N | Lecture, Small group discussion, Demonstration | Written/ Viva voce/ Skill assessment | | General Medicine | |

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| Ophthalmology | | | | | | | | | |
| OP5.2 | Define, enumerate and describe the aetiology, associated systemic conditions, clinical features, complications, indications for referral and management of scleritis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| OP6.3 | Enumerate systemic conditions that can present as iridocyclitis and describe their ocular manifestations | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| OP9.3 | Describe the role of refractive error correction in a patient with headache and enumerate the indications for referral | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | General Medicine | |
| Dentistry | | | | | | | | | |
| DE1.4 | Discuss the role of dental caries as a focus of sepsis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology, General Medicine | |
| Psychiatry | | | | | | | | | |
| PS3.7 | Enumerate and describe common organic psychiatric disorders, magnitude, etiology and clinical features | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PS3.8 | Enumerate and describe the essential investigations in patients with organic psychiatric disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PS4.1 | Describe the magnitude and etiology of alcohol and substance use disorders | K | KH | Y | Lecture, Small group discussion | Lecture/ Small group discussion | | | General Medicine |
| PS4.2 | Elicit, describe and document clinical features of alcohol and substance use disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | General Medicine |
| PS4.3 | Enumerate and describe the indications and interpret laboratory and other tests used in alcohol and substance abuse disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | General Medicine |
| PS4.4 | Describe the treatment of alcohol and substance abuse disorders including behavioural and pharmacologic therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | General Medicine |

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| PS4.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in alcohol and substance abuse | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | General Medicine |
| PS10.1 | Enumerate and describe the magnitude and etiology of somatoform, dissociative and conversion disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PS10.2 | Enumerate, elicit, describe and document clinical features in patients with somatoform, dissociative and conversion disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | General Medicine |
| PS10.3 | Enumerate and describe the indications and interpret laboratory and other tests used in somatoform, dissociative and conversion disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | General Medicine |
| PS10.4 | Describe the treatment of somatoform disorders including behavioural, psychosocial and pharmacologic therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | General Medicine |
| PS10.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in somatoform, dissociative and conversion disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | General Medicine |
| PS12.1 | Enumerate and describe the magnitude and etiology of psychosomatic disorders | K | KH | Y | Lecture Small group discussion | Written/ Viva voce | | | General Medicine |
| PS12.2 | Enumerate, elicit, describe and document clinical features in patients with magnitude and etiology of psychosomatic disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | General Medicine |
| PS12.3 | Enumerate and describe the indications and interpret laboratory and other tests of psychosomatic disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | General Medicine |
| PS12.4 | Describe the treatment of psychosomatic disorders including behavioural, psychosocial and pharmacologic therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | General Medicine |
| PS16.1 | Enumerate and describe common psychiatric disorders in the elderly including dementia, depression and psychosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PS16.2 | Describe the aetiology and magnitude of psychiatric illness in the elderly | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PS16.3 | Describe the therapy of psychiatric illness in elderly including psychosocial and behavioural therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |

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| PS16.4 | Demonstrate family education in a patient with psychiatric disorders occurring in the elderly in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | General Medicine |
| Obstetrics & Gynaecology | | | | | | | | | |
| OG12.1 | Define, classify and describe the etiology and pathophysiology, early detection, investigations; principles of management of hypertensive disorders of pregnancy and eclampsia, complications of eclampsia | K | KH | Y | Lecture, Small group discussion, Bedside clinics | Written/ Viva voce/ Skill assessment | | | General Medicine |
| OG12.2 | Define, Classify and describe the etiology, pathophysiology, diagnosis, investigations, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of anemia in pregnancy | K | KH | Y | Lecture, Small group discussion, Bedside clinics | Written/ Viva voce/ Skill assessment | | | General Medicine |
| OG12.3 | Define, Classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of diabetes in pregnancy | K | KH | Y | Lecture, Small group discussion, Bedside clinics | Written/ Viva voce/ Skill assessment | | | General Medicine |
| OG12.4 | Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of heart diseases in pregnancy | K | KH | Y | Lecture, Small group discussion, Bedside clinics | Written/ Viva voce/ Skill assessment | | | General Medicine |
| OG12.5 | Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management in pregnancy of urinary tract infections | K | KH | Y | Lecture, Small group discussion, Bedside clinics | Written/ Viva voce/ Skill assessment | | | General Medicine |
| OG12.6 | Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management in pregnancy of liver disease | K | KH | Y | Lecture, Small group discussion, Bedside clinics | Written/ Viva voce/ Skill assessment | | | General Medicine |
| OG12.7 | Describe and discuss Screening, risk factors, management of mother and newborn with HIV | K | KH | Y | Lecture, Small group discussion, Bedside clinics | Written/ Viva voce/ Skill assessment | | | General Medicine |
| Pediatrics | | | | | | | | | |

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| PE14.3 | Discuss the risk factors, clinical features, diagnosis and management of Organophosphorous poisoning | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | General Medicine |
| PE32.3 | Interpret normal Karyotype and recognize Trisomy 21 | S | SH | Y | Bedside clinics, Skills lab | Log book | | | General Medicine |
| PE32.9 | Discuss the referral criteria and multidisciplinary approach to management of Turner Syndrome | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine, Obstetrics & Gynecology |
| General Surgery | | | | | | | | | |
| SU22.6 | Describe and discuss the clinical features of hypo- & hyperparathyroidism and the principles of their management | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| SU23.2 | Describe the etiology, clinical features and principles of management of disorders of adrenal gland | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| Orthopaedics | | | | | | | | | |
| OR5.1 | Describe and discuss the aetiopathogenesis, clinical features, Investigations and principles of management of various inflammatory disorder of joints | K | K/KH | Y | Lecture, Small group Discussion, Bedside clinic | Written/ Viva voce OSCE | | | General Medicine |
| OR11.1 | Describe and discuss the aetiopathogenesis, Clinical features, Investigations and principles of management of peripheral nerve injuries in diseases like foot drop, wrist drop, claw hand, palsies of Radial, Ulnar, Median, Lateral Popliteal and Sciatic Nerves | K | K/H | Y | Lecture Small Group discussion, case discussion | Written/ Viva voce OSCE | | Human Anatomy | General Medicine, General surgery |
| Physical Medicine & Rehabilitation | | | | | | | | | |
| PM1.2 | Define and describe disability, its cause, and magnitude, identification and prevention of disability | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine Orthopedics |
| PM1.3 | Define and describe the methods to identify and prevent disability | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine Orthopedics |

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| PM1.4 | Enumerate the rights and entitlements of differently abled persons | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine Orthopedics |
| PM2.1 | Describe the causes of disability in the patient with a cerebrovascular accident | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Human Anatomy | General Medicine |
| PM2.2 | Describe and discuss the treatment of rigidity and spasticity | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PM2.3 | Describe and discuss the principles of early mobilizations, mobility aids and splints | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PM2.4 | Describe and discuss the impact of comorbidities on the rehabilitation of the patient with cerebrovascular accident | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PM4.1 | Describe the common patterns, clinical features, investigations, diagnosis and treatment of common causes of arthritis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine Orthopedics |
| PM4.5 | Demonstrate correct assessment of muscle strength and range of movements | S | SH | Y | DOAP session, Bedside clinic | Skill assessment | | | General Medicine Orthopedics |
| PM6.1 | Perform and demonstrate a clinical examination of sensory and motor deficits of peripheral nerve | S | SH | Y | Bedside clinic | Skill assessment | | | General Medicine |
| PM6.2 | Enumerate the indications and describe the principles of nerve conduction velocity and EMG | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PM7.4 | Assess bowel and bladder function and identify common patterns of bladder dysfunction | S | KH | Y | Small group discussion | Written/ Viva voce | | | General Medicine Orthopedics |
| PM7.6 | Enumerate the indications and describe the pharmacology and side effects of commonly used drugs in neuropathic bladder | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | General Medicine |
| PM7.7 | Enumerate and describe common life threatening complications following SCI like Deep vein Thrombosis, Aspiration Pneumonia, Autonomic dysreflexia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine Orthopedics |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/ N | Suggested Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|----------------------|----------------------------------------------------|
| PM8.1 | Describe the clinical features, evaluation, diagnosis and management of disability following traumatic brain injury | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine Orthopedics General Surgery |
| PM8.2 | Describe and discuss cognitive dysfunction like deficits in attention, memory and communication | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PM8.3 | Describe and discuss common behavior and mood changes following TBI | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PM8.4 | Describe metabolic co-morbidities like SIADH, diabetes mellitus, insipidus and endocrine dysfunction following TBI | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PM8.5 | Describe the Vocational opportunities and community based rehabilitation following TBI | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| PM 9.1 | Describe rehabilitative aspects as they pertain to the elderly including patients with dementia, depression, incontinence immobility and nutritional needs | K | KH | Y | Lecture, Small group | Written Viva voce | | | General Medicine Psychiatry |
| Radiotherapy | | | | | | | | | |
| RT1.3 | Enumerate, describe and discuss classification and staging of cancer (AJCC, FIGO etc.) | K | KH | Y | Lecture | Written/ Viva voce | | Pathology | General Surgery General Medicine |