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UG MBBS Curriculum Volume -2 will be implemented from 1st August 2019.

According to MCI Curriculum for Indian Medical Graduate-2019, M.P. Medical Science University Jabalpur has also accepted & uploaded the same, which is effective from 1st August 2019. All Medical colleges must strictly follow the same curriculum. (MBBS batch admitted in 1st Year only) batches already admitted & studying currently in MBBS shall continue with existing Curriculum.

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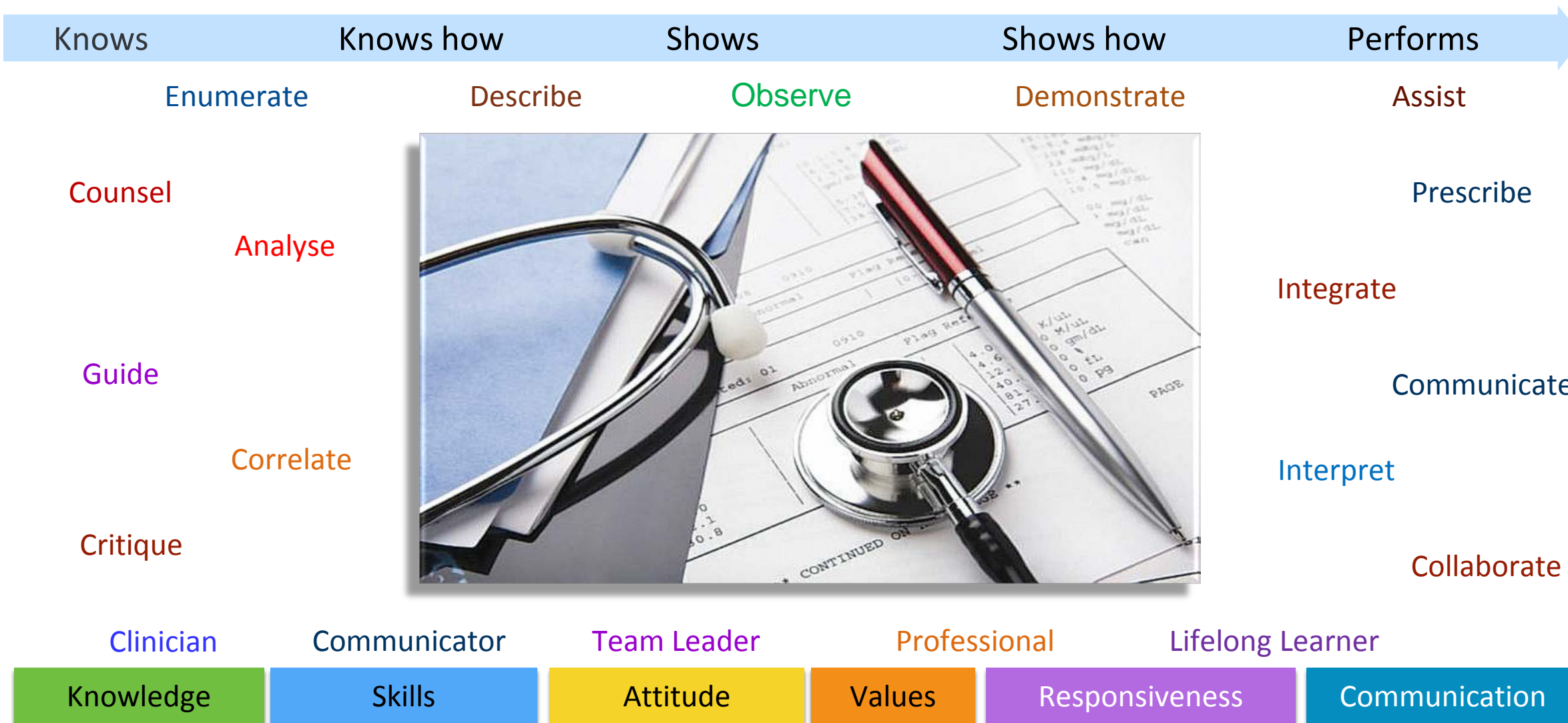
M.P. Medical Science University

Jabalpur



MEDICAL COUNCIL OF INDIA

COMPETENCY BASED UNDERGRADUATE CURRICULUM FOR THE INDIAN MEDICAL GRADUATE



**COMPETENCY BASED UNDERGRADUATE CURRICULUM
FOR THE
INDIAN MEDICAL GRADUATE**

2018



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BOARD OF GOVERNORS IN SUPERSESSION OF MEDICAL COUNCIL OF INDIA

FOREWORD

The Medical Council of India, aware of its responsibilities in creation of trained health manpower, has been engaged for the past few years in updating the medical curriculum for undergraduates and postgraduates to be in consonance with the changing health needs of the country. The task of updating and reorganization of the postgraduate curriculum in nearly 50 broad specialty disciplines to the competency pattern was accomplished by the Academic Cell of the Council with the help of subject experts and members of its Reconciliation Board and have been uploaded on the Council Website for use of the medical fraternity.

The Council visualized that the Indian Medical Graduate, at the end of the undergraduate training program, should be able to recognize "health for all" as a national goal and should be able to fulfill his/her societal obligations towards the realization of this goal. To fulfill the mandate of the undergraduate medical curriculum which is to produce a clinician, who understands and is able to provide preventive, promotive, curative, palliative and holistic care to his patients, the curriculum must enunciate clearly the competencies the student must be imparted and must have learnt, with clearly defined teaching-learning strategies and effective methods of assessment. The student should be trained to effectively communicate with patients and their relatives in a manner respectful of the patient's preferences, values, beliefs, confidentiality and privacy and to this purpose, a book on Attitude, Ethics & Communication was prepared by the Medical Council of India; the teaching faculty of medical colleges have been receiving training on this module since 2015.

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-2-

Competency based Medical Education provides an effective outcome-based strategy where various domains of teaching including teaching learning methods and assessment form the framework of competencies. Keeping this objective as the core ingredient, the Medical Council of India with the help of panel of experts drawn from across the country, laid the basic framework for the revised undergraduate medical curriculum. Over the past four years, a group of highly committed medical professionals working as Members of the MCI Reconciliation Board developed this information into a document incorporating appropriate teaching-learning strategies, tools and techniques of teaching, and modes of assessment which have culminated in the current competency based undergraduate curriculum. We understand that maximum efforts were made to encourage integrated teaching between traditional subject areas using a problem-based learning approach starting with clinical or community cases and exploring the relevance of various preclinical disciplines in both the understanding and resolution of the problem. All efforts have been made to de-emphasize compartmentalisation of disciplines so as to achieve both horizontal and vertical integration in different phases. We are proud of their work accomplishment and congratulate them in the onerous task accomplished.

It gives us great satisfaction to state that the '**competency based undergraduate curriculum**' that has been prepared by the Medical Council of India would definitely serve the cause of medical education and in creating a competent Indian Medical Graduate to serve the community.

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COMPETENCY BASED UNDERGRADUATE CURRICULUM FOR THE INDIAN MEDICAL GRADUATE

Preamble

The new Graduate Medical Education Regulations attempts to stand on the shoulder of the contributions and the efforts of resource persons, teachers and students (past and present). It intends to take the learner to provide health care to the evolving needs of the nation and the world.

More than twenty years have passed since the existing Regulations on Graduate Medical Education, 1997 was notified, necessitating a relook at all aspects of the various components in the existing regulations and adapt them to the changing demography, socio-economic context, perceptions, values and expectations of stakeholders. Emerging health care issues particularly in the context of emerging diseases, impact of advances in science and technology and shorter distances on diseases and their management also need consideration. The strong and forward looking fundamentals enshrined in the Regulations on Graduate Medical Education, 1997 has made this job easier. A comparison between the 1997 Regulations and proposed Graduate Medical Education Regulations, 2018 will reveal that the 2018 Regulations have evolved from several key principles enshrined in the 1997 Regulations.

The thrust in the new regulations is continuation and evolution of thought in medical education making it more learner-centric, patient-centric, gender-sensitive, outcome -oriented and environment appropriate. The result is an outcome driven curriculum which conforms to global trends. Emphasis is made on alignment and integration of subjects both horizontally and vertically while respecting the strengths and necessity of subject-based instruction and assessment. This has necessitated a deviation from using “broad competencies”; instead, the reports have written end of phase subject (sub) competencies. These “sub-competencies” can be mapped to the global competencies in the Graduate Medical Education Regulations.

A significant attempt has been made in the outcome driven undergraduate curriculum to provide the orientation and the skills necessary for life-long learning to enable proper care of the patient. In particular, the curriculum provides for early clinical exposure, electives and longitudinal care. Skill acquisition is an indispensable component of the learning process in medicine. The curriculum reinforces this aspect by necessitating certification of certain essential skills. The experts and the writing group have factored in patient availability, access, consent, number of students in a class etc. in suggesting skill acquisition and assessment methods; use of skills labs, simulated and guided environments are encouraged. In the pre-internship years,- the highest level of skill acquisition is a show how (SH) in a simulated or guided environment; few skills require independent performance and certification - these are marked with P (for performance). Opportunity to 'perform' these skills will be available during internship.

The importance of ethical values, responsiveness to the needs of the patient and acquisition of communication skills is underscored by providing dedicated curriculum time in the form of a longitudinal program based on Attitude, Ethics and Communication (AETCOM) competencies. Great emphasis has been placed on collaborative and inter-disciplinary teamwork, professionalism, altruism and respect in professional relationships with due sensitivity to differences in thought, social and economic position and gender.

In addition to the above, an attempt has been made to allow students from diverse educational streams and backgrounds to transition appropriately through a Foundation Course. Dedicated time has been allotted for self directed learning and co-curricular activities.

Formative and internal assessments have been streamlined to achieve the objectives of the curriculum. Minor tweaks to the summative assessment have been made to reflect evolving thought and regulatory requirements. Curricular governance and support have been strengthened, increasing the involvement of Curriculum Committee and Medical Education Departments/Units.

The curriculum document in conjunction with the new Graduate Medical Education Regulations (GMR), when notified, must be seen as a "living document" that should evolve as stakeholder requirements and aspirations change. We hope that the current GMR does just that. The Medical Council of India is

grateful to all the teachers, subject experts, process experts, patients, students and trainees who have contributed through invaluable inputs, intellectual feedbacks and valuable time spent to make this possible. This document would not have been possible without the dedicated and unstinting intellectual, mental and time-consuming efforts of the members of the Reconciliation Board of the Council and the Academic Cell of MCI.

How to use the Manual

This Manual is intended for curriculum planners in an institution to design learning and assessment experiences for the MBBS student. Contents created by subject experts have been curated to provide guidance for the curriculum planners, leaders and teachers in medical schools. They must be used with reference to and in the context of the Regulations.

Section 1

Competencies for the Indian Medical Graduate

Section 1 - provides the global competencies extracted from the Graduate Medical Education Regulations, 2018. The global competencies identified as defining the roles of the **Indian Medical Graduate** are the broad competencies that the learner has to aspire to achieve; teachers and curriculum planners must ensure that the learning experiences are aligned to this Manual.

Extract from the Graduate Medical Education Regulations, 2018

2. Objectives of the Indian Graduate Medical Training Programme

The undergraduate medical education program is designed with a goal to create an “Indian Medical Graduate” (IMG) possessing requisite knowledge, skills, attitudes, values and responsiveness, so that she or he may function appropriately and effectively as a physician of first contact of the community while being globally relevant. To achieve this, the following national and institutional goals for the learner of the Indian Medical Graduate training program are hereby prescribed:-

2.1. National Goals

At the end of undergraduate program, the Indian Medical Graduate should be able to:

- (a) recognize “health for all” as a national goal and health right of all citizens and by undergoing training for medical profession fulfill his/her social obligations towards realization of this goal.
- (b) learn every aspect of National policies on health and devote herself/himself to its practical implementation.
- (c) achieve competence in practice of holistic medicine, encompassing promotive, preventive, curative and rehabilitative aspects of common diseases.
- (d) develop scientific temper, acquire educational experience for proficiency in profession and promote healthy living.
- (e) become exemplary citizen by observance of medical ethics and fulfilling social and professional obligations, so as to respond to national aspirations.

2.2. Institutional Goals

In consonance with the national goals, each medical institution should evolve institutional goals to define the kind of trained manpower (or professionals) they intend to produce. The Indian Medical Graduates coming out of a medical institute should:

- (a) be competent in diagnosis and management of common health problems of the individual and the community, commensurate with his/her position as a member of the health team at the primary, secondary or tertiary levels, using his/her clinical skills based on history, physical examination and relevant investigations.
- (b) be competent to practice preventive, promotive, curative and rehabilitative medicine in respect to the commonly encountered health problems.
- (c) appreciate rationale for different therapeutic modalities, be familiar with the administration of the "essential drugs" and their common side effects.
- (d) be able to appreciate the socio-psychological, cultural, economic and environmental factors affecting health and develop humane attitude towards the patients in discharging one's professional responsibilities.

- (e) possess the attitude for continued self learning and to seek further expertise or to pursue research in any chosen area of medicine, action research and documentation skills.
- (f) be familiar with the basic factors which are essential for the implementation of the National Health Programs including practical aspects of the following:
 - (i) Family Welfare and Maternal and Child Health (MCH);
 - (ii) Sanitation and water supply;
 - (iii) Prevention and control of communicable and non-communicable diseases;
 - (iv) Immunization;
 - (v) Health Education;
 - (vi) Indian Public Health Standards (IPHS) at various level of service delivery;
 - (vii) Bio-medical waste disposal; and
 - (viii) Organizational and or institutional arrangements.
- (g) acquire basic management skills in the area of human resources, materials and resource management related to health care delivery, General and hospital management, principal inventory skills and counseling.
- (h) be able to identify community health problems and learn to work to resolve these by designing, instituting corrective steps and evaluating outcome of such measures.
- (i) be able to work as a leading partner in health care teams and acquire proficiency in communication skills.
- (j) be competent to work in a variety of health care settings.
- (k) have personal characteristics and attitudes required for professional life including personal integrity, sense of responsibility and dependability and ability to relate to or show concern for other individuals.

All efforts must be made to equip the medical graduate to acquire the skills as detailed in Table 11 Certifiable procedural skills – A Comprehensive list of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) – Indian Medical Graduate, as given in the Graduate Medical Education Regulations, 2018

2.3. Goals for the Learner

In order to fulfil this goal, the Indian Medical Graduate must be able to function in the following roles appropriately and effectively:-

- 2.3.1. Clinician who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.
- 2.3.2. Leader and member of the health care team and system with capabilities to collect, analyze, synthesize and communicate health data appropriately.
- 2.3.3. Communicator with patients, families, colleagues and community.
- 2.3.4. Lifelong learner committed to continuous improvement of skills and knowledge.
- 2.3.5. Professional, who is committed to excellence, is ethical, responsive and accountable to patients, community and profession.

3. Competency Based Training Programme of the Indian Medical Graduate

Competency based learning would include designing and implementing medical education curriculum that focuses on the desired and observable ability in real life situations. In order to effectively fulfil the roles as listed in clause 2, the Indian Medical Graduate would have obtained the following set of competencies at the time of graduation:

3.1. *Clinician, who understands and provides preventive, promotive, curative, palliative and holistic care with compassion*

- 3.1.1 Demonstrate knowledge of normal human structure, function and development from a molecular, cellular, biologic, clinical, behavioral and social perspective.
- 3.1.2. Demonstrate knowledge of abnormal human structure, function and development from a molecular, cellular, biological, clinical, behavioural and social perspective.
- 3.1.3 Demonstrate knowledge of medico-legal, societal, ethical and humanitarian principles that influence health care.

- 3.1.4 Demonstrate knowledge of national and regional health care policies including the National Health Mission that incorporates National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM), frameworks, economics and systems that influence health promotion, health care delivery, disease prevention, effectiveness, responsiveness, quality and patient safety.
- 3.1.5. Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is complete and relevant to disease identification, disease prevention and health promotion.
- 3.1.6. Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is contextual to gender, age, vulnerability, social and economic status, patient preferences, beliefs and values.
- 3.1.7 Demonstrate ability to perform a physical examination that is complete and relevant to disease identification, disease prevention and health promotion.
- 3.1.8 Demonstrate ability to perform a physical examination that is contextual to gender, social and economic status, patient preferences and values.
- 3.1.9 Demonstrate effective clinical problem solving, judgment and ability to interpret and integrate available data in order to address patient problems, generate differential diagnoses and develop individualized management plans that include preventive, promotive and therapeutic goals.
- 3.1.10 Maintain accurate, clear and appropriate record of the patient in conformation with legal and administrative frameworks.
- 3.1.11 Demonstrate ability to choose the appropriate diagnostic tests and interpret these tests based on scientific validity, cost effectiveness and clinical context.
- 3.1.12 Demonstrate ability to prescribe and safely administer appropriate therapies including nutritional interventions, pharmacotherapy and interventions based on the principles of rational drug therapy, scientific validity, evidence and cost that conform to established national and regional health programmes and policies for the following:
 - i) Disease prevention,
 - ii) Health promotion and cure,
 - iii) Pain and distress alleviation, and
 - iv) Rehabilitation and palliation.

- 3.1.13 Demonstrate ability to provide a continuum of care at the primary and/or secondary level that addresses chronicity, mental and physical disability.
- 3.1.14 Demonstrate ability to appropriately identify and refer patients who may require specialized or advanced tertiary care.
- 3.1.15 Demonstrate familiarity with basic, clinical and translational research as it applies to the care of the patient.

3.2. *Leader and member of the health care team and system*

- 3.2.1 Work effectively and appropriately with colleagues in an inter-professional health care team respecting diversity of roles, responsibilities and competencies of other professionals.
- 3.2.2 Recognize and function effectively, responsibly and appropriately as a health care team leader in primary and secondary health care settings.
- 3.2.3 Educate and motivate other members of the team and work in a collaborative and collegial fashion that will help maximize the health care delivery potential of the team.
- 3.2.4 Access and utilize components of the health care system and health delivery in a manner that is appropriate, cost effective, fair and in compliance with the national health care priorities and policies, as well as be able to collect, analyze and utilize health data.
- 3.2.5 Participate appropriately and effectively in measures that will advance quality of health care and patient safety within the health care system.
- 3.2.6 Recognize and advocate health promotion, disease prevention and health care quality improvement through prevention and early recognition: in a) life style diseases and b) cancer, in collaboration with other members of the health care team.

3.3. *Communicator with patients, families, colleagues and community*

- 3.3.1 Demonstrate ability to communicate adequately, sensitively, effectively and respectfully with patients in a language that the patient understands and in a manner that will improve patient satisfaction and health care outcomes.
- 3.3.2 Demonstrate ability to establish professional relationships with patients and families that are positive, understanding, humane, ethical, empathetic, and trustworthy.
- 3.3.3 Demonstrate ability to communicate with patients in a manner respectful of patient's preferences, values, prior experience, beliefs, confidentiality and privacy.

3.3.4 Demonstrate ability to communicate with patients, colleagues and families in a manner that encourages participation and shared decision-making.

3.4. Lifelong learner committed to continuous improvement of skills and knowledge

3.4.1. Demonstrate ability to perform an objective self-assessment of knowledge and skills, continue learning, refine existing skills and acquire new skills.

3.4.2. Demonstrate ability to apply newly gained knowledge or skills to the care of the patient.

3.4.3. Demonstrate ability to introspect and utilize experiences, to enhance personal and professional growth and learning.

3.4.4. Demonstrate ability to search (including through electronic means), and critically reevaluate the medical literature and apply the information in the care of the patient.

3.4.5. Be able to identify and select an appropriate career pathway that is professionally rewarding and personally fulfilling.

3.5. *Professional who is committed to excellence, is ethical, responsive and accountable to patients, community and the profession*

3.5.1. Practice selflessness, integrity, responsibility, accountability and respect.

3.5.2. Respect and maintain professional boundaries between patients, colleagues and society.

3.5.3. Demonstrate ability to recognize and manage ethical and professional conflicts.

3.5.4. Abide by prescribed ethical and legal codes of conduct and practice.

3.5.5. Demonstrate a commitment to the growth of the medical profession as a whole.

Section 2

Subject-wise outcomes

Section 2 contains subject-wise outcomes so called “sub-competencies” that must be achieved at the end of instruction in that subject. These are organised in tables and have two parts. The core subject outcomes are in first part. The second part in the same document (titled Integration) contains outcomes/competencies in other subjects which have been identified by experts in those subjects as requiring alignment or integration with the core subject.

Outcomes (competencies) in each subject are grouped according to topics number-wise. It is important to review the individual outcomes (competencies) in the light of the topic outcomes as a whole. For each competency outlined - the learning domains (Knowledge, Skill, Attitude, Communication) are identified. The expected level of achievement in that subject is identified as – [knows (K), knows how (KH), shows how (SH), perform (P)]. As a rule, ‘perform’ indicates independent performance without supervision and is required rarely in the pre-internship period. The outcome is a core (Y - must achieve) or a non-core (N - desirable) outcome. Suggested learning and assessment methods (these are suggestions) and explanation of the terms used are given under the section “definitions used in this document”. The suggested number of times a skill must be performed independently for certification in the learner’s log book is also given. Last two columns indicate subjects within the same phase and other phases with which the topic can be taught - together - aligned (temporal coordination), shared, correlated or nested.

The number of topics and competencies in each subject are given below:

Topics & outcomes in Pre-clinical & Para-clinical subjects

| Sr. No. | Subjects | Number of topics | Number of outcomes |
|----------------|---|-------------------------|---------------------------|
| 1. | Human Anatomy | 82 | 409 |
| 2. | Physiology | 11 | 137 |
| 3. | Biochemistry | 11 | 89 |
| 4. | Pharmacology | 05 | 85 |
| 5. | Pathology | 36 | 182 |
| 6. | Microbiology | 08 | 54 |
| 7. | Forensic Medicine & Toxicology | 14 | 162 |
| | Total | 167 | 1118 |

Topics & outcomes in Medicine and Allied subjects

| Sr. No. | Subjects | Number of topics | Number of outcomes |
|----------------|---|-------------------------|---------------------------|
| 1. | Community Medicine | 20 | 107 |
| 2. | General Medicine | 26 | 506 |
| 3. | Respiratory Medicine | 02 | 47 |
| 4. | Pediatrics | 35 | 406 |
| 5. | Psychiatry | 19 | 117 |
| 6. | Dermatology, Venereology & Leprosy | 18 | 73 |
| 7. | Physical Medicine & Rehabilitation | 09 | 43 |
| | Total | 129 | 1299 |

Topics & outcomes in Surgery and Allied subjects

| Sr. No. | Subjects | Number of topics | Number of outcomes |
|----------------|-------------------------------------|-------------------------|---------------------------|
| 1. | General Surgery | 30 | 133 |
| 2. | Ophthalmology | 09 | 60 |
| 3. | Otorhinolaryngology | 04 | 76 |
| 4. | Obstetrics & Gynaecology | 38 | 126 |
| 5. | Orthopedics | 14 | 39 |
| 6. | Anesthesiology | 10 | 46 |
| 7. | Radiodiagnosis | 01 | 13 |
| 8. | Radiotherapy | 05 | 16 |
| 9. | Dentistry | 05 | 23 |
| | Total | 116 | 532 |

Section 3

Sample topics used for alignment & integration

Section 3 contains a sample selection of topics that run across the phases which can be used for alignment and integration. These are suggestions and institutions can select their own set of topics which can run across phases.

It is important to design the curriculum with a view to ensure with several broad outcomes in mind: a) achievement of the broad competencies by the learner at the end of the MBBS program, b) retain the subject - wise character of learning and assessment and ensure that phase-wise subject outcomes are met and assessed, c) teaching topics that are similar together thereby reducing redundancy and allowing the learner to integrate the concept as the most important step in integration (alignment or temporal coordination) (see document on integration), and d) align learning and assessment experiences to the outcome and the level of achievement specified.

Understanding the competencies table

Understanding the competencies table

| A | B | C | D | E | F | G | H | I | J |
|--|---|--------|-----------|------|------------------------------------|-----------------------------|-----------------------------|----------------------|------------------------|
| No. | Competencies | Domain | K/KH/SH/P | Core | Suggested Teaching Learning Method | Suggested Assessment method | No. required to certify (P) | Vertical Integration | Horizontal Integration |
| Physiology | | | | | | | | | |
| Summary | | | | | | | | | |
| Name of Topic: General Physiology | | | | | | | | | |
| Number of Competencies: (08) | | | | | | | | | |
| PY1.1 | Describe the structure and functions of a | K | KH | Y | Lectures, Small group discussion | Written/Viva | | | Biochemistry |
| IM15.4 | Elicit <i>document</i> and present a medical history that helps delineate the | S | SH | Y | Bed Side clinic, DOAP | Skill assessment | | Community Medicine | |

Description of competency

Unique number of the competency. First two alphabets represent the subject (see list); number following alphabet reflects topic number, following period is a running number.

Identifies the domain or domains addressed
 K - Knowledge
 S - Skill
 A - Attitude
 C - Communication

Identifies the level of competency required based on the Miller's pyramid
 K - Knows
 KH - Knows How
 S - Skill
 SH - Show How
 P - Perform independently

Identifies if the competency is core or desirable.
 Y indicates Core;
 N-non-core

Identifies the suggested learning method.
 DOAP - Demonstrate (by Student) Observe, Assist Perform)

Identifies the suggested assessment method
 Skill assessment - Clinics, Skills lab, Practicals etc.

no of times a skill needs to be done independently to be certified for independent performance;
 Rarely used in UG

Subject (s) in other phases with which the competency can be vertically integrated to increase relevance or improve basic understanding

Subject (s) in the same phase with which the competency can be horizontally integrated or aligned to allow a more wholesome understanding

***Numbers given are for illustrative purposes only and should not be compared with the same in curriculum documents**

Deriving learning objectives from competencies

Deriving learning objectives from competencies

| | | |
|----|---|--|
| K | Knows | A knowledge attribute – Usually enumerates or describes |
| KH | Knows how | A higher level of knowledge – is able to discuss or analyse |
| S | Shows | A skill attribute: is able to identify or demonstrate the steps |
| SH | Shows how | A skill attribute: is able to interpret / demonstrate a complex procedure requiring thought, knowledge and behaviour |
| P | Performs (under supervision or independently) | Mastery for the level of competence - When done independently under supervision a pre-specified number of times - certification or capacity to perform independently results |

Competency: An **observable** ability of a health professional, **integrating multiple components** such as knowledge, skills, values and attitudes.

| | | | | |
|---------|---|-----|----|---|
| PA42.3* | Identify the etiology of meningitis based on given CSF parameters | K/S | SH | Y |
|---------|---|-----|----|---|

| | |
|---------|--|
| PA42.1* | At the end of the session the phase II student must be able to enumerate the most common causes of meningitis correctly |
| PA42.2* | At the end of the session the phase II student must be able to enumerate the components of CSF analysis correctly |
| PA42.3* | At the end of the session the phase II student must be able to describe the CSF features for a given etiology of meningitis accurately |
| PA42.4* | At the end of the session the phase II student must be able to identify the aetiology of meningitis correctly from a given set of CSF parameters |

Audience - who will do the behavior

Behavior - What should the learner be able to do?

Condition - Under what conditions should the learner be able to do it?

Degree – How well must it be done

Objective: Statement of what a learner should be able to do at the end of a specific learning experience

***Numbers given are for illustrative purposes only and should not be compared with the same in curriculum documents**

Deriving learning methods from competencies

Deriving learning methods from competencies

Competency: An **observable** ability of a health professional, **integrating multiple components** such as knowledge, skills, values and attitudes.

| | | | | |
|---------|---|-----|----|---|
| PA42.3* | Identify the etiology of meningitis based on given CSF parameters | K/S | SH | Y |
|---------|---|-----|----|---|

Objective: Statement of what a learner should be able to do at the end of a specific learning experience

| | | |
|---------|---|--|
| PA42.1* | At the end of the session the Phase II student must be able to enumerate the most common causes of meningitis correctly | Lecture → small group discussion |
| PA42.2* | At the end of the session the Phase II student must be able to enumerate the components of a CSF analysis correctly | Related objectives can be combined into one teaching session |
| PA42.3* | At the end of the session the Phase II student must be able to describe the CSF features for a given etiologic of meningitis accurately | |
| PA42.4* | At the end of the session the Phase II student must the able to identify the aetiology of meningitis correctly from a given set of CSF parameters | small group discussion, practical session |

*Numbers given are for illustrative purposes only and should not be compared with the same in curriculum documents

Deriving assessment methods from competencies

Deriving assessment methods from competencies-1

Competency: An **observable** ability of a health professional, **integrating multiple components** such as knowledge, skills, values and attitudes.

| | | | | |
|---------|---|-----|----|---|
| PA42.3* | Identify the etiology of meningitis based on given CSF parameters | K/S | SH | Y |
|---------|---|-----|----|---|

Objective: Statement of what a learner should be able to do at the end of a specific learning experience

| | | |
|---------|--|---|
| PA42.1* | At the end of the session the Phase I Phase II student must be able to enumerate the most common causes of meningitis correctly | Short note or part of structured essay: Enumerate 5 causes of meningitis based on their prevalence in India |
| PA42.2* | At the end of the session the Phase II student must be able to enumerate the components of a CSF analysis correctly | Short note or part of structured essay: Enumerate the components tested in a CSF analysis |
| PA42.3* | At the end of the session the Phase II student must be able to describe the CSF features for a given aetiology of meningitis accurately | Short note or part of structured essay: Describe the CSF findings that are characteristic of tuberculous meningitis |
| PA42.4* | At the end of the session the Phase II student must be able to identify the aetiology of meningitis correctly from a given set of CSF parameters | Short note / part of the structured essay/ Skill station/ Viva voce Review the CSF findings in the following patient and identify (write or vocalise) the most likely etiology |

* Numbers given are for illustrative purposes only and should not be compared with numbers in the curriculum document

Deriving assessment methods from competencies-2

Competency: An **observable** ability of a health professional, **integrating multiple components** such as knowledge, skills, values and attitudes.

| | | | | | | | | |
|--------|--|---|----|---|------------------------------------|-----------------------|----------|-----------|
| 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 | Didactic Small group discussion | Written/ Viva voce | Medicine | Pathology |
|--------|--|---|----|---|------------------------------------|-----------------------|----------|-----------|

↓
Objective: Statement of what a learner should be able to do at the end of a specific learning experience

| | |
|--------|--|
| MI2.1* | Enumerate the common microbial agents causing anaemia |
| MI2.2* | Describe the morphology of agent (1,2 etc) |
| MI2.3* | Describe the mode of infection of agent in humans |
| MI2.4* | Discuss the pathogenesis of anemia caused by agent |
| MI2.5* | Describe the clinical course of infection by agent |
| MI2.6* | Enumerate the diagnostic tests to identify the aetiology of agent as a cause of anemia |
| MI2.7* | Discuss the methods to prevent infection by agent |
| MI2.8* | Describe the treatment of infection by agent |

Integrate concept - not necessarily teachers
Plan session with teachers of both subjects -teachers from both subjects usually not needed. Ensure redundancy and duplication by reviewing both subjects



Horizontally aligned and integrated with pathology

Vertically integrated with General Medicine



Integrate concept - not necessarily teachers Plan session with teachers from both phases. Make a decision on how much of the information needs to be brought down to this phase to make it relevant. Consider how a competency can ascend over phases: for eg. - can be at a KH -(know how) in phase II but becomes SH in phase III. For vertical integration with clinical subjects, use of a case to link the concept (a well written paper, case is sufficient). Using teachers from both phases is rarely required

The concept of integration

Concept of integration used in the Manual

Integration is a learning experience that allows the learner to perceive relationships from blocks of knowledge and develop a unified view of its basis and its application. The GMR 2018 applies these principles to the extent that will retain the strengths of silo - based education and assessment while providing experiences that will allow learners to integrate concepts.

Keeping this in mind, the Regulations recommend temporal coordination as described by Harden (called alignment in this document) as the major method to be followed allowing similar topics in different subjects to be thought separately but during the same time frame (Figure 1a).

In a small proportion - not to exceed 20% of the total curriculum an attempt can be made to Share (Figure 1b) topics or Correlate (Figure 1c) topics by using an integration session. The integration session most preferred will be a case based discussion in an appropriate format ensuring that elements in the same phase (horizontal) and from other phases are addressed. Care must be taken to ensure that achievement phase - based objectives are given primacy - the integrative elements from other phases are used only to provide adequate recall and understand the clinical application of concepts. It must be emphasized that integration does not necessarily require multiple teachers in each class. Experts from each phase and subject may be involved in the lesson planning but not it in its delivery unless deemed necessary.

As much as possible the necessary correlates from other phases must also be introduced while discussing a topic in a given subject - Nesting (Figure 1d) (Harden). Topics that cannot be aligned and integrated must be provided adequate time in the curriculum throughout the year.

Assessment will continue to be subject based. However, efforts must be made to ensure that phase appropriate correlates are tested to determine if the learner has internalized and integrated the concept and its application.

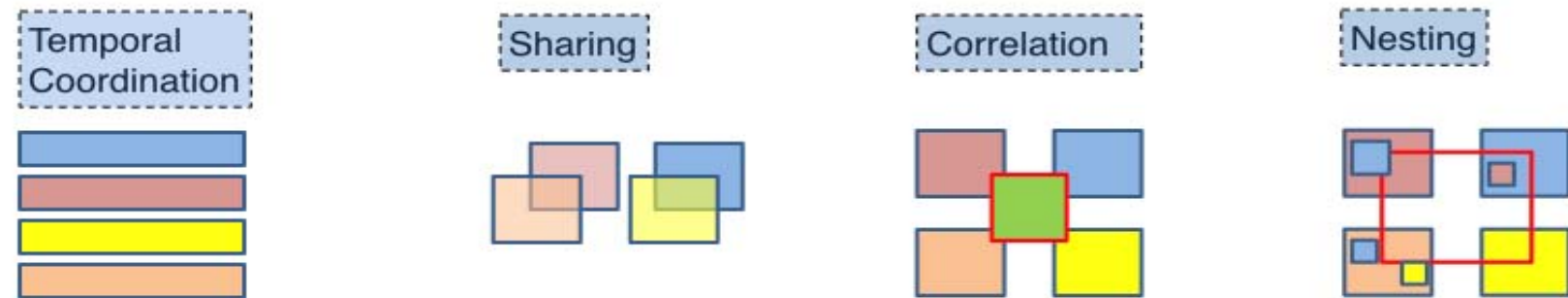


Figure 1 : Integration concepts framed in the GMR. Coloured boxes represent subjects. 1 a. Temporal coordination: The timetable is adjusted so that topics within the subjects or disciplines which are related, are scheduled at the same time. b. Sharing: Two disciplines may agree to plan and jointly implement a teaching program c. Correlation: the emphasis remains on disciplines or subjects with subject-based courses taking up most of the curriculum time. Within this framework, an integrated teaching session or course is introduced in addition to the subject-based teaching (green box with red border) d. Nesting: the teacher targets, within a subject-based course, skills relating to other subjects. Adapted from Harden R Med Edu 2000. 34; 551

Definitions used in the Manual

1. **Goal:** A projected state of affairs that a person or system plans to achieve.

In other words: Where do you want to go? or What do you want to become?

2. **Competency:** The habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served.

In other words: What should you have? or What should have changed?

3. **Objective:** Statement of what a learner should be able to do at the end of a specific learning experience.

In other words: What the Indian Medical Graduate should know, do, or behave.

Action Verbs used in this manual

| Knowledge | Skill | Attitude/communicate |
|---------------|---------------------------|------------------------------|
| Enumerate | Identify | Counsel |
| List | Demonstrate | Inform |
| Describe | Perform under supervision | Demonstrate understanding of |
| Discuss | Perform independently | |
| Differentiate | Document | |
| Define | Present | |
| Classify | Record | |
| Choose | Interpret | |
| Elicit | | |
| Report | | |

Note:

1. Specified essential competencies only will be required to be performed independently at the end of the final year MBBS.
2. The word 'perform' or 'do' is used ONLY if the task has to be done on patients or in laboratory practical in the pre/para- clinical phases.
3. Most tasks that require performance during undergraduate years will be performed under supervision.
4. If a certification to perform independently has been done, then the number of times the task has to be performed under supervision will be indicated in the last column.

Explanation of terms used in this manual

| | |
|--|---|
| Lecture | Any instructional large group method including traditional lecture and interactive lecture |
| Small group discussion | Any instructional method involving small groups of students in an appropriate learning context |
| DOAP (Demonstration- Observation - Assistance - Performance) | A practical session that allows the student to observe a demonstration, assist the performer, perform in a simulated environment, perform under supervision or perform independently |
| Skill assessment | A session that assesses the skill of the student including those in the practical laboratory, skills lab, skills station that uses mannequins/ paper case/simulated patients/real patients as the context demands |
| Core | A competency that is necessary in order to complete the requirements of the subject (traditional must know) |
| Non-Core | A competency that is optional in order to complete the requirements of the subject (traditional nice (good) to know/ desirable to know) |
| National Guidelines | Health programs as relevant to the competency that are part of the National Health Program |

Domains of learning

| | |
|---|---------------|
| K | Knowledge |
| S | Skill |
| A | Attitude |
| C | Communication |

Levels of competency

| | | |
|----|---|--|
| K | Knows | A knowledge attribute - Usually enumerates or describes |
| KH | Knows how | A higher level of knowledge - is able to discuss or analyze |
| S | Shows | A skill attribute: is able to identify or demonstrate the steps |
| SH | Shows how | A skill attribute: is able to interpret/ demonstrate a complex procedure requiring thought, knowledge and behavior |
| P | Performs (under supervision or independently) | Mastery for the level of competence - When done independently under supervision a pre-specified number of times - certification or capacity to perform independently results |

Note:

In the table of competency - the highest level of competency acquired is specified and implies that the lower levels have been acquired already. Therefore, when a student is able to SH - Show how - an informed consent is obtained - it is presumed that the preceding steps - the knowledge, the analytical skills, the skill of communicating have all been obtained.

It may also be noted that attainment of the highest level of competency may be obtained through steps spread over several subjects or phases and not necessarily in the subject or the phase in which the competency has been identified.

Volume II

Competency based Undergraduate Curriculum in Medicine and Allied subjects

COMMUNITY MEDICINE (CODE: CM)

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------------------------|------------------------|-------------|--|--------------------------------|---------------------------------------|----------------------|---------------------------|
| COMMUNITY MEDICINE | | | | | | | | | |
| Topic: Concept of Health and Disease | | Number of competencies: (10) | | | Number of procedures that require certification:(NIL) | | | | |
| CM1.1 | Define and describe the concept of Public Health | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM1.2 | Define health; describe the concept of holistic health including concept of spiritual health and the relativeness & determinants of health | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM1.3 | Describe the characteristics of agent, host and environmental factors in health and disease and the multi factorial etiology of disease | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM1.4 | Describe and discuss the natural history of disease | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM1.5 | Describe the application of interventions at various levels of prevention | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM1.6 | Describe and discuss the concepts, the principles of Health promotion and Education, IEC and Behavioral change communication (BCC) | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM1.7 | Enumerate and describe health indicators | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM1.8 | Describe the Demographic profile of India and discuss its impact on health | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM1.9 | Demonstrate the role of effective Communication skills in health in a simulated environment | S | SH | Y | DOAP sessions | Skill Assessment | | AETCOM | |
| CM1.10 | Demonstrate the important aspects of the doctor patient relationship in a simulated environment | S | SH | Y | DOAP sessions | 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 Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|-------------|---|--|---------------------------------------|--|---------------------------|
| Topic: Relationship of social and behavioural to health and disease Number of competencies: (5) Number of procedures that require certification: (NIL) | | | | | | | | | |
| CM2.1 | Describe the steps and perform clinico socio-cultural and demographic assessment of the individual, family and community | S | SH | Y | Lecture, Small group discussion, DOAP session | Written / Viva voce/ Skill assessment | | | |
| CM2.2 | Describe the socio-cultural factors, family (types), its role in health and disease & demonstrate in a simulated environment the correct assessment of socio-economic status | S | SH | Y | Lecture, Small group discussion, DOAP session | Written / Viva voce/ Skill assessment | | | |
| CM2.3 | Describe and demonstrate in a simulated environment the assessment of barriers to good health and health seeking behavior | S | SH | Y | Lecture, Small group discussion, DOAP session | Written / Viva voce/ Skill assessment | | | |
| CM2.4 | Describe social psychology, community behaviour and community relationship and their impact on health and disease | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM2.5 | Describe poverty and social security measures and its relationship to health and disease | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| Topic: Environmental Health Problems Number of competencies: (8) Number of procedures that require certification: (NIL) | | | | | | | | | |
| 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 | |
| CM3.2 | Describe concepts of safe and wholesome water, sanitary sources of water, water purification processes, water quality standards, concepts of water conservation and rainwater harvesting | K | KH | Y | Lecture, Small group discussion, DOAP session | Written / Viva voce | | | |
| 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 | |
| CM3.4 | Describe the concept of solid waste, human excreta and sewage disposal | 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 Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|---|-------------------|------------------------|-------------|---|--|---------------------------------------|------------------------------|---------------------------|
| CM3.5 | Describe the standards of housing and the effect of housing on health | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM3.6 | Describe the role of vectors in the causation of diseases. Also discuss National Vector Borne disease Control Program | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Microbiology | |
| CM3.7 | Identify and describe the identifying features and life cycles of vectors of Public Health importance and their control measures | S | SH | Y | Lecture, Small group discussion, DOAP session | Written / Viva voce/ Skill assessment | | Microbiology | |
| CM3.8 | Describe the mode of action, application cycle of commonly used insecticides and rodenticides | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Pharmacology | |
| Topic: Principles of health promotion and education Number of competencies: (3) Number of procedures that require certification: (NIL) | | | | | | | | | |
| CM4.1 | Describe various methods of health education with their advantages and limitations | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM4.2 | Describe the methods of organizing health promotion and education and counselling activities at individual family and community settings | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM4.3 | Demonstrate and describe the steps in evaluation of health promotion and education program | S | SH | Y | Small group session, DOAP session | Written / Viva voce/ Skill assessment | | | |
| Topic: Nutrition Number of competencies: (08) Number of procedures that require certification: (NIL) | | | | | | | | | |
| 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 | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|-------------|--|--|---------------------------------------|------------------------------|---------------------------|
| 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 | |
| CM5.6 | Enumerate and discuss the National Nutrition Policy, important national nutritional Programs including the Integrated Child Development Services Scheme (ICDS) etc | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Pediatrics | |
| CM5.7 | Describe food hygiene | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | Microbiology |
| CM5.8 | Describe and discuss the importance and methods of food fortification and effects of additives and adulteration | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Pediatrics | |
| Topic: Basic statistics and its applications Number of competencies: (04) Number of procedures that require certification: (NIL) | | | | | | | | | |
| 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, 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 | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|--|-------------------|------------------------|-------------|--|--|---------------------------------------|---------------------------------|---------------------------|
| 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 | |
| Topic: Epidemiology Number of competencies: (09) Number of procedures that require certification: (NIL) | | | | | | | | | |
| 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, 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 |
| 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 | |
| CM7.9 | Describe and demonstrate the application of computers in epidemiology | S | KH | Y | Small group discussion, DOAP sessions | Written | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|---|-------------------------------------|------------------------|-------------|---|--------------------------------|---------------------------------------|--------------------------------------|---------------------------|
| Topic: Epidemiology of communicable and non- communicable diseases | | Number of competencies:(7) | | | Number of procedures that require certification:(NIL) | | | | |
| 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 | |
| CM8.6 | Educate and train health workers in disease surveillance, control & treatment and health education | S | SH | Y | DOAP sessions | Skill assessment | | | |
| CM8.7 | Describe the principles of management of information systems | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| Topic: Demography and vital statistics | | Number of competencies: (07) | | | Number of procedures that require certification: (NIL) | | | | |
| CM9.1 | Define and describe the principles of Demography, Demographic cycle, Vital statistics | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| CM9.2 | Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates | S | SH | Y | Lecture, Small group discussion, DOAP sessions | Skill assessment | | Obstetrics & Gynaecology, Pediatrics | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|---|------------------------------------|------------------------|-------------|---|--------------------------------|---------------------------------------|--------------------------------------|---------------------------|
| CM9.3 | Enumerate and describe the causes of declining sex ratio and its social and health implications | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| CM9.4 | Enumerate and describe the causes and consequences of population explosion and population dynamics of India. | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| CM9.5 | Describe the methods of population control | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | Obstetrics & Gynaecology | |
| CM9.6 | Describe the National Population Policy | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| CM9.7 | Enumerate the sources of vital statistics including census, SRS, NFHS, NSSO etc | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| Topic: Reproductive maternal and child health | | Number of competencies:(09) | | | Number of procedures that require certification: (NIL) | | | | |
| CM10.1 | Describe the current status of Reproductive, maternal, newborn and Child Health | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | Obstetrics & Gynaecology, Pediatrics | |
| CM10.2 | Enumerate and describe the methods of screening high risk groups and common health problems | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | Pediatrics, Obstetrics & Gynaecology | |
| CM10.3 | Describe local customs and practices during pregnancy, childbirth, lactation and child feeding practices | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | Pediatrics, Obstetrics & Gynaecology | |
| CM10.4 | Describe the reproductive, maternal, newborn & child health (RMCH); child survival and safe motherhood interventions | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | Obstetrics & Gynaecology, Pediatrics | |
| CM10.5 | Describe Universal Immunization Program; Integrated Management of Neonatal and Childhood Illness (IMNCI) and other existing Programs. | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | Pediatrics | |
| CM10.6 | Enumerate and describe various family planning methods, their advantages and shortcomings | 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 Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
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| CM10.7 | Enumerate and describe the basis and principles of the Family Welfare Program including the organization, technical and operational aspects | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| CM10.8 | Describe the physiology, clinical management and principles of adolescent health including ARSH | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| CM10.9 | Describe and discuss gender issues and women empowerment | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| Topic: Occupational Health Number of competencies: (05) Number of procedures that require certification: (NIL) | | | | | | | | | |
| CM11.1 | Enumerate and describe the presenting features of patients with occupational illness including agriculture | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| CM11.2 | Describe the role, benefits and functioning of the employees state insurance scheme | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| CM11.3 | Enumerate and describe specific occupational health hazards, their risk factors and preventive measures | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| CM11.4 | Describe the principles of ergonomics in health preservation | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| CM11.5 | Describe occupational disorders of health professionals and their prevention & management | K | KH | Y | Small group discussion, Lecture | Written / Viva voce | | | |
| Topic: Geriatric services Number of competencies: (04) Number of procedures that require certification: (NIL) | | | | | | | | | |
| 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 | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|-------------|--|--------------------------------|---------------------------------------|--------------------------------------|---------------------------|
| CM12.4 | Describe National program for elderly | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | General Medicine | |
| Topic: Disaster Management Number of competencies: (04) Number of procedures that require certification: (NIL) | | | | | | | | | |
| CM13.1 | Define and describe the concept of Disaster management | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | General Surgery, General Medicine | |
| 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 | |
| Topic: Hospital waste management Number of competencies: (03) Number of procedures that require certification: (NIL) | | | | | | | | | |
| CM14.1 | Define and classify hospital waste | K | KH | Y | Lecture, Small group discussion, visit to hospital | Written / Viva voce | | | Microbiology |
| CM14.2 | Describe various methods of treatment of hospital waste | K | KH | Y | Lecture, Small group discussion, visit to hospital | Written / Viva voce | | | Microbiology |
| CM14.3 | Describe laws related to hospital waste management | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | Microbiology |
| Topic: Mental Health Number of competencies: (03) Number of procedures that require certification: (NIL) | | | | | | | | | |
| CM15.1 | Define and describe the concept of mental Health | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Psychiatry | |
| CM15.2 | Describe warning signals of mental health disorder | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Psychiatry | |
| CM15.3 | Describe National Mental Health program | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Psychiatry | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|---|-------------------------------------|------------------------|-------------|---|--------------------------------|---------------------------------------|--|---------------------------|
| Topic: Essential Medicine | | Number of competencies: (3) | | | Number of procedures that require certification: (NIL) | | | | |
| CM19.1 | Define and describe the concept of Essential Medicine List (EML) | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | Pharmacology |
| CM19.2 | Describe roles of essential medicine in primary health care | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | Pharmacology |
| CM19.3 | Describe counterfeit medicine and its prevention | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | Pharmacology |
| Topic: Recent advances in Community Medicine | | Number of competencies: (04) | | | Number of procedures that require certification: (NIL) | | | | |
| CM20.1 | List important public health events of last five years | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM20.2 | Describe various issues during outbreaks and their prevention | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM 20.3 | Describe any event important to Health of the Community | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | |
| CM 20.4 | Demonstrate awareness about laws pertaining to practice of medicine such as Clinical establishment Act and Human Organ Transplantation Act and its implications | K | KH | Y | Lecture, Small group discussion | 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 | | | | | | | | | |
| Intergration | | | | | | | | | |
| Physiology | | | | | | | | | |
| PY9.6 | Enumerate the contraceptive methods for male and female. Discuss their advantages & disadvantages | K | KH | Y | Lectures, Small group discussion | Written/ Viva voce | | Obstetrics & Gynaecology, Community Medicine | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
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| Biochemistry | | | | | | | | | |
| BI8.5 | Summarize the nutritional importance of commonly used items of food including fruits and vegetables.(macro-molecules & its importance) | K | KH | Y | Lectures, Small group discussions | Written/ Viva voce | | Community Medicine, General Medicine, Pediatrics | |
| Pathology | | | | | | | | | |
| PA12.1 | Enumerate and describe the pathogenesis of disorders caused by air pollution, tobacco and alcohol | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | | Community Medicine |
| 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 | |
| PA26.7 | 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 | |
| Microbiology | | | | | | | | | |
| MI1.3 | Describe the epidemiological basis of common infectious diseases | K | KH | Y | Lecture | Written/ Viva voce | | | Community Medicine |
| 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 | Community Medicine |
| MI8.5 | Define Healthcare Associated Infections (HAI) and enumerate the 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 | |
| MI8.6 | Describe the basics of Infection control | 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 Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|-------------|---------------------------------------|--------------------------------|---|----------------------|-------------------------------------|
| MI8.7 | Demonstrate Infection control practices and use of Personal Protective Equipments (PPE) | S | P | Y | DOAP session | Skill assessment | 3 each in (Hand hygiene & PPE) | General Surgery | Community Medicine |
| MI8.16 | Describe the National Health Programs in the prevention of common infectious disease (for information purpose only as taught in CM) | K | K | Y | Lecture | Written / Viva voce | | | |
| Pharmacology | | | | | | | | | |
| PH1.55 | Describe and discuss the following National Health programmes including Immunisation, Tuberculosis, Leprosy, Malaria, HIV, Filariasis, Kala Azar, Diarrhoeal diseases, Anaemia & nutritional disorders, Blindness, Non-communicable diseases, Cancer and Iodine deficiency | K | KH | Y | Lecture | Written / Viva voce | | | Community Medicine |
| Forensic Medicine & Toxicology | | | | | | | | | |
| FM2.33 | Demonstrate ability to use local resources whenever required like in mass disaster situations | A & C | KH | Y | Lecture, Small group discussions | Written/ Viva voce | | Community Medicine | |
| Dermatology, Venereology & Leprosy | | | | | | | | | |
| DR9.1 | Classify, describe the epidemiology, etiology, microbiology pathogenesis and clinical presentations and diagnostic features of Leprosy | K | KH | Y | Lecture, Small group discussions | Written / Viva voce | | General Medicine | Microbiology, Community Medicine |
| 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 discussions | 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 discussions | Written / Viva voce | | General Medicine | Pharmacology, Community Medicine |
| Ophthalmology | | | | | | | | | |
| OP9.4 | Enumerate, describe and discuss the causes of avoidable blindness and the National Programs for Control of Blindness (including vision 2020) | K | KH | Y | Lecture, Small group discussions | Written / Viva voce | | | Community Medicine |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
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| Psychiatry | | | | | | | | | |
| PS19.1 | Describe the relevance, role and status of community psychiatry | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| PS19.2 | Describe the objectives strategies and contents of the of the National Mental Health Programme | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| PS19.4 | Enumerate and describe the salient features of the prevalent mental health laws in India | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| PS19.5 | Describe the concept and principles of preventive psychiatry and mental health promotion (positive mental health); and community education | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| General Medicine | | | | | | | | | |
| 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 | |
| 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 | |
| IM9.15 | Describe the national programs for anemia prevention | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Pharmacology, Community Medicine | |
| IM12.12 | Describe and discuss the iodisation programs of the government of India | K | KH | Y | Lecture, Bedside clinic | short note | | Community Medicine | |
| 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 | Lectures, Small group discussions | short note/ Viva voce | | Pathology, Community Medicine | |
| 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 | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
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| 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 | |
| IM25.4 | 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 | |
| IM25.13 | 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 | |

Obstetrics & Gynaecology

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|--------|--|-------|----|---|---|--|--|--------------------|------------|
| OG1.1 | Define and discuss birth rate, maternal mortality and morbidity | K | KH | Y | Lecture, Small group discussions | Short notes | | Community Medicine | |
| OG1.2 | Define and discuss perinatal mortality and morbidity including perinatal and neonatal mortality and morbidity audit | K | KH | Y | Lecture, Small group discussions | Short notes | | Community Medicine | Pediatrics |
| OG8.1 | Enumerate describe and discuss the objectives of antenatal care, assessment of period of gestation; screening for high-risk factors | K | KH | Y | Small group discussions, Bedside clinics, Lecture | Written / Viva voce/ Skill assessment | | Community Medicine | |
| OG19.2 | Counsel in a simulated environment, contraception and puerperal sterilisation | S/A/C | SH | Y | DOAP session | Skill assessment | | Community Medicine | |
| OG21.1 | Describe and discuss the temporary and permanent methods of contraception, indications, technique and complications; selection of patients, side effects and failure rate including OC, male contraception, emergency contraception and IUCD | K | KH | Y | Lecture, Small group discussions, Bedside clinics | Written / Viva voce/ Skill assessment | | Community Medicine | |
| OG33.3 | Describe and demonstrate the screening for cervical cancer in a simulated environment | K/S | SH | Y | DOAP session | Skill assessment | | Community Medicine | |

Pediatrics

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|--|-------------------|------------------------|-------------|---|--------------------------------|---------------------------------------|----------------------------------|---------------------------|
| PE3.5 | Discuss the role of the child developmental unit in management of developmental delay | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PE3.7 | Visit a Child Developmental unit and observe its functioning | S | KH | Y | Lecture, Small group discussion | Log book Entry | | Community Medicine | |
| PE8.1 | Define the term Complementary Feeding | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PE8.2 | Discuss the principles the initiation, attributes , frequency, techniques and hygiene related to complementary feeding including | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| PE8.3 | Enumerate the common complimentary foods | K | K | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| PE8.4 | Elicit history on the Complementary Feeding habits | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | Community Medicine | |
| PE8.5 | Counsel and educate mothers on the best practices in Complimentary Feeding | A/C | SH | Y | DOAP session | Document in Log Book | | Community Medicine | |
| PE9.1 | Describe the age related nutritional needs of infants, children and adolescents including micronutrients and vitamins | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine, Biochemistry | |
| PE9.2 | Describe the tools and methods for Assessment and classification of Nutritional status of infants, children and adolescents | K | KH | Y | Lecture, Small group discussion, | Written / Viva voce | | Community Medicine | |
| PE9.4 | Elicit, Document and present an appropriate nutritional history and perform a dietary recall | S | SH | Y | Bedside clinic, Skill Lab | Skill Assessment | | Community Medicine | |
| PE9.5 | Calculate the age related Calorie requirement in Health and Disease and identify gap | S | SH | Y | Bedside clinics, Small group discussion | Skill assessment | | Community Medicine | |
| PE9.6 | Assess and classify the nutrition status of infants, children and adolescents and recognize deviations | S | SH | Y | Bedside clinic, Small group discussion | Skill Assessment | | Community Medicine | |
| PE9.7 | Plan an appropriate diet in Health and disease | S | SH | N | Bedside clinic, Small group discussion | Document in logbook | | Community Medicine | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|---|-------------------|------------------------|-------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------------------|---------------------------|
| PE10.4 | Identify children with under nutrition as per IMNCI criteria and plan referral | S | SH | Y | DOAP session | Document in log book | | Community Medicine | |
| PE17.1 | State the vision and outline the goals, strategies and plan of action of NHM and other important national programs pertaining to maternal and child health including RMNCH A+, RBSK, RKSK, JSSK mission Indradhanush and ICDS | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PE17.2 | Analyse the outcomes and appraise the monitoring and evaluation of NHM | K | KH | Y | Debate | Written/ Viva voce | | Community Medicine | |
| PE18.1 | List and explain the components, plans, outcomes of Reproductive child health (RCH) program and appraise the monitoring and evaluation | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | Obstetrics & Gynaecology |
| PE18.2 | Explain preventive interventions for Child survival and safe motherhood | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | Obstetrics & Gynaecology |
| PE18.3 | Conduct Antenatal examination of women independently and apply at-risk approach in antenatal care | S | SH | Y | Bedside clinics | Skill station | | Community Medicine | Obstetrics & Gynaecology |
| PE18.4 | Provide intra-natal care and conduct a normal Delivery in a simulated environment | S | SH | Y | DOAP session, Skills lab | Document in Log Book | | Community Medicine | Obstetrics & Gynaecology |
| PE18.6 | Perform Postnatal assessment of newborn and mother, provide advice on breast feeding, weaning and on family planning | S | SH | Y | Bedside clinics, Skill Lab | Skill Assessment | | Community Medicine | Obstetrics & Gynaecology |
| PE18.8 | Observe the implementation of the program by Visiting the Rural Health Centre | S | KH | Y | Bedside clinics, Skill Lab | Document in log book | | Community Medicine | Obstetrics & Gynaecology |
| PE19.1 | Explain the components of the Universal immunization Program and the sub National Immunization Programs | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, Microbiology | |
| PE19.2 | Explain the epidemiology of Vaccine preventable diseases | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, Microbiology | |
| PE19.3 | Vaccine description with regard to classification of vaccines, strain used, dose, route, schedule, risks, benefits and side effects, indications and contraindications | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, Microbiology | |
| PE19.4 | Define cold chain and discuss the methods of safe storage and handling of vaccines | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine, Microbiology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
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| PE19.5 | Discuss immunization in special situations – HIV positive children, immunodeficiency, preterm , organ transplants, those who received blood and blood products, splenectomised children, Adolescents, travellers | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine, Microbiology | |
| PE19.8 | Demonstrate willingness to participate in the National and sub national immunisation days | A | SH | Y | Lecture, Small group discussion | Document in Log Book | | Community Medicine | |
| PE19.12 | Observe the Administration the UIP vaccines | S | SH | Y | DOAP session | Document in Log Book | | Community Medicine | |
| PE29.5 | Discuss the National anaemia Control program | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| PE34.3 | Discuss the various regimens for management of Tuberculosis as per National Guidelines | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology, Community Medicine, Pharmacology | Respiratory Medicine |
| PE34.4 | Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology, Community Medicine, Pharmacology | Respiratory Medicine |
| General Surgery | | | | | | | | | |
| SU7.1 | Describe the Planning and conduct of Surgical audit | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| SU7.2 | Describe the principles and steps of clinical research in surgery | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| Respiratory Medicine | | | | | | | | | |
| CT1.1 | Describe and discuss the epidemiology of tuberculosis and its impact on the work, life and economy of India | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| CT1.4 | Describe the epidemiology, the predisposing factors and microbial and therapeutic factors that determine resistance to drugs | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine, Microbiology, Pharmacology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
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| CT1.15 | Prescribe an appropriate antituberculosis regimen based on the location of disease, smear positivity and negativity and co-morbidities based on current national guidelines including directly observed tuberculosis therapy (DOTS) | K | SH | Y | Bedside clinic, Small group discussion, Lecture | Skill assessment | | Pharmacology, Community Medicine | |
| CT1.16 | Describe the appropriate precautions, screening, testing and indications for chemoprophylaxis for contacts and exposed health care workers | K | KH | Y | Bedside clinic, Small group discussion | Written | | Community Medicine | |
| CT1.18 | Educate health care workers on national programs of Tuberculosis and administering and monitoring the DOTS program | C | SH | Y | DOAP session | Skill assessment | | Community Medicine | |
| CT2.24 | Recognise the impact of OAD on patient's quality of life, well being, work and family | A | KH | Y | Small group discussion, Bedside clinic | Observation by faculty | | Community Medicine | |
| CT2.25 | Discuss and describe the impact of OAD on the society and workplace | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| CT2.26 | Discuss and describe preventive measures to reduce OAD in workplaces | K | KH | Y | Lecture, Small group discussion | Written / Viva voce | | Community Medicine | |
| CT2.27 | Demonstrate an understanding of patient's inability to change working, living and environmental factors that influence progression of airway disease | A | KH | Y | Small group discussion, Bedside clinic | Observation by faculty | | Community Medicine | |

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 |
|-----------------------------|---|-------------------------------------|------------------------|--------------|---|---------------------------------|---------------------------------------|-------------------------------------|---------------------------|
| 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 | |

| 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 |
|--------|---|-------------------|------------------------|--------------|---|---------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 | |

| 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 |
|--------|---|-------------------|------------------------|--------------|--|--|---------------------------------------|----------------------------|---------------------------|
| 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 | | | |

| 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 |
|--|---|-------------------|------------------------|--------------|---|--------------------------------------|---------------------------------------|---|---------------------------|
| 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 | | |

| 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 |
|--------|--|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|-------------------------------|---------------------------|
| 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 | | |

| 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 |
|-------------------------|---|-------------------------------------|------------------------|--------------|---|---------------------------------|---------------------------------------|--|---------------------------|
| 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 | |

| 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 |
|--------|--|-------------------|------------------------|--------------|---------------------------------|---|---------------------------------------|------------------------------|---------------------------|
| 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)

| 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 |
|--------|---|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|-------------------------------------|---------------------------|
| 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 | |

| 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 |
|--------|---|-------------------|------------------------|--------------|----------------------------------|---|---------------------------------------|----------------------------|---------------------------|
| 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 | |

| 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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| 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 | |

| 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 |
|--------|---|-------------------|------------------------|--------------|--|---------------------------------|---------------------------------------|----------------------------|---------------------------|
| 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 | |

| 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 |
|--|---|-------------------|------------------------|--------------|---------------------------------|---|---------------------------------------|----------------------------|---------------------------|
| 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 |
|--------|---|-------------------|------------------------|--------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 |
|----------------------------|--|-------------------------------------|------------------------|--------------|---|---------------------------------|---------------------------------------|-----------------------|---------------------------|
| 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 |
|--------|--|-------------------|------------------------|--------------|---------------------------------|--|---------------------------------------|----------------------|---------------------------|
| 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 |
|----------------------|--|-------------------------------------|------------------------|--------------|--|--------------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 |
|---|--|-------------------------------------|------------------------|--------------|---|--------------------------------------|---------------------------------------|-------------------------------------|---------------------------|
| 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 |
|---------|--|-------------------|------------------------|--------------|--------------------------------------|---|---------------------------------------|----------------------|---------------------------|
| 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 |
|---------|---|-------------------|------------------------|--------------|--------------------------------------|---|---------------------------------------|----------------------|---------------------------|
| 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 | | | |

| 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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| 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 |
|--|--|-------------------|-------------------------------------|--------------|---------------------------------|---|---------------------------------------|--------------------------|---------------------------|
| 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 |

| 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 |
|--------------------------|---|-------------------------------------|------------------------|--------------|--|---------------------------------|---------------------------------------|--------------------------|---------------------------|
| 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 |

| 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 |
|---------|---|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|----------------------|---|
| 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 |

| 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 |
|--|---|-------------------------------------|------------------------|--------------|--|---------------------------------|---------------------------------------|----------------------------------|---|
| 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 | |

| 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 |
|---------|---|-------------------|------------------------|--------------|----------------------------------|---------------------------------|---------------------------------------|----------------------------|---------------------------|
| 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 |
|---|--|-------------------|------------------------|--------------|-------------------------------|---------------------------------|---------------------------------------|---|---------------------------|
| 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 |
|---------|--|-------------------|------------------------|--------------|-------------------------------|---------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 |
|---------|--|-------------------|------------------------|--------------|-------------------------------|---------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 |
|---------|--|-------------------|------------------------|--------------|-------------------------------|---------------------------------|---------------------------------------|--------------------------|---------------------------|
| 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 | | | |

| 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 |
|--|--|-------------------|------------------------|--------------|-------------------------------|---------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 | |

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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 | |

| 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 |
|---------|---|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|------------------------------|---------------------------|
| 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 | |

| 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 |
|--------|---|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|--|---------------------------|
| 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 Number4 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 | |

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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 | |

| 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 |
|--------|---|-------------------|------------------------|--------------|---|---------------------------------------|---------------------------------------|--------------------------------|---------------------------|
| 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 |
|--------|---|-------------------|------------------------|--------------|---------------------------------|---|---------------------------------------|----------------------|----------------------------------|
| 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 |

| 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 |
|---------|---|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|--|----------------------------|
| 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 | |

| 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 |
|-----------------------|--|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|--|-----------------------------------|
| 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 |

| 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 |
|----------------------------------|--|-------------------|------------------------|--------------|--|--|---------------------------------------|----------------------|--------------------------------------|
| 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 | |

| 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 |
|----------------------|--|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|-----------------------------------|---------------------------|
| 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 |

| 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 |
|--------|---|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 |

| 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 |
|-------------------------------------|--|-------------------|------------------------|--------------|--|--------------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 | | | | | | | | | |

| 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 |
|---|---|-------------------|------------------------|--------------|---|---------------------------------|---------------------------------------|----------------------|---|
| 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 |

| 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 |
|--------|---|-------------------|------------------------|--------------|---------------------------------|---------------------------------|---------------------------------------|----------------------|---------------------------------|
| 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 |

RESPIRATORY MEDICINE (CODE: CT)

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|-----------------------------|--|-------------------------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|--|------------------------|
| RESPIRATORY MEDICINE | | | | | | | | | |
| Topic: Tuberculosis | | Number of competencies: (19) | | | Number of procedures that require certification : (01) | | | | |
| CT1.1 | Describe and discuss the epidemiology of tuberculosis and its impact on the work, life and economy of India | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| CT1.2 | Describe and discuss the microbiology of tubercle bacillus, mode of transmission, pathogenesis, clinical evolution and natural history of pulmonary and extra pulmonary forms (including lymph node, bone and CNS) | K | KH | Y | Lecture, Small group discussion | written | | Microbiology | |
| CT1.3 | Discuss and describe the impact of co-infection with HIV and other co-morbid conditions. Like diabetes on the natural history of tuberculosis | K | K | Y | Lecture, Small group discussion | written | | Microbiology | |
| CT1.4 | Describe the epidemiology, the predisposing factors and microbial and therapeutic factors that determine resistance to drugs | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, Microbiology, Pharmacology | |
| CT1.5 | Elicit, document and present an appropriate medical history that includes risk factor, contacts, symptoms including cough and fever CNS and other manifestations | S | SH | Y | Bed side clinic, DOAP session | Skill assessment | | | |
| CT1.6 | Demonstrate and perform a systematic examination that establishes the diagnosis based on the clinical presentation that includes a) general examination, b) examination of the chest and lung including loss of volume, mediastinal shift, percussion and auscultation (including DOAP session of lung sounds and added sounds) c) examination of the lymphatic system and d) relevant CNS examination | S | SH | Y | Bed side clinic, DOAP session | Skill assessment | | | |
| CT1.7 | Perform and interpret a PPD (mantoux) and describe and discuss the indications and pitfalls of the test | S | P | Y | DOAP session | Maintenance of log book | | Microbiology | |
| CT1.8 | Generate a differential diagnosis based on the clinical history and evolution of the disease that prioritises the most likely diagnosis | K | K | Y | Bedside clinic, Small group discussion | Bedside clinic/ Viva voce | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|---|-------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|----------------------------------|------------------------|
| CT1.9 | Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing | K | K | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| CT1.10 | Perform and interpret an AFB stain | S | P | Y | DOAP session | Skill assessment | 1 | Microbiology | |
| CT1.11 | Assist in the performance, outline the correct tests that require to be performed and interpret the results of a pleural fluid aspiration | S | SH | Y | Skill assessment | Skill assessment | | | |
| CT1.12 | Enumerate the indications for tests including: serology, special cultures and polymerase chain reaction and sensitivity testing | K | KH | Y | Small group discussion, Lecture | Short note/ Viva voce | | Microbiology | |
| CT1.13 | Describe and discuss the origin, indications, technique of administration, efficacy and complications of the BCG vaccine | K | KH | Y | Lecture, Small group discussion | Short note/ Viva voce | | Microbiology | |
| CT1.14 | Describe and discuss the pharmacology of various anti-tuberculous agents, their indications, contraindications, interactions and adverse reactions | K | KH | Y | Lecture, Small group discussion | Short note/ Viva voce | | Pharmacology, Microbiology | |
| CT1.15 | Prescribe an appropriate antituberculosis regimen based on the location of disease, smear positivity and negativity and co-morbidities based on current national guidelines including directly observed tuberculosis therapy (DOTS) | K | SH | Y | Bedside clinic, Small group discussion, Lecture | Skill assessment | | Pharmacology, Community Medicine | |
| CT1.16 | Describe the appropriate precautions, screening, testing and indications for chemoprophylaxis for contacts and exposed health care workers | K | KH | Y | Bedside clinic, Small group discussion | Written | | Community Medicine | |
| CT1.17 | Define criteria for the cure of Tuberculosis; describe and recognise the features of drug resistant tuberculosis, prevention and therapeutic regimens | S | P | Y | Lecture, Small group discussion | Written | | | |
| CT1.18 | Educate health care workers on National Program of Tuberculosis and administering and monitoring the DOTS program | C | SH | Y | DOAP session | Skill assessment | | Community Medicine | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|--|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|------------------------|------------------------|
| CT1.19 | Communicate with patients and family in an empathetic manner about the diagnosis, therapy | S | P | Y | DOAP session | Skill assessment | | AETCOM | |
| Topic: Obstructive airway disease Number of competencies: (28) Number of procedures that require certification : (01) | | | | | | | | | |
| CT2.1 | Define and classify obstructive airway disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Pathology | |
| CT2.2 | Describe and discuss the epidemiology, risk factors and evolution of obstructive airway disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology , Pathology | |
| CT2.3 | Enumerate and describe the causes of acute episodes in patients with obstructive airway disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| CT2.4 | Describe and discuss the physiology and pathophysiology of hypoxia and hypercapnea | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Pathology | |
| CT2.5 | Describe and discuss the genetics of alpha 1 antitrypsin deficiency in emphysema | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Pathology | |
| CT2.6 | Describe the role of the environment in the cause and exacerbation of obstructive airway disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| CT2.7 | Describe and discuss allergic and non-allergic precipitants of obstructive airway disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| CT2.8 | Elicit document and present a medical history that will differentiate the aetiologies of obstructive airway disease, severity and precipitants | S | SH | Y | Bed side clinic, DOAP session | Skill assessment | | | |
| CT2.9 | Perform a systematic examination that establishes the diagnosis and severity that includes measurement of respiratory rate, level of respiratory distress, effort tolerance, breath sounds, added sounds, identification of signs of consolidation pleural effusion and pneumothorax | S | SH | Y | Bed side 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 Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|--|-------------------|------------------------|---------------|---|--|---------------------------------------|-----------------------|------------------------|
| CT2.10 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | S | SH | Y | Bed side clinic, DOAP session | Skill assessment/ Written | | | |
| CT2.11 | Describe, discuss and interpret pulmonary function tests | S | SH | Y | Bed side clinic, DOAP session | Skill assessment | | Physiology, Pathology | |
| CT2.12 | Perform and interpret peak expiratory flow rate | S | P | Y | Bedside clinic, DOAP session | documentation in log book/ Skill assessment | 3 | | |
| CT2.13 | Describe the appropriate diagnostic work up based on the presumed aetiology | S | SH | Y | Bedside clinic, Small group discussion | Written/ Skill assessment | | | |
| CT2.14 | Enumerate the indications for and interpret the results of : pulse oximetry, ABG, Chest Radiograph | K | SH | Y | Bedside clinics, Small group discussion, DOAP session | Written/ Skill assessment | | | |
| CT2.15 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | K | SH | Y | Bedside clinics, Small group discussion, DOAP session | Written/ Skill assessment | | | |
| CT2.16 | Discuss and describe therapies for OAD including bronchodilators, leukotriene inhibitors, mast cell stabilisers, theophylline, inhaled and systemic steroids, oxygen and immunotherapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| CT2.17 | Describe and discuss the indications for vaccinations in OAD | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| CT2.18 | Develop a therapeutic plan including use of bronchodilators and inhaled corticosteroids | K | SH | Y | Bedside clinics, Small group discussion, DOAP session | Written/ Skill assessment | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|----------------------|------------------------|
| CT2.19 | Develop a management plan for acute exacerbations including bronchodilators, systemic steroids, antimicrobial therapy | K | SH | Y | Bedside clinics, Small group discussion, DOAP session | Written/ Skill assessment | | | |
| CT2.20 | Describe and discuss the principles and use of oxygen therapy in the hospital and at home | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| CT2.21 | Describe discuss and counsel patients appropriately on smoking cessation | K/C | SH | Y | DOAP session | Skill assessment | | AETCOM | |
| CT2.22 | Demonstrate and counsel patient on the correct use of inhalers | S/C | SH | Y | DOAP session | Skill assessment | | | |
| CT2.23 | Communicate diagnosis treatment plan and subsequent follow up plan to patients | K/C | SH | Y | DOAP session | Skill assessment | | | |
| CT2.24 | Recognise the impact of OAD on patient's quality of life, well being, work and family | A | KH | Y | Small group discussion, Bedside clinics | Observation by faculty | | Community Medicine | |
| CT2.25 | Discuss and describe the impact of OAD on the society and workplace | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| CT2.26 | Discuss and describe preventive measures to reduce OAD in workplaces | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| CT2.27 | Demonstrate an understanding of patient's inability to change working, living and environmental factors that influence progression of airway disease | A | KH | Y | Small group discussion, Bedside clinics | Observation by faculty | | Community Medicine | |
| CT2.28 | Demonstrate an understanding for the difficulties faced by patients during smoking cessation | A | KH | Y | Small group discussion, Bedside clinics | Observation by faculty | | | |
| <p>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</p> | | | | | | | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|-------------------------|--|-------------------|------------------------|---------------|--|---|---------------------------------------|----------------------|------------------------|
| Integration | | | | | | | | | |
| Physiology | | | | | | | | | |
| PY6.8 | Demonstrate the correct technique to perform & interpret Spirometry | S | SH | Y | DOAP sessions | Skill assessment/ Viva voce | | Respiratory Medicine | |
| Pharmacology | | | | | | | | | |
| PH1.32 | Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of drugs used in bronchial asthma and COPD | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Respiratory Medicine | |
| PH1.33 | Describe the mechanism of action, types, doses, side effects, indications and contraindications of the drugs used in cough (antitussives, expectorants/ mucolytics) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Respiratory Medicine | |
| PH1.44 | Describe the first line antitubercular drugs, their mechanisms of action, side effects and doses. | K | KH | Y | Lecture | Written/ Viva voce | | Respiratory Medicine | |
| PH1.45 | Describe the drugs used in MDR and XDR Tuberculosis | K | KH | Y | Lecture | Written/ Viva voce | | Respiratory Medicine | Microbiology |
| General Medicine | | | | | | | | | |
| 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 |
| Pediatrics | | | | | | | | | |
| PE28.19 | Describe the etio-pathogenesis, clinical features, diagnosis, management and prevention of asthma in children | S | SH | Y | Bedside clinics, Small group discussion, Lecture | Skill Assessment/ Written/ Viva voce | | Respiratory Medicine | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|--|-------------------|------------------------|---------------|--|---------------------------------------|---------------------------------------|--|------------------------|
| PE28.20 | Counsel the child with asthma on the correct use of inhalers in a simulated environment | S | P | Y | Bedside clinics, Small group discussion, Lecture | Skills Assessment/ Written/ Viva voce | 3 | Respiratory Medicine | |
| PE34.1 | Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | Respiratory Medicine |
| PE34.2 | Discuss the various diagnostic tools for childhood tuberculosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | Respiratory Medicine |
| PE34.3 | Discuss the various regimens for management of Tuberculosis as per National Guidelines | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology, Community Medicine, Pharmacology | Respiratory Medicine |
| PE34.4 | Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology, Community Medicine, Pharmacology | Respiratory Medicine |
| PE34.5 | Able to elicit, document and present history of contact with tuberculosis in every patient encounter | S | SH | Y | Bedside clinics, Skill lab | Skill Assessment | | | Respiratory Medicine |
| PE34.6 | Identify a BCG scar | S | P | Y | Bed side clinics, Skills lab | Skill Assessment | 3 | Microbiology | Respiratory Medicine |
| PE34.7 | Interpret a Mantoux test | S | P | Y | Bed side clinics Skills lab | Skill assessment | 3 | Microbiology | Respiratory Medicine |
| PE34.8 | Interpret a Chest Radiograph | S | SH | Y | Bedside clinics Skills lab | Skill assessment | | Radiodiagnosis | Respiratory Medicine |
| PE34.9 | Interpret blood tests in the context of laboratory evidence for tuberculosis | S | SH | N | Bed side clinics, Small group discussion | Log book | | Microbiolgy | Respiratory Medicine |
| PE34.10 | Discuss the various samples for demonstraing the organism eg Gastric Aspirate, Sputum , CSF, FNAC | K | KH | Y | Bed side clinics, Small group discussion | Written/ Viva voce | | Microbiolgy | Respiratory Medicine |
| PE34.11 | Perform AFB staining | S | P | Y | DOAP session | Log book/Journal | 3 | Microbiology | Respiratory Medicine |
| PE34.12 | Enumerate the indications and discuss the limitations of methods of culturing M.Tuberculi | K | KH | Y | Small group discussion | Written/ Viva voce | | Microbiology | Respiratory Medicine |

PEDIATRICS (CODE: PE)

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|---|--------------------------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PEDIATRICS | | | | | | | | | |
| Topic: Normal Growth and Development | | Number of competencies : (07) | | | Number of procedures that require certification: (02) | | | | |
| PE1.1 | Define the terminologies Growth and development and discuss the factors affecting normal growth and development | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE1.2 | Discuss and describe the patterns of growth in infants, children and adolescents | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE1.3 | Discuss and describe the methods of assessment of growth including use of WHO and Indian national standards. Enumerate the parameters used for assessment of physical growth in infants, children and adolescents | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE1.4 | Perform Anthropometric measurements, document in growth charts and interpret | S | P | Y | Small group discussion | Document in Log book | 3 | | |
| PE1.5 | Define development and discuss the normal developmental mile stones with respect to motor, behaviour, social, adaptive and language | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE1.6 | Discuss the methods of assessment of development | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE1.7 | Perform Developmental assessment and interpret | S | P | N | Bedside clinics, Skills Lab | Document in Log book | 3 | | |
| Topic: Common problems related to Growth | | Number of competencies:(06) | | | Number of procedures that require certification: (NIL) | | | | |
| PE2.1 | Discuss the etio-pathogenesis, clinical features and management of a child who fails to thrive | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE2.2 | Assessment of a child with failing to thrive including eliciting an appropriate history and examination | S | SH | Y | Bedside clinics | Skills Station | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|------------------------------------|
| PE2.3 | Counselling a parent with failing to thrive child | A/C | SH | Y | OSPE | Document in Log book | | AETCOM | |
| PE2.4 | Discuss the etio-pathogenesis, clinical features and management of a child with short stature | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE2.5 | Assessment of a child with short stature: Elicit history, perform examination, document and present | S | SH | Y | Bedside clinics, Skill lab | Skill Assessment | | | |
| PE2.6 | Enumerate the referral criteria for growth related problems | K | K | Y | Small group discussion | Written/ Viva voce | | | |
| Topic: Common problems related to Development -1 (Developmental delay , Cerebral palsy) Number of competencies:(08) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE3.1 | Define, enumerate and discuss the causes of developmental delay and disability including intellectual disability in children | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE3.2 | Discuss the approach to a child with developmental delay | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE3.3 | Assessment of a child with developmental delay - Elicit document and present history | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | |
| PE3.4 | Counsel a parent of a child with developmental delay | S | SH | Y | DOAP session | Document in Log Book | | | |
| PE3.5 | Discuss the role of the child developmental unit in management of developmental delay | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PE3.6 | Discuss the referral criteria for children with developmental delay | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE3.7 | Visit a Child Developmental Unit and observe its functioning | S | KH | Y | Lecture, Small group discussion | Log book Entry | | Community Medicine | |
| PE3.8 | Discuss the etio-pathogenesis, clinical presentation and multi-disciplinary approach in the management of Cerebral palsy | K | KH | Y | Lecture, Small group, Bedside clinics | Written/ Viva voce | | | Physical Medicine & Rehabilitation |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| Topic: Common problems related to Development-2 (Scholastic backwardness, Learning Disabilities , Autism , ADHD) Number of competencies: (06) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE4.1 | Discuss the causes and approach to a child with scholastic backwardness | K | K | N | Lecture, Small group discussion | Written | | | |
| PE4.2 | Discuss the etiology, clinical features, diagnosis and management of a child with Learning Disabilities | K | K | N | Lecture, Small group discussion | Written | | | |
| PE4.3 | Discuss the etiology, clinical features, diagnosis and management of a child with Attention Deficit Hyperactivity Disorder (ADHD) | K | K | N | Lecture, Small group discussion | Written | | | |
| PE4.4 | Discuss the etiology, clinical features, diagnosis and management of a child with Autism | K | K | N | Lecture, Small group discussion | Written | | | |
| PE4.5 | Discuss the role of Child Guidance clinic in children with Developmental problems | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry | |
| PE4.6 | Visit to the Child Guidance Clinic | S | KH | N | Lecture, Small group discussion | Document in Log Book | | | |
| Topic: Common problems related to behavior Number of procedures that require certification: (NIL) Number of competencies: (11) | | | | | | | | | |
| PE5.1 | Describe the clinical features, diagnosis and management of thumb sucking | K | K | N | Lecture, Small group discussion | Written | | | |
| PE5.2 | Describe the clinical features, diagnosis and management of Feeding problems | K | K | N | Lecture, Small group discussion | Written | | | |
| PE5.3 | Describe the clinical features, diagnosis and management of nail biting | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE5.4 | Describe the clinical features, diagnosis and management of Breath Holding spells | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE5.5 | Describe the clinical features, diagnosis and management of temper tantrums | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE5.6 | Describe the clinical features, diagnosis and management of Pica | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE5.7 | Describe the clinical features, diagnosis and management of Fussy infant | K | K | N | Lecture, Small group discussion | Written | | | Psychiatry |
| PE5.8 | Discuss the etiology, clinical features and management of Enuresis | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE5.9 | Discuss the etiology, clinical features and management of Encopresis | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE5.10 | Discuss the role of child guidance clinic in children with behavioural problems and the referral criteria | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE5.11 | Visit to Child Guidance Clinic and observe functioning | K | KH | N | Lecture, Small group discussion | Document in Log Book | | | |

Topic: Adolescent Health & common problems related to Adolescent Health **Number of competencies: (13)** **Number of procedures that require certification: (NIL)**

| | | | | | | | | | |
|-------|---|---|----|---|---------------------------------|--------------------|--|--|------------|
| PE6.1 | Define Adolescence and stages of adolescence | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE6.2 | Describe the physical, physiological and psychological changes during adolescence (Puberty) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE6.3 | Discuss the general health problems during adolescence | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE6.4 | Describe adolescent sexuality and common problems related to it | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE6.5 | Explain the Adolescent Nutrition and common nutritional problems | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE6.6 | Discuss the common Adolescent eating disorders (Anorexia Nervosa, Bulimia) | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE6.7 | Describe the common mental health problems during adolescence | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE6.8 | Respecting patient privacy and maintaining confidentiality while dealing with adolescence | A | SH | Y | Bedside clinics | Document in log book | | | AETCOM |
| PE6.9 | Perform routine Adolescent Health check up including eliciting history, performing examination including SMR (Sexual Maturity Rating), growth assessments (using Growth charts) and systemic exam including thyroid and Breast exam and the HEADSS screening | S | SH | Y | Bedside clinics | Skills station | | | |
| PE6.10 | Discuss the objectives and functions of AFHS (Adolescent Friendly Health Services) and the referral criteria | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE6.11 | Visit to the Adolescent Clinic | S | KH | Y | DOAP session | Document in Log Book | | | |
| PE6.12 | Enumerate the importance of obesity and other NCD in adolescents | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE6.13 | Enumerate the prevalence and the importance of recognition of sexual drug abuse in adolescents and children | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| <p>Topic: To promote and support optimal Breast feeding for Infants Number of competencies: (11) Number of procedures that require certification: (01)</p> | | | | | | | | | |
| PE7.1 | Awareness on the cultural beliefs and practices of breast feeding | K | K | N | Lecture, Small group discussion | Viva | | | Obstetrics & Gynaecology |
| PE7.2 | Explain the physiology of lactation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|----------------------------------|
| PE7.3 | Describe the composition and types of breast milk and discuss the differences between cow's milk and Human milk | K | KH | Y | Lecture, debate | Written/ Viva voce | | Physiology | |
| PE7.4 | Discuss the advantages of breast milk | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE7.5 | Observe the correct technique of breast feeding and distinguish right from wrong techniques | S | P | Y | Bedside clinics, Skills lab | Skill Assessment | 3 | | |
| PE7.6 | Enumerate the baby friendly hospital initiatives | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE7.7 | Perform breast examination and identify common problems during lactation such as retracted nipples, cracked nipples, breast engorgement, breast abscess | S | SH | Y | Bedside clinics, Skill Lab | Skill Assessment | | | Obstetrics & Gynaecology, AETCOM |
| PE7.8 | Educate mothers on ante natal breast care and prepare mothers for lactation | A/C | SH | Y | DOAP session | Document in Log Book | | | AETCOM |
| PE7.9 | Educate and counsel mothers for best practices in Breast feeding | A/C | SH | Y | DOAP session | Document in Log Book | | | Obstetrics & Gynaecology, AETCOM |
| PE7.10 | Respects patient privacy | A | SH | Y | DOAP session | Document in Log Book | | | AETCOM |
| PE7.11 | Participate in Breast Feeding Week Celebration | A | SH | Y | DOAP session | Document in Log Book | | | |
| Topic: Complementary Feeding Number of competencies : (05) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE8.1 | Define the term Complementary Feeding | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE8.2 | Discuss the principles, the initiation, attributes, frequency, techniques and hygiene related to Complementary Feeding including IYCF | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PE8.3 | Enumerate the common complimentary foods | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PE8.4 | Elicit history on the Complementary Feeding habits | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | Community Medicine | |
| PE8.5 | Counsel and educate mothers on the best practices in Complimentary Feeding | A/C | SH | Y | DOAP session | Document in Log Book | | Community Medicine | |

Topic: Normal nutrition, assessment and monitoring

Numbcompetencies : (07)

Number of procedures that require certification: (NIL)

| | | | | | | | | | |
|-------|---|---|----|---|---|--------------------|--|----------------------------------|--|
| PE9.1 | Describe the age related nutritional needs of infants, children and adolescents including micronutrients and vitamins | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, Biochemistry | |
| PE9.2 | Describe the tools and methods for assessment and classification of nutritional status of infants, children and adolescents | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PE9.3 | Explains the Calorific value of common Indian foods | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE9.4 | Elicit document and present an appropriate nutritional history and perform a dietary recall | S | SH | Y | Bedside clinic, Skills lab | Skill Assessment | | Community Medicine | |
| PE9.5 | Calculate the age related calorie requirement in Health and Disease and identify gap | S | SH | Y | Bedside clinics, Small group discussion | Skill assessment | | Community Medicine | |
| PE9.6 | Assess and classify the nutrition status of infants, children and adolescents and recognize deviations | S | SH | Y | Bedside clinic, Small group discussion | Skill Assessment | | Community Medicine | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-------------------------------------|---------------------------|
| PE9.7 | Plan an appropriate diet in health and disease | S | SH | N | Bedside clinic, Small group discussion | Document in logbook | | Community Medicine | |
| Topic: Provide nutritional support , assessment and monitoring for common nutritional problems Number of competencies: (06) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE10.1 | Define and describe the etio-pathogenesis, classify including WHO classification, clinical features, complication and management of Severe Acute Malnourishment (SAM) and Moderate Acute Malnutrition (MAM) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Biochemistry | |
| PE10.2 | Outline the clinical approach to a child with SAM and MAM | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Biochemistry | |
| PE10.3 | Assessment of a patient with SAM and MAM, diagnosis, classification and planning management including hospital and community based intervention, rehabilitation and prevention | S | SH | Y | Bedside clinics, Skills lab | Skill station | | Physiology, Biochemistry | |
| PE10.4 | Identify children with under nutrition as per IMNCI criteria and plan referral | S | SH | Y | DOAP session | Document in log book | | Community Medicine | |
| PE10.5 | Counsel parents of children with SAM and MAM | S | SH | Y | Bedside clinic, Skills Station | Document in Log book | | AETCOM | |
| PE10.6 | Enumerate the role of locally prepared therapeutic diets and ready to use therapeutic diets | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Obesity in children Number of competencies: (06) Number of procedures that require certification: (01) | | | | | | | | | |
| PE11.1 | Describe the common etiology, clinical features and management of obesity in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Biochemistry, Pathology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-----------------------|---------------------------|
| PE11.2 | Discuss the risk approach for obesity and discuss the prevention strategies | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Pathology | |
| PE11.3 | Assessment of a child with obesity with regard to eliciting history including physical activity, charting and dietary recall | S | SH | Y | Bedside clinics, Standardized patients | Document in log book | | | |
| PE11.4 | Examination including calculation of BMI, measurement of waist hip ratio, identifying external markers like acanthosis, striae, pseudogynaecomastia etc | S | SH | Y | Bedside clinics, Standardized patients, Videos | Skills Station | | | |
| PE11.5 | Calculate BMI, document in BMI chart and interpret | S | P | Y | Bedside clinics, Small group discussion | Document in log book | 3 | | |
| PE11.6 | Discuss criteria for referral | K | K | Y | Small group discussion | Viva voce | | | |
| Topic: Micronutrients in Health and disease-1 (Vitamins ADEK, B Complex and C) Number of competencies: (21) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE12.1 | Discuss the RDA, dietary sources of Vitamin A and their role in Health and disease | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE12.2 | Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin A | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE12.3 | Identify the clinical features of dietary deficiency / excess of Vitamin A | S | SH | Y | Bedside clinics, Small group discussion | Document in log book | | Biochemistry | |
| PE12.4 | Diagnose patients with Vitamin A deficiency, classify and plan management | S | SH | N | Bedside clinics, Skill Station | Document in log book | | Biochemistry | |
| PE12.5 | Discuss the Vitamin A prophylaxis program and their recommendations | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-------------------------------------|---------------------------|
| PE12.6 | Discuss the RDA, dietary sources of Vitamin D and their role in health and disease | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE12.7 | Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin D (Rickets and Hypervitaminosis D) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, Physiology, Pathology | |
| PE12.8 | Identify the clinical features of dietary deficiency of Vitamin D | S | SH | Y | Bedside clinics, Skills lab | Document in log book | | Biochemistry, Physiology, Pathology | |
| PE12.9 | Assess patients with Vitamin D deficiency, diagnose, classify and plan management | S | SH | Y | Bedside clinics | Document in log book | | Biochemistry, Physiology, Pathology | |
| PE12.10 | Discuss the role of screening for Vitamin D deficiency | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE12.11 | Discuss the RDA, dietary sources of Vitamin E and their role in health and disease | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE12.12 | Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin E | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE12.13 | Discuss the RDA, dietary sources of Vitamin K and their role in health and disease | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, Physiology, Pathology | |
| PE12.14 | Describe the causes, clinical features, diagnosis management and prevention of deficiency of Vitamin K | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, Physiology, Pathology | |
| PE12.15 | Discuss the RDA, dietary sources of Vitamin B and their role in health and disease | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE12.16 | Describe the causes, clinical features, diagnosis and management of deficiency of B complex Vitamins | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE12.17 | Identify the clinical features of Vitamin B complex deficiency | S | SH | Y | Bedside clinics, Skills lab | Document in log book | | Biochemistry | |
| PE12.18 | Diagnose patients with Vitamin B complex deficiency and plan management | S | SH | Y | Bedside clinics, Skills lab | Document in log book | | Biochemistry | |
| PE12.19 | Discuss the RDA , dietary sources of Vitamin C and their role in Health and disease | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE12.20 | Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin C (scurvy) | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE12.21 | Identify the clinical features of Vitamin C deficiency | S | SH | N | Bedside clinics, Skill lab | Document in log book | | Biochemistry | |

Topic: Micronutrients in Health and disease -2: Iron, Iodine, Calcium, Magnesium

Number of competencies: (14)

Number of procedures that require certification: (NIL)

| | | | | | | | | | |
|--------|---|---|----|---|--|----------------------|--|----------------------------------|--|
| PE13.1 | Discuss the RDA, dietary sources of Iron and their role in health and disease | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Biochemistry | |
| PE13.2 | Describe the causes, diagnosis and management of Fe deficiency | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Biochemistry | |
| PE13.3 | Identify the clinical features of dietary deficiency of Iron and make a diagnosis | S | SH | Y | Bedside clinics, Skills lab | Document in log book | | Pathology, Biochemistry | |
| PE13.4 | Interpret hemogram and Iron Panel | S | SH | Y | Bedside clinic, Small group discussion | Skill Assessment | | Pathology, Biochemistry | |
| PE13.5 | Propose a management plan for Fe deficiency anaemia | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | Pathology, Pharmacology | |
| PE13.6 | Discuss the National anaemia control program and its recommendations | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology, Community Medicine | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------------------|---------------------------|
| PE13.7 | Discuss the RDA , dietary sources of Iodine and their role in Health and disease | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE13.8 | Describe the causes, diagnosis and management of deficiency of Iodine | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE13.9 | Identify the clinical features of Iodine deficiency disorders | S | SH | N | Lecture, Bedside clinic | Written/ Viva voce | | Biochemistry | |
| PE13.10 | Discuss the National Goiter Control program and their recommendations | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, Community Medicine | |
| PE13.11 | Discuss the RDA, dietary sources of Calcium and their role in health and disease | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE13.12 | Describe the causes, clinical features, diagnosis and management of Ca Deficiency | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE13.13 | Discuss the RDA, dietary sources of Magnesium and their role in health and disease | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| PE13.14 | Describe the causes, clinical features, diagnosis and management of Magnesium Deficiency | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry | |
| Topic: Toxic elements and free radicals and oxygen toxicity Number of competencies: (05) Number of procedures that require certification (NIL) | | | | | | | | | |
| PE14.1 | Discuss the risk factors, clinical features, diagnosis and management of Lead Poisoning | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PE14.2 | Discuss the risk factors, clinical features, diagnosis and management of Kerosene ingestion | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | ENT | |
| 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 |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|--|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE14.4 | Discuss the risk factors, clinical features, diagnosis and management of paracetamol poisoning | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PE14.5 | Discuss the risk factors, clinical features, diagnosis and management of Oxygen toxicity | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Fluid and electrolyte balance Number of competencies:(07) Number of procedures that require certification:(NIL) | | | | | | | | | |
| PE15.1 | Discuss the fluid and electrolyte requirement in health and disease | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE15.2 | Discuss the clinical features and complications of fluid and electrolyte imbalance and outline the management | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE15.3 | Calculate the fluid and electrolyte requirement in health | S | SH | Y | Bedside clinics, Small group discussion | Skill Assessment | | | |
| PE15.4 | Interpret electrolyte report | S | SH | Y | Bedside clinics, Small group discussion | Skill Assessment | | | |
| PE15.5 | Calculate fluid and electrolyte imbalance | S | SH | Y | Bedside clinics, Small group discussion | Skill Assessment | | | |
| PE15.6 | Demonstrate the steps of inserting an IV cannula in a model | S | SH | Y | Skills Lab | mannequin | | | |
| PE15.7 | Demonstrate the steps of inserting an interosseous line in a mannequin | S | SH | Y | Skills Lab | mannequin | | | |
| Topic: Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Guideline Number of competencies:(03) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE16.1 | Explain the components of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines and method of Risk stratification | 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 Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE16.2 | Assess children <2 months using IMNCI Guidelines | S | SH | Y | DOAP session | Document in log Book | | | |
| PE16.3 | Assess children >2 to 5 years using IMNCI guidelines and Stratify Risk | S | SH | Y | DOAP session | Document in log Book | | | |
| Topic: The National Health programs, NHM Number of competencies:(02) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE17.1 | State the vision and outline the goals, strategies and plan of action of NHM and other important national programs pertaining to maternal and child health including RMNCH A+, RBSK, RKSK, JSSK mission Indradhanush and ICDS | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PE17.2 | Analyse the outcomes and appraise the monitoring and evaluation of NHM | K | KH | Y | Debate | Written/ Viva voce | | Community Medicine | |
| Topic: The National Health Programs: RCH Number of competencies: (08) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE18.1 | List and explain the components, plan, outcome of Reproductive Child Health (RCH) program and appraise its monitoring and evaluation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | Obstetrics & Gynaecology |
| PE18.2 | Explain preventive interventions for child survival and safe motherhood | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | Obstetrics & Gynaecology |
| PE18.3 | Conduct Antenatal examination of women independently and apply at-risk approach in antenatal care | S | SH | Y | Bedside clinics | Skill station | | Community Medicine | Obstetrics & Gynaecology |
| PE18.4 | Provide intra-natal care and conduct a normal delivery in a simulated environment | S | SH | Y | DOAP session, Skills lab | Document in Log Book | | Community Medicine | Obstetrics & Gynaecology |
| PE18.5 | Provide intra-natal care and observe the conduct of a normal delivery | S | SH | Y | DOAP session | Document in Log Book | | | Obstetrics & Gynaecology |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|
| PE18.6 | Perform Postnatal assessment of newborn and mother, provide advice on breast feeding, weaning and on family planning | S | SH | Y | Bed side clinics, Skill Lab | Skill Assessment | | Community Medicine | Obstetrics & Gynaecology |
| PE18.7 | Educate and counsel caregivers of children | A | SH | Y | Postnatal ward, standardized patient | Skill Assessment | | AETCOM | |
| PE18.8 | Observe the implementation of the program by visiting the Rural Health Centre | S | KH | Y | Bed side clinics, Skill Lab | Document in log book | | Community Medicine | Obstetrics & Gynaecology |
| Topic: National Programs, RCH - Universal Immunizations program Number of competencies: (16) Number of procedures that require certification: (01) | | | | | | | | | |
| PE19.1 | Explain the components of the Universal Immunization Program and the National Immunization Program | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, Microbiology, Biochemistry | |
| PE19.2 | Explain the epidemiology of Vaccine preventable diseases | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, Microbiology, Biochemistry | |
| PE19.3 | Vaccine description with regard to classification of vaccines, strain used, dose, route, schedule, risks, benefits and side effects, indications and contraindications | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, Microbiology, Biochemistry | |
| PE19.4 | Define cold chain and discuss the methods of safe storage and handling of vaccines | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, Microbiology, Biochemistry | |
| PE19.5 | Discuss immunization in special situations – HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, travellers | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine, Microbiology, Biochemistry | |
| PE19.6 | Assess patient for fitness for immunization and prescribe an age appropriate immunization schedule | S | P | Y | Out Patient clinics Skills lab | Skill Assessment | 5 | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE19.7 | Educate and counsel a patient for immunization | A/C | SH | Y | DOAP session | Document in Log Book | | | |
| PE19.8 | Demonstrate willingness to participate in the National and sub national immunisation days | A | SH | Y | Lecture, Small group discussion | Document in Log Book | | Community Medicine | |
| PE19.9 | Describe the components of safe vaccine practice – Patient education/ counselling; adverse events following immunization, safe injection practices, documentation and Medico-legal implications | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | AETCOM |
| PE19.10 | Observe the handling and storing of vaccines | S | SH | Y | DOAP session | Written/ Viva voce | | | |
| PE19.11 | Document Immunization in an immunization record | S | SH | Y | Out Patient clinics, Skills lab | Skill assessment | | | |
| PE19.12 | Observe the administration of UIP vaccines | S | SH | Y | DOAP session | Document in Log Book | | Community Medicine | |
| PE19.13 | Demonstrate the correct administration of different vaccines in a mannequin | S | SH | Y | DOAP session | Document in Log Book | | | |
| PE19.14 | Practice Infection control measures and appropriate handling of the sharps | S | SH | Y | DOAP session | Document in Log Book | | | |
| PE19.15 | Explain the term implied consent in Immunization services | K | K | Y | Small group discussion | Written/ Viva voce | | | |
| PE19.16 | Enumerate available newer vaccines and their indications including pentavalent pneumococcal, rotavirus, JE, typhoid IPV & HPV | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | |

Topic: Care of the Normal New born, and High risk New born

Number of competencies: (20)

Number of procedures that require certification: (NIL)

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE20.1 | Define the common neonatal nomenclatures including the classification and describe the characteristics of a Normal Term Neonate and High Risk Neonates | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.2 | Explain the care of a normal neonate | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.3 | Perform Neonatal resuscitation in a manikin | S | SH | Y | DOAP session | Log book entry of Performance | | | |
| PE20.4 | Assessment of a normal neonate | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | |
| PE20.5 | Counsel / educate mothers on the care of neonates | A/C | SH | Y | DOAP session | Log book documentation | | | |
| PE20.6 | Explain the follow up care for neonates including Breast Feeding, Temperature maintenance, immunization, importance of growth monitoring and red flags | S | SH | Y | DOAP session | Log book entry | | | Obstetrics & Gynaecology |
| PE20.7 | Discuss the etiology, clinical features and management of Birth asphyxia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.8 | Discuss the etiology, clinical features and management of respiratory distress in New born including meconium aspiration and transient tachypnoea of newborn | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.9 | Discuss the etiology, clinical features and management of Birth injuries | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.10 | Discuss the etiology, clinical features and management of Hemorrhagic disease of New born | 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 Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE20.11 | Discuss the clinical characteristics, complications and management of Low birth weight (preterm and Small for gestation) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.12 | Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypothermia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.13 | Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypoglycemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.14 | Discuss the etiology, clinical features and management of Neonatal hypocalcemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.15 | Discuss the etiology, clinical features and management of Neonatal seizures | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.16 | Discuss the etiology, clinical features and management of Neonatal Sepsis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.17 | Discuss the etiology, clinical features and management of Perinatal infections | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.18 | Identify and stratify risk in a sick neonate using IMNCI guidelines | S | SH | Y | DOAP session | Document in Log Book | | | |
| PE20.19 | Discuss the etiology, clinical features and management of Neonatal hyperbilirubinemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE20.20 | Identify clinical presentations of common surgical conditions in the new born including TEF, esophageal atresia, anal atresia, cleft lip and palate, congenital diaphragmatic hernia and causes of acute abdomen | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |

Topic: Genito-Urinary system

Number of competencies: (17)

Number of procedures that require certification: (NIL)

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-------------------------|---------------------------|
| PE21.1 | Enumerate the etio-pathogenesis, clinical features, complications and management of Urinary Tract infection in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| PE21.2 | Enumerate the etio-pathogenesis, clinical features, complications and management of acute post-streptococcal Glomerular Nephritis in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| PE21.3 | Discuss the approach and referral criteria to a child with Proteinuria | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| PE21.4 | Discuss the approach and referral criteria to a child with Hematuria | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Human Anatomy | |
| PE21.5 | Enumerate the etio-pathogenesis, clinical features, complications and management of Acute Renal Failure in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| PE21.6 | Enumerate the etio-pathogenesis, clinical features, complications and management of Chronic Renal Failure in Children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| PE21.7 | Enumerate the etio-pathogenesis, clinical features, complications and management of Wilms Tumor | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| PE21.8 | Elicit, document and present a history pertaining to diseases of the Genitourinary tract | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | General Surgery |
| PE21.9 | Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Icthyosis, anasarca | S | SH | Y | Bedside clinics, Skills lab | Document in log book | | | |
| PE21.10 | Analyse symptom and interpret the physical findings and arrive at an appropriate provisional / differential diagnosis | S | SH | Y | Bedside clinics, Skills lab | Log book | | | |
| PE21.11 | Perform and interpret the common analytes in a Urine examination | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | | Biochemistry, Pathology | |
| PE21.12 | Interpret report of Plain X Ray of KUB | S | SH | Y | Bedside clinics, Skills lab | Log book | | Radiodiagnosis | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration | |
|--|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|--|
| PE21.13 | Enumerate the indications for and Interpret the written report of Ultra sonogram of KUB | S | SH | Y | Bedside clinics, Skills lab | Log book | | Radiodiagnosis | | |
| PE21.14 | Recognize common surgical conditions of the abdomen and genitourinary system and enumerate the indications for referral including acute and subacute intestinal obstruction, appendicitis, pancreatitis, perforation intussusception, Phimosis, undescended testis, Chordee, hypospadiasis, Torsion testis, hernia Hydrocele, Vulval Synechiae | S | SH | Y | Bedside clinics, Skills lab | Log book assessment | | | General Surgery | |
| PE21.15 | Discuss and enumerate the referral criteria for children with genitourinary disorder | S | SH | Y | Bedside clinics, Skills lab | Log book assessment | | | | |
| PE21.16 | Counsel / educate a patient for referral appropriately | A/C | SH | Y | DOAP session | Document in Log book | | AETCOM | | |
| PE21.17 | Describe the etiopathogenesis, grading, clinical features and management of hypertension in children | K | KH | Y | Lecture, Small group discussion | Short notes | | | | |
| Topic: Approach to and recognition of a child with possible Rheumatologic problem | | | | | | | | | | |
| | | | | | Number of competencies: (03) | | | Number of procedures that require certification:(NIL) | | |
| PE22.1 | Enumerate the common Rheumatological problems in children. Discuss the clinical approach to recognition and referral of a child with Rheumatological problem | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | | |
| PE22.2 | Counsel a patient with Chronic illness | S | SH | N | Bedside clinics Skills lab | Log book | | | | |
| PE22.3 | Describe the diagnosis and management of common vasculitic disorders including Henoch Schonlein Purpura, Kawasaki Disease, SLE, JIA | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | | |
| Topic: Cardiovascular system- Heart Diseases | | | | | | | | | | |
| | | | | | Number of competencies: (18) | | | Number of procedures that require certification:(NIL) | | |
| PE23.1 | Discuss the Hemodynamic changes, clinical presentation, complications and management of Acyanotic Heart Diseases –VSD, ASD and PDA | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Pathology | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-------------------------------------|---------------------------|
| PE23.2 | Discuss the Hemodynamic changes, clinical presentation, complications and management of Cyanotic Heart Diseases – Fallot’s Physiology | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Pathology | |
| PE23.3 | Discuss the etio-pathogenesis, clinical presentation and management of cardiac failure in infant and children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Pathology | |
| PE23.4 | Discuss the etio-pathogenesis, clinical presentation and management of Acute Rheumatic Fever in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Pathology | |
| PE23.5 | Discuss the clinical features, complications, diagnosis, management and prevention of Acute Rheumatic Fever | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Pathology | |
| PE23.6 | Discuss the etio-pathogenesis, clinical features and management of Infective endocarditis in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Physiology, Pathology, Microbiology | |
| PE23.7 | Elicit appropriate history for a cardiac disease, analyse the symptoms e.g. breathlessness, chest pain, tachycardia, feeding difficulty, failing to thrive, reduced urinary output, swelling, syncope, cyanotic spells, Suck rest cycle, frontal swelling in infants. Document and present | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | |
| PE23.8 | Identify external markers of a cardiac disease e.g. Cyanosis, Clubbing, dependent edema, dental caries, arthritis, erythema rash, chorea, subcutaneous nodules, Osler’s node, Janeway lesions and document | S | SH | Y | Bedside clinics, Skills Lab | Skill Assessment | | | |
| PE23.9 | Record pulse, blood pressure, temperature and respiratory rate and interpret as per the age | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | |
| PE23.10 | Perform independently examination of the cardiovascular system – look for precordial bulge, pulsations in the precordium, JVP and its significance in children and infants, relevance of percussion in Pediatric examination, Auscultation and other system examination and document | S | SH | Y | Bedside clinics, Skills lab | Skill station | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|--|-------------------------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|-------------------------|---------------------------|
| PE23.11 | Develop a treatment plan and prescribe appropriate drugs including fluids in cardiac diseases, anti -failure drugs, and inotropic agents | S | SH | Y | Bedside clinics, Skills lab | log book | | | |
| PE23.12 | Interpret a chest X ray and recognize Cardiomegaly | S | SH | Y | Bedside clinics, Skills lab | Log book entry | | Radiodiagnosis | |
| PE23.13 | Choose and Interpret blood reports in Cardiac illness | S | P | Y | Bedside clinics, Small group discussion | Log book entry | | | |
| PE23.14 | Interpret Pediatric ECG | S | SH | Y | Bedside clinics, Skills lab | Log book entry | | | |
| PE23.15 | Use the ECHO reports in management of cases | S | SH | Y | Bedside clinics | Log book entry | | Radiodiagnosis | |
| PE23.16 | Discuss the indications and limitations of Cardiac catheterization | K | K | N | Small group discussion | Viva voce | | | |
| PE23.17 | Enumerate some common cardiac surgeries like BT shunt, Potts and Waterston's and corrective surgeries | K | K | N | Small group discussion | Viva voce | | | |
| PE23.18 | Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter | A | SH | Y | Small group discussion | Document in Log Book | | AETCOM | |
| Topic:Diarrhoeal diseases and Dehydration | | Number of competencies: (17) | | | Number of procedures that require certification:(03) | | | | |
| PE24.1 | Discuss the etio-pathogenesis, classification, clinical presentation and management of diarrheal diseases in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Microbiology | |
| PE24.2 | Discuss the classification and clinical presentation of various types of diarrheal dehydration | K | KH | 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 Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|---|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|-------------------------------|---------------------------|
| PE24.3 | Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE24.4 | Discuss the types of fluid used in Paediatric diarrheal diseases and their composition | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE24.5 | Discuss the role of antibiotics, antispasmodics, anti-secretory drugs, probiotics, anti-emetics in acute diarrheal diseases | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology, Microbiology | |
| PE24.6 | Discuss the causes, clinical presentation and management of persistent diarrhoea in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| PE24.7 | Discuss the causes, clinical presentation and management of chronic diarrhoea in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE24.8 | Discuss the causes, clinical presentation and management of dysentery in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology, Microbiology | |
| PE24.9 | Elicit, document and present history pertaining to diarrheal diseases | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | | | |
| PE24.10 | Assess for signs of dehydration, document and present | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | | | |
| PE24.11 | Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and refer | S | SH | Y | Bedside clinics, Skills lab | Document in Log book | | | |
| PE24.12 | Perform and interpret stool examination including Hanging Drop | S | SH | N | Bedside clinics, Skills lab | Log book | | Microbiology | |
| PE24.13 | Interpret RFT and electrolyte report | S | SH | Y | Bedside clinics, Small group discussion | Document in Log Book | | | |
| PE24.14 | Plan fluid management as per the WHO criteria | S | SH | Y | Bedside clinics, Small group activity | Skills Station | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|---|-------------------------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|-------------------------|---------------------------|
| PE24.15 | Perform NG tube insertion in a manikin | S | P | Y | DOAP session | Document in Log book | 2 | | |
| PE24.16 | Perform IV cannulation in a model | S | P | Y | DOAP session | Document in Log book | 2 | | |
| PE24.17 | Perform Interosseous insertion model | S | P | Y | DOAP session | Document in Log book | 2 | | |
| Topic: Malabsorption | | Number of competencies: (01) | | | Number of procedures that require certification:(NIL) | | | | |
| PE25.1 | Discuss the etio-pathogenesis, clinical presentation and management of Malabsorption in Children and its causes including celiac disease | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| Topic: Acute and chronic liver disorders | | Number of competencies: (13) | | | Number of procedures that require certification: (NIL) | | | | |
| PE26.1 | Discuss the etio-pathogenesis, clinical features and management of acute hepatitis in children | K | KH | Y | Lecture, Small group activity | Written/ Viva voce | | Pathology, Microbiology | |
| PE26.2 | Discuss the etio-pathogenesis, clinical features and management of Fulminant Hepatic Failure in children | K | KH | Y | Lecture, Small group activity | Written/ Viva voce | | Pathology, Microbiology | |
| PE26.3 | Discuss the etio-pathogenesis, clinical features and management of chronic liver diseases in children | K | KH | Y | Lecture, Small group activity | Written/ Viva voce | | Pathology, Microbiology | |
| PE26.4 | Discuss the etio-pathogenesis, clinical features and management of Portal Hypertension in children | K | KH | Y | Lecture, Small group activity | Written/ Viva voce | | Pathology | |
| PE26.5 | Elicit document and present the history related to diseases of Gastrointestinal system | S | SH | Y | Bedside clinics, Skills lab | Skills Station | | | |
| PE26.6 | Identify external markers for GI and Liver disorders e.g.. Jaundice, Pallor, Gynaecomastia, Spider angioma, Palmar erythema, Icthyosis, Caput medusa, Clubbing, Failing to thrive, Vitamin A and D deficiency | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE26.7 | Perform examination of the abdomen, demonstrate organomegaly, ascites etc. | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | |
| PE26.8 | Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis | S | SH | Y | Bedside clinics, Skill lab | Skill Assessment | | | |
| PE26.9 | Interpret Liver Function Tests, viral markers, ultra sonogram report | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | Pathology | |
| PE26.10 | Demonstrate the technique of liver biopsy in a Perform Liver Biopsy in a simulated environment | S | SH | Y | DOAP session | Document in log book | | | |
| PE26.11 | Enumerate the indications for Upper GI endoscopy | K | K | N | Small group discussion | Viva voce | | | |
| PE26.12 | Discuss the prevention of Hep B infection – Universal precautions and Immunisation | K | KH | Y | Lecture, Small group activity | Written/ Viva voce | | Microbiology | |
| PE26.13 | Counsel and educate patients and their family appropriately on liver diseases | A/C | P | y | Bedside clinics, Skills lab | Document in log book | | | |
| Topic: Pediatric Emergencies – Common Pediatric Emergencies Number of competencies: (35) Number of procedures that require certification:(10) | | | | | | | | | |
| PE27.1 | List the common causes of morbidity and mortality in the under five children | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.2 | Describe the etio-pathogenesis, clinical approach and management of cardiorespiratory arrest in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.3 | Describe the etio-pathogenesis of respiratory distress in children | 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 Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE27.4 | Describe the clinical approach and management of respiratory distress in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.5 | Describe the etio-pathogenesis, clinical approach and management of Shock in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.6 | Describe the etio-pathogenesis, clinical approach and management of Status epilepticus | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.7 | Describe the etio-pathogenesis, clinical approach and management of an unconscious child | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.8 | Discuss the common types, clinical presentations and management of poisoning in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.9 | Discuss oxygen therapy, in Pediatric emergencies and modes of administration | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.10 | Observe the various methods of administering Oxygen | S | KH | Y | Demonstration | Document in log book | | | |
| PE27.11 | Explain the need and process of triage of sick children brought to health facility | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.12 | Enumerate emergency signs and priority signs | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.13 | List the sequential approach of assessment of emergency and priority signs | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.14 | Assess emergency signs and prioritize | S | SH | Y | DOAP session, Skills lab | Skills Assessment | | | |
| PE27.15 | Assess airway and breathing: recognise signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting | S | P | Y | DOAP session, Skills lab | Skills Assessment | 3 | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE27.16 | Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment | S | P | Y | DOAP session, Skills Lab | Skills Assessment | 3 | | |
| PE27.17 | Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate | S | P | Y | DOAP session, Skills Lab | Skills Assessment | 3 | | |
| PE27.18 | Assess airway and breathing: perform assisted ventilation by Bag and mask in a simulated environment | S | P | Y | DOAP session, Skills lab | Skills Assessment | 3 | | |
| PE27.19 | Check for signs of shock i.e. pulse, Blood pressure, CRT | S | P | Y | DOAP session, Skills Lab | Skills Assessment | 3 | | |
| PE27.20 | Secure an IV access in a simulated environment | S | P | Y | DOAP session, Skills Lab | Skills Assessment | 3 | | |
| PF27.21 | Choose the type of fluid and calculate the fluid requirement in shock | S | P | Y | DOAP session, Small group activity | Skills Assessment | 3 | | |
| PE27.22 | Assess level of consciousness & provide emergency treatment to a child with convulsions/ coma - Position an unconscious child - Position a child with suspected trauma - Administer IV/per rectal Diazepam for a convulsing child in a simulated environment | S | P | Y | DOAP session, Skills Lab | Skills Assessment | 3 | | |
| PE27.23 | Assess for signs of severe dehydration | S | P | Y | Bedside clinics, Skills lab | Skill station | 3 | | |
| PE27.24 | Monitoring and maintaining temperature: define hypothermia. Describe the clinical features, complications and management of Hypothermia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.25 | Describe the advantages and correct method of keeping an infant warm by skin to skin contact | 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 Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| PE27.26 | Describe the environmental measures to maintain temperature | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.27 | Assess for hypothermia and maintain temperature | S | SH | Y | Skills lab | Skills Assessment | | | |
| PE27.28 | Provide BLS for children in manikin | S | P | Y | Skills Lab | | 3 | | |
| PE.27.29 | Discuss the common causes, clinical presentation, medico-legal implications of abuse | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE27.30 | Demonstrate confidentiality with regard to abuse | A | SH | Y | Skills lab, standardized patients | Skills Station | | | |
| PE27.31 | Assess child for signs of abuse | S | SH | Y | DOAP session, Skills lab | Log book | | | |
| PE27.32 | Counsel parents of dangerously ill / terminally ill child to break a bad news | S | SH | Y | DOAP session | Document in Log book | | | |
| PE27.33 | Obtain Informed Consent | S | SH | Y | DOAP session | Document in Log book | | | |
| PE27.34 | Willing to be a part of the ER team | A | SH | Y | DOAP session | Document in Log book | | | |
| PE27.35 | Attends to emergency calls promptly | A | SH | Y | DOAP session | Document in Log Book | | | |
| Topic: Respiratory system | | Number of competencies: (20) | | | Number of procedures that require certification: (NIL) | | | | |
| PE28.1 | Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | ENT | |
| PE28.2 | Discuss the etio-pathogenesis of Pharyngo Tonsillitis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | ENT | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE28.3 | Discuss the clinical features and management of Pharyngo Tonsillitis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | ENT | |
| PE28.4 | Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | ENT | |
| PE28.5 | Discuss the etio-pathogenesis, clinical features and management of Epiglottitis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | ENT | |
| PE28.6 | Discuss the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | ENT | |
| PE28.7 | Discuss the etiology, clinical features and management of Stridor in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | ENT | |
| PE28.8 | Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | ENT | |
| PE28.9 | Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor | S | SH | Y | Bedside clinics, skill lab | Skill Assessment | | ENT | |
| PE28.10 | Perform otoscopic examination of the ear | S | SH | Y | DOAP session | Skills Assessment | | ENT | |
| PE28.11 | Perform throat examination using tongue depressor | S | SH | Y | DOAP session | Skills Assessment | | ENT | |
| PE28.12 | Perform examination of the nose | S | SH | Y | DOAP session | Skills Assessment | | ENT | |
| PE28.13 | Analyse the clinical symptoms and interpret physical findings and make a provisional / differential diagnosis in a child with ENT symptoms | S | SH | Y | Bedside clinics | Skills Assessment | | | |
| PE28.14 | Develop a treatment plan and document appropriately in a child with upper respiratory symptoms | S | SH | Y | Bedside clinics | Skills Assessment | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|--|-------------------|------------------------|-------------|--|--|---------------------------------------|-----------------------|---------------------------|
| PE28.15 | Stratify risk in children with stridor using IMNCI guidelines | S | SH | Y | Bedside clinics | Log book documentation | | | |
| PE28.16 | Interpret blood tests relevant to upper respiratory problems | S | SH | N | Bedside clinics, Small group discussion | Log book | | | |
| PE28.17 | Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays | S | SH | Y | Bedside clinics, Small group discussion | Skills Assessment | | ENT, Radiodiagnosis | |
| PE28.18 | Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of lower respiratory infections including bronchiolitis, wheeze associated LRTI Pneumonia and empyema | S | SH | Y | Bedside clinics, Small group discussion, Lecture | Skill Assessment/ Written/ Viva voce | | | |
| PE28.19 | Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of asthma in children | S | SH | Y | Bedside clinics, Small group discussion, Lecture | Skill Assessment/ Written/ Viva voce | | Respiratory Medicine | |
| PE28.20 | Counsel the child with asthma on the correct use of inhalers in a simulated environment | S | SH | Y | Bedside clinics, Small group discussion, Lecture | Skills Assessment/ Written/ Viva voce | | Respiratory Medicine | |
| Topic: Anemia and other Hemato-oncologic disorders in children Number of competencies: (20) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE29.1 | Discuss the etio-pathogenesis, clinical features, classification and approach to a child with anaemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| PE29.2 | Discuss the etio-pathogenesis, clinical features and management of Iron Deficiency anaemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
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| PE29.3 | Discuss the etiopathogenesis, clinical features and management of VIT B12, Folate deficiency anaemia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| PE29.4 | Discuss the etio-pathogenesis, clinical features and management of Hemolytic anemia, Thalassemia Major, Sickle cell anaemia, Hereditary spherocytosis, Auto-immune hemolytic anaemia and hemolytic uremic syndrome | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pathology, Physiology | |
| PE29.5 | Discuss the National Anaemia Control Program | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PE29.6 | Discuss the cause of thrombocytopenia in children: describe the clinical features and management of Idiopathic Thrombocytopenic Purpura (ITP) | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| PE29.7 | Discuss the etiology, classification, pathogenesis and clinical features of Hemophilia in children | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| PE29.8 | Discuss the etiology, clinical presentation and management of Acute Lymphoblastic Leukemia in children | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| PE29.9 | Discuss the etiology, clinical presentation and management of lymphoma in children | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pathology | |
| PE29.10 | Elicit, document and present the history related to Hematology | S | SH | Y | Bedside clinics, Skills lab | Skills Station | | | |
| PE29.11 | Identify external markers for hematological disorders e.g.. Jaundice, Pallor, Petechiae purpura, Ecchymosis, Lymphadenopathy, bone tenderness, loss of weight, Mucosal and large joint bleed | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | | | |
| PE29.12 | Perform examination of the abdomen, demonstrate organomegaly | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE29.13 | Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis | S | SH | Y | Bedside clinics, Skill lab | Skill assessment | | | |
| PE29.14 | Interpret CBC, LFT | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | | | |
| PE29.15 | Perform and interpret peripheral smear | S | SH | Y | DOAP session | Document in log book | | | |
| PE29.16 | Discuss the indications for Hemoglobin electrophoresis and interpret report | K | K | N | Small group discussion | Viva voce | | Biochemistry | |
| PE29.17 | Demonstrate performance of bone marrow aspiration in manikin | S | SH | Y | Skills lab | Document in log Book | | | |
| PE29.18 | Enumerate the referral criteria for Hematological conditions | S | SH | Y | Bedside clinics, Small group activity | Viva voce | | | |
| PE29.19 | Counsel and educate patients about prevention and treatment of anemia | A/C | SH | Y | Bedside clinics, Skills lab | Document in log book | | | |
| PE29.20 | Enumerate the indications for splenectomy and precautions | K | K | N | Small group Activity | Viva voce | | | |

Topic: Systemic Pediatrics-Central Nervous system

Number of competencis: (23)

Number of procedures that require certification:(NIL)

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|--------|--|---|----|---|---------------------------------|--------------------|--|--------------|--|
| PE30.1 | Discuss the etio-pathogenesis, clinical features , complications, management and prevention of meningitis in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| PE30.2 | Distinguish bacterial, viral and tuberculous meningitis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| PE30.3 | Discuss the etio-pathogenesis, classification, clinical features, complication and management of Hydrocephalus in children | 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 Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE30.4 | Discuss the etio-pathogenesis, classification, clinical features, and management of Microcephaly in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.5 | Enumerate the Neural tube defects. Discuss the causes, clinical features, types, and management of Neural Tube defect | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.6 | Discuss the etio-pathogenesis, clinical features, and management of Infantile hemiplegia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.7 | Discuss the etio-pathogenesis, clinical features, complications and management of Febrile seizures in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.8 | Define epilepsy. Discuss the pathogenesis, clinical types, presentation and management of Epilepsy in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.9 | Define status Epilepticus. Discuss the clinical presentation and management | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.10 | Discuss the etio-pathogenesis, clinical features and management of Mental retardation in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.11 | Discuss the etio-pathogenesis, clinical features and management of children with cerebral palsy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.12 | Enumerate the causes of floppiness in an infant and discuss the clinical features, differential diagnosis and management | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.13 | Discuss the etio-pathogenesis, clinical features, management and prevention of Poliomyelitis in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| PE30.14 | Discuss the etio-pathogenesis, clinical features and management of Duchene muscular dystrophy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.15 | Discuss the etio-pathogenesis, clinical features and management of Ataxia in children | 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 Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE30.16 | Discuss the approach to and management of a child with headache | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE30.17 | Elicit document and present an age appropriate history pertaining to the CNS | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | |
| PE30.18 | Demonstrate the correct method for physical examination of CNS including identification of external markers. Document and present clinical findings | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | |
| PE30.19 | Analyse symptoms and interpret physical findings and propose a provisional / differential diagnosis | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | |
| PE30.20 | Interpret and explain the findings in a CSF analysis | S | SH | Y | Small group discussion | Log book | | Microbiology | |
| PE30.21 | Enumerate the indication and discuss the limitations of EEG, CT, MRI | K | K | N | Bedside clinics | Log book | | | |
| PE30.22 | Interpret the reports of EEG, CT, MRI | S | SH | Y | Bedside clinics, Skills lab | Log book | | Radiodiagnosis | |
| PE30.23 | Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure | S | SH | Y | Bedside clinics, Skills lab | Skill Assessment | | | |

Topic: Allergic Rhinitis , Atopic Dermatitis, Bronchial Asthma , Urticaria Angioedema

Number of competencies: (12)

Number of procedures that require certification: (NIL)

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|--------|---|---|----|---|-----------------------------------|--------------------|--|-----|--|
| PE31.1 | Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | ENT | |
| PE31.2 | Recognize the clinical signs of Allergic Rhinitis | S | SH | Y | Bedside clinics' Skill Lab | Skill Assessment | | ENT | |
| PE31.3 | Describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in Children | K | KH | Y | Lecture Small group discussion | Written/ Viva voce | | ENT | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|---|-------------------------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|--|---------------------------|
| PE31.4 | Identify Atopic dermatitis and manage | S | SH | | Bedside clinics Skills lab | Skill Assessment | | Dermatology, Venereology & Leprosy | |
| PE31.5 | Discuss the etio-pathogenesis, clinical types, presentations, management and prevention of childhood Asthma | K | KH | Y | Lecture Small group discussion | Written/ Viva voce | | | |
| PE31.6 | Recognise symptoms and signs of Asthma | S | SH | Y | Bedside clinic, Small group activity | Skill Assessment | | | |
| PE31.7 | Develop a treatment plan for Asthma appropriate to clinical presentation & severity | S | SH | Y | Bedside clinic, Small group activity | Skill Assessment | | | |
| PE31.8 | Enumerate criteria for referral | K | KH | Y | Bedside clinic, Small group activity | Written/ Viva voce | | | |
| PE31.9 | Interpret CBC and CX Ray in Asthma | S | SH | Y | Bedside clinic, Small group activity | Skill Assessment | | | |
| PE31.10 | Enumerate the indications for PFT | K | K | N | Bedside clinic, Small group activity | Viva voce | | | |
| PE31.11 | Observe administration of Nebulisation | S | SH | Y | DOAP session | Document in log book | | | |
| PE31.12 | Discuss the etio-pathogenesis, clinical features and complications and management of Urticaria Angioedema | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Chromosomal Abnormalities | | Number of competencies: (13) | | | Number of procedures that require certification: (NIL) | | | | |
| PE32.1 | Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Down's Syndrome | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Human Anatomy | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|--|
| PE32.2 | Identify the clinical features of Down's Syndrome | S | SH | Y | Bedside clinics, Skills lab | log book | | General Medicine | |
| PE32.3 | Interpret normal Karyotype and recognize Trisomy 21 | S | SH | Y | Bedside clinics, Skills lab | Log book | | | General Medicine |
| PE32.4 | Discuss the referral criteria and Multidisciplinary approach to management | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE32.5 | Counsel parents regarding 1. Present child 2. Risk in the next pregnancy | A/C | SH | N | Bedside clinics, Skills lab | Log book | | | |
| PE32.6 | Discuss the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Turner's Syndrome | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | General Medicine, Obstetrics & Gynaecology | |
| PE32.7 | Identify the clinical features of Turner Syndrome | S | SH | N | Bedside clinics, Skills lab | Log book | | General Medicine | |
| PE32.8 | Interpret normal Karyotype and recognize the Turner Karyotype | S | SH | N | Bedside clinics, Skills lab | log book | | General Medicine, Obstetrics & Gynaecology | |
| 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 & Gynaecology |
| PE32.10 | Counsel parents regarding 1. Present child 2. Risk in the next pregnancy | A/C | SH | N | Bedside clinics, Skills lab | Log book | | | |
| PE32.11 | Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Klinefelter Syndrome | 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 Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE32.12 | Identify the clinical features of Klinefelter Syndrome | S | SH | N | Bedside clinics, Skills lab | Log book | | General Medicine | |
| PE32.13 | Interpret normal Karyotype and recognize the Klinefelter Karyotype | S | SH | N | Bedside clinics, Skills lab | Log book | | General Medicine | |
| Topic: Endocrinology Number of competencies: (11) Number of procedures that require certification: (02) | | | | | | | | | |
| PE33.1 | Describe the etio-pathogenesis clinical features, management of Hypothyroidism in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE33.2 | Recognize the clinical signs of Hypothyroidism and refer | S | SH | Y | Bedside clinics, Skill Lab | Skill Assessment | | | |
| PE33.3 | Interpret and explain neonatal thyroid screening report | S | SH | Y | Bedside clinics, Small group discussion | Skill Assessment | | | |
| PE33.4 | Discuss the etio-pathogenesis, clinical types, presentations, complication and management of Diabetes mellitus in children | K | KH | Y | Lecture, Small group discussions | Written/ Viva voce | | | |
| PE33.5 | Interpret Blood sugar reports and explain the diagnostic criteria for Type 1 Diabetes | S | SH | Y | Bedside clinic, small group activity | Skill Assessment | | | |
| PE33.6 | Perform and interpret Urine Dip Stick for Sugar | S | P | Y | DOAP session | Skill Assessment | 3 | Biochemistry | |
| PE33.7 | Perform genital examination and recognize Ambiguous Genitalia and refer appropriately | S | SH | Y | Bedside clinic Skills lab | Skill Assessment | | | |
| PE33.8 | Define precocious and delayed Puberty | 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 Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|
| PE33.9 | Perform Sexual Maturity Rating (SMR) and interpret | S | SH | Y | Bedside clinics Skills Lab | Skill Assessment | | | |
| PE33.10 | Recognize precocious and delayed Puberty and refer | S | SH | Y | Bedside clinics Skills Lab | log book | | | |
| PE33.11 | Identify deviations in growth and plan appropriate referral | S | P | Y | Bedside clinics Skills Lab | log book | 2 | | |
| Topic:Vaccine preventable Diseases - Tuberculosis Number of competencies: (20) Number of procedures that require certification: (03) | | | | | | | | | |
| PE34.1 | Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | Respiratory Medicine |
| PE34.2 | Discuss the various diagnostic tools for childhood tuberculosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | Respiratory Medicine |
| PE34.3 | Discuss the various regimens for management of Tuberculosis as per National Guidelines | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology, Community Medicine, Pharmacology | Respiratory Medicine |
| PE34.4 | Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology, Community Medicine, Pharmacology | Respiratory Medicine |
| PE34.5 | Able to elicit, document and present history of contact with tuberculosis in every patient encounter | S | SH | Y | Bedside clinics, Skill lab | Skill Assessment | | | Respiratory Medicine |
| PE34.6 | Identify a BCG scar | S | P | Y | Bedside clinics, Skills lab | Skill Assessment | 3 | Microbiology | Respiratory Medicine |
| PE34.7 | Interpret a Mantoux test | S | P | Y | Bedside clinics Skills lab | Skill assessment | 3 | Microbiology | Respiratory Medicine |
| PE34.8 | Interpret a Chest Radiograph | S | SH | Y | Bedside clinics Skills lab | Skill assessment | | Radiodiagnosis | Respiratory Medicine |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|---|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE34.9 | Interpret blood tests in the context of laboratory evidence for tuberculosis | S | SH | N | Bedside clinics, Small group discussion | log book | | Microbiology | Respiratory Medicine |
| PE34.10 | Discuss the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum , CSF, FNAC | K | KH | Y | Bedside clinics, Small group discussion | Written/ Viva voce | | Microbiology | Respiratory Medicine |
| PE34.11 | Perform AFB staining | S | P | Y | DOAP session | Log book/Journal | 3 | Microbiology | Respiratory Medicine |
| PE34.12 | Enumerate the indications and discuss the limitations of methods of culturing M.Tuberculi | K | KH | Y | Small group discussion | Written/ Viva voce | | Microbiology | Respiratory Medicine |
| PE34.13 | Enumerate the newer diagnostic tools for Tuberculosis including BACTEC CBNAAT and their indications | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | |
| PE34.14 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of fever in children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| PE34.15 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with exanthematous illnesses like Measles, Mumps, Rubella & Chicken pox | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| PE34.16 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Diphtheria, Pertussis, Tetanus. | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| PE34.17 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Typhoid | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|---|-------------------------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|------------------------------|---------------------------|
| PE34.18 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Dengue, Chikungunya and other vector born diseases | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| PE34.19 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of children with Common Parasitic infections, malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis, giardiasis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| PE34.20 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Rickettsial diseases | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Microbiology | |
| Topic: The role of the physician in the community | | Number of competencies: (01) | | | Number of procedures that require certification : (NIL) | | | | |
| PE35.1 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as they pertain to health care in children (including parental rights and right to refuse treatment) | K | KH | Y | Small group discussion | Written/ Viva voce | | | |
| <p>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</p> | | | | | | | | | |
| Integration | | | | | | | | | |
| Human Anatomy | | | | | | | | | |
| 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 |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|
| 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 |
| AN25.9 | 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 |
| AN63.2 | Describe anatomical basis of congenital hydrocephalus | K | KH | N | Lecture | Written | | Pediatrics | Physiology |
| AN64.3 | Describe various types of open neural tube defects with its embryological basis | K | KH | N | Lecture | Written/ Viva voce | | Obstetrics & Gynaecology, Pediatrics | |
| AN74.1 | Describe the various modes of inheritance with examples | K | KH | Y | Lecture | Written | | General Medicine, Pediatrics | |
| 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 | |
| AN74.4 | 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 | |
| AN75.1 | Describe the structural and numerical chromosomal aberrations | K | KH | Y | Lecture | Written | | Pediatrics | |
| AN75.2 | Explain the terms mosaics and chimeras with example | K | KH | N | Lecture | Written | | Pediatrics | |
| AN75.3 | Describe the genetic basis & clinical features of Prader Willi syndrome, Edward syndrome & Patau syndrome | K | KH | N | Lecture | Written | | Pediatrics | |
| AN75.4 | Describe genetic basis of variation; polymorphism and mutation | K | KH | Y | Lecture | Written | | Pediatrics | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------------------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|
| AN75.5 | Describe the principles of genetic counselling | K | KH | Y | Lecture | Written | | Pediatrics, Obstetrics & Gynaecology | |
| Physiology | | | | | | | | | |
| PY11.6 | Describe physiology of Infancy | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| PY11.9 | Interpret growth charts | K | KH | Y | Small group teaching | Practical/OSPE/ Viva voce | | Pediatrics | |
| PY11.10 | Interpret anthropometric assessment of infants | K | KH | Y | Small group teaching | Practical/OSPE/Viva voce | | Pediatrics | |
| Biochemistry | | | | | | | | | |
| BI5.3 | Describe the digestion and absorption of dietary proteins | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| BI5.4 | Describe common disorders associated with protein metabolism | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| BI7.3 | Describe gene mutations and basic mechanism of regulation of gene expression | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| 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 | |
| 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 | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------------------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|
| 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 | |
| BI10.5 | Describe antigens and concepts involved in vaccine development | K | KH | Y | Lecture , Small group discussion | Written/ Viva voce | | Pathology, Pediatrics, Microbiology | |
| Pathology | | | | | | | | | |
| PA12.2 | Describe the pathogenesis of disorders caused by protein calorie malnutrition and starvation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Biochemistry, Pediatrics | |
| PA21.2 | Classify and describe the etiology, pathogenesis and pathology of vascular and platelet disorders including ITP and hemophilias | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| 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 | |
| PA28.14 | Classify and describe the etiology, genetics, pathogenesis, pathology, presenting features, progression and spread of renal tumors | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| 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 | |
| PA35.2 | Classify and describe the etiology, genetics, pathogenesis, pathology, presentation sequelae and complications of CNS tumors | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| Microbiology | | | | | | | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------------------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-------------------------------|---------------------------|
| MI1.8 | Describe the mechanisms of immunity and response of the host immune system to infections | K | KH | Y | Lecture | Written/ Viva voce | | Pediatrics | Pathology |
| MI1.9 | Discuss the immunological basis of vaccines and describe the Universal Immunisation schedule | K | KH | Y | Lecture | Written/ Viva voce | | Paediatrics | |
| MI1.10 | Describe the immunological mechanisms in immunological disorder (hypersensitivity, autoimmune disorders and immunodeficiency states) and discuss the laboratory methods used in detection | K | KH | Y | Lecture | Written/ Viva voce | | Paediatrics | |
| 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 | |
| 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 | |
| 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 | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------------------------|---|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|---|---------------------------|
| 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 |
| PH1.56 | Describe basic aspects of Geriatric and Pediatric pharmacology | K | KH | Y | Lecture | Written/ Viva voce | | Pediatrics | |
| 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 | | Pharmacology, General Medicine | |
| Community Medicine | | | | | | | | | |
| 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 session | 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 session | Skill Assessment | | General Medicine, Pediatrics | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|--|-------------------|------------------------|-------------|---|--------------------------------------|---------------------------------------|------------------------------|---------------------------|
| 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 | |
| CM5.6 | Enumerate and discuss the National Nutrition Policy, important national nutritional Programs including the Integrated Child Development Services Scheme (ICDS) etc | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| CM5.8 | Describe and discuss the importance and methods of food fortification and effects of additives and adulteration | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| CM6.1 | Formulate a research question for a study | K | KH | Y | Small group, Lecture, DOAP session | 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 session | 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 session | 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 session | Written/ Viva voce/ Skill Assessment | | General Medicine, Pediatrics | |
| 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 |
| CM8.3 | 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 | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--------------------------------------|---------------------------|
| 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 | |
| CM9.2 | Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates | S | SH | Y | Lecture, Small group discussion, DOAP sessions | Skill assessment | | Obstetrics & Gynaecology, Pediatrics | |
| CM10.1 | Describe the current status of Reproductive, maternal, newborn and Child Health | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | Obstetrics & Gynaecology, Pediatrics | |
| CM10.2 | Enumerate and describe the methods of screening high risk groups and common health problems | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | Obstetrics & Gynaecology, Pediatrics | |
| CM10.3 | Describe local customs and practices during pregnancy, childbirth, lactation and child feeding practices | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | Obstetrics & Gynaecology, Pediatrics | |
| CM10.4 | Describe the reproductive, maternal, newborn & child health (RMCH); child survival and safe motherhood interventions | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | Obstetrics & Gynaecology, Pediatrics | |
| CM10.5 | Describe Universal Immunization Program; Integrated Management of Neonatal and Childhood Illness (IMNCI) and other existing Programs | K | KH | Y | Small group discussion, Lecture | Written/ Viva voce | | Pediatrics | |
| Forensic Medicine & Toxicology | | | | | | | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|--|---------------------------|
| 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, Paediatrics | |
| FM2.27 | Define and discuss infanticide, foeticide and stillbirth | K | KH | Y | Lecture, Small group discussions | Written/ Viva voce | | Pediatrics | |
| FM2.28 | Describe and discuss signs of intrauterine death, signs of live birth, viability of foetus, age determination of foetus, DOAP session of ossification centres, Hydrostatic test, Sudden infants death syndrome and Munchausen's syndrome by proxy | K | KH | Y | Lecture, Small group discussions, Autopsy, DOAP session | Written/ Viva voce/ OSCE | | Pediatrics, Human Anatomy | |
| FM3.29 | Describe and discuss child abuse and battered baby syndrome | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| Dermatology, Venereology & Leprosy | | | | | | | | | |
| DR5.1 | Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| DR5.2 | Identify and differentiate scabies from other lesions | S | SH | Y | Bedside clinic | Skill assessment | | Pediatrics | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|--|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|--|---------------------------|
| DR5.3 | Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | Pharmacology |
| DR6.1 | Describe the etiology, pathogenesis and diagnostic features of pediculosis | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | Microbiology |
| DR6.2 | Identify and differentiate pediculosis from other skin lesions | S | SH | Y | Bedside clinic | Skill assessment | | Pediatrics | |
| DR7.1 | Describe the etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of dermatophytes | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | Microbiology |
| DR8.1 | Describe the etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of common viral infections of the skin | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | Microbiology |
| DR17.1 | Enumerate and identify the cutaneous findings in vitamin A deficiency | K/S | SH | Y | Lecture, Small group discussion, Bedside clinic | Skill assessment/ Viva voce | | General Medicine, Pediatrics, Biochemistry | |
| DR17.2 | Enumerate and describe the various skin changes in Vitamin B complex deficiency | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine, Pediatrics, Biochemistry | |
| DR17.3 | Enumerate and describe the various changes in Vitamin C deficiency | K | KH | Y | Lecture | 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 | |

Anesthesiology

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|-------------------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|---------------------------------|---------------------------|
| 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 | |
| Psychiatry | | | | | | | | | |
| PS14.1 | Enumerate and describe the magnitude and etiology of psychiatric disorders occurring in childhood and adolescence | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| PS14.2 | Enumerate, elicit, describe and document clinical features in patients with psychiatric disorders occurring in childhood and adolescence | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Pediatrics | |
| PS14.3 | Describe the treatment of stress related disorders including behavioural, psychosocial and pharmacologic therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| PS14.4 | Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Pediatrics | |
| PS14.5 | Enumerate and describe the pharmacologic basis and side effects of drugs used in psychiatric disorders occurring in childhood and adolescence | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| PS15.1 | Describe the aetiology and magnitude of mental retardation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| PS15.2 | Describe and discuss intelligence quotient and its measurement | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| PS15.3 | Elicit and document a history and clinical examination and choose appropriate investigations in a patient with mental retardation | K/S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Pediatrics | |
| PS15.4 | Describe the psychosocial interventions and treatment used in mental retardation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|------------------------------------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--------------------------|---------------------------|
| General Medicine | | | | | | | | | |
| 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 discussions | 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 discussions | Written/ Viva voce | | Physiology, Biochemistry | Pediatrics |
| 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 |
| Obstetrics & Gynecology | | | | | | | | | |
| OG1.2 | Define and discuss perinatal mortality and morbidity including perinatal and neonatal mortality and morbidity audit | K | KH | Y | Lecture, Small group discussion | Short notes | | Community Medicine | Pediatrics |
| OG18.1 | Describe and discuss the assessment of maturity of the newborn, diagnosis of birth asphyxia, principles of resuscitation, common problems | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |
| OG18.2 | Demonstrate the steps of neonatal resuscitation in a simulated environment | S | SH | Y | DOAP session | Skill assessment | | | Pediatrics |
| OG18.3 | Describe and discuss the diagnosis of birth asphyxia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |
| OG18.4 | Describe the principles of resuscitation of the newborn and enumerate the common problems encountered | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| Physical Medicine & Rehabilitation | | | | | | | | | |
| PM3.1 | Describe and discuss the clinical features, types, evaluation, diagnosis and management of cerebral palsy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Human Anatomy | Pediatrics |
| PM3.2 | Recognize, describe and discuss the spectrum of multiple disability : cognitive, motor, visual and hearing in cerebral palsy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |
| PM3.3 | Recognize, describe and discuss the role of special education in children with learning disabilities | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |
| PM3.4 | Demonstrate spasticity, rigidity and dystonia in children with cerebral palsy | S | SH | Y | DOAP session, Small group discussion, Bedside clinic | Skill assessment | | | Pediatrics |
| PM3.5 | Enumerate the indications and describe the therapies for spasticity including medications, serial casts, nerve blocks, botulinum toxin injections | K | KH | Y | Lecture, Small group discussion | | | Pharmacology | Pediatrics, Orthopedics |
| PM3.6 | Enumerate the indications and describe prevention of joint subluxations and contractures by proper positioning, and use of special chairs, and appliances | K | KH | Y | DOAP session, Small group discussion, Bedside clinic | | | | Pediatrics |
| PM3.7 | Enumerate the first aid measures to be used in patients with seizures | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |
| PM4.2 | Describe and discuss the principles of management of chronic pain and role of common modalities (moist heat, ultrasound, Short wave diathermy) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |

PSYCHIATRY (CODE: PS)

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|---|---|-------------------------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|----------------------|---------------------------|
| PSYCHIATRY | | | | | | | | | |
| Topic: Doctor patient relationship | | Number of competencies: (04) | | | Number of procedures that require certification: (NIL) | | | | |
| PS1.1 | Establish rapport and empathy with patients | A/C | SH | Y | DOAP session | Skill station | | | |
| PS1.2 | Describe the components of communication | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS1.3 | Demonstrate breaking of bad news in a simulated environment | A/C | SH | Y | DOAP session | Skill station | | | |
| PS1.4 | Describe and demonstrate the importance of confidentiality in patient encounters | A/C | SH | Y | DOAP session | Faculty observation | | | |
| Topic: Mental health | | Number of competencies: (05) | | | Number of procedures that require certification:(NIL) | | | | |
| PS2.1 | Define stress and describe its components and causes | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS2.2 | Describe the role of time management, study skills, balanced diet and sleep wake habits in stress avoidance | K | KH | Y | Lecture, Small group discussion | Viva voce | | | |
| PS2.3 | Define and describe the principles and components of learning memory and emotions | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS2.4 | Describe the principles of personality development and motivation | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS2.5 | Define and distinguish normality and abnormality | K | K | Y | Lecture, Small group discussion | Viva voce | | | |
| Topic: Introduction to psychiatry | | Number of competencies: (12) | | | Number of procedures that require certification: (NIL) | | | | |
| PS3.1 | Describe the growth of psychiatry as a medical specialty, its history and contribution to society | K | KH | Y | Lecture | Written/ Viva voce | | | |

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|-----------------------------------|---|-------------------------------------|------------------------|---------------|---|--|---------------------------------------|----------------------|---------------------------|
| PS3.2 | Enumerate, describe and discuss important signs & symptoms of common mental disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS3.3 | Elicit, present and document a history in patients presenting with a mental disorder | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS3.4 | Describe the importance of establishing rapport with patients | S/A | SH | Y | Bedside clinic, DOAP session | Skill assessment/ Faculty observation | | | |
| PS3.5 | Perform, demonstrate and document a minimal examination | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS3.6 | Describe and discuss biological, psychological & social factors & their interactions in the causation of mental disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| 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 |
| PS3.9 | Describe the steps and demonstrate in a simulated environment family education in patients with organic psychiatric disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS3.10 | Enumerate and describe the pharmacologic basis and side effects of drugs used in psychiatric disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS3.11 | Enumerate the appropriate conditions for specialist referral in patients with psychiatric disorders | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS3.12 | Describe, discuss and distinguish psychotic & non-psychotic (Mood, Anxiety, Stress related) disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Psychotic disorders | | Number of competencies: (07) | | | Number of procedures that require certification: (NIL) | | | | |
| PS4.1 | Describe the magnitude and etiology of alcohol and substance use disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | 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 |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|-----------------------------------|---|-------------------------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 |
| PS4.5 | Demonstrate family education in a patient with alcohol and substance abuse in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | AETCOM | |
| 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 |
| PS4.7 | Enumerate the appropriate conditions for specialist referral in patients with alcohol and substance abuse disorders | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Psychotic disorders | | Number of competencies: (06) | | | Number of procedures that require certification: (NIL) | | | | |
| PS5.1 | Classify and describe the magnitude and etiology of schizophrenia & other psychotic disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS5.2 | Enumerate, elicit, describe and document clinical features, positive s | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS5.3 | Describe the treatment of schizophrenia including behavioural and pharmacologic therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PS5.4 | Demonstrate family education in a patient with schizophrenia in a simulated environment | K/S/A/C | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS5.5 | Enumerate and describe the pharmacologic basis and side effects of drugs used in schizophrenia | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PS5.6 | Enumerate the appropriate conditions for specialist referral in patients with psychotic disorders | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Depression | | Number of competencies: (07) | | | Number of procedures that require certification: (NIL) | | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|---------------------------------|---|-------------------------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|----------------------|---------------------------|
| PS6.1 | Classify and describe the magnitude and etiology of depression | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS6.2 | Enumerate, elicit, describe and document clinical features in patients with depression | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS6.3 | Enumerate and describe the indications and interpret laboratory and other tests used in depression | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS6.4 | Describe the treatment of depression including behavioural and pharmacologic therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PS6.5 | Demonstrate family education in a patient with depression in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS6.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in depression | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PS6.7 | Enumerate the appropriate conditions for specialist referral in patients with depression | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Bipolar disorders | | Number of competencies: (07) | | | Number of procedures that require certification: (NIL) | | | | |
| PS7.1 | Classify and describe the magnitude and etiology of bipolar disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS7.2 | Enumerate, elicit, describe and document clinical features in patients with bipolar disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS7.3 | Enumerate and describe the indications and interpret laboratory and other tests used in bipolar disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS7.4 | Describe the treatment of bipolar disorders including behavioural and pharmacologic therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PS7.5 | Demonstrate family education in a patient with bipolar disorders in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS7.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in bipolar disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|--|--|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------|---------------------------|
| PS7.7 | Enumerate the appropriate conditions for specialist referral in patients with bipolar disorders | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Anxiety disorders Number of competencies: (07) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PS8.1 | Enumerate and describe the magnitude and etiology of anxiety disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS8.2 | Enumerate, elicit, describe and document clinical features in patients with anxiety disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS8.3 | Enumerate and describe the indications and interpret laboratory and other tests used in anxiety disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS8.4 | Describe the treatment of anxiety disorders including behavioural and pharmacologic therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PS8.5 | Demonstrate family education in a patient with anxiety disorders in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS8.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in anxiety disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PS8.7 | Enumerate the appropriate conditions for specialist referral in anxiety disorders | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Stress related disorders Number of competencies: (07) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PS9.1 | Enumerate and describe the magnitude and etiology of stress related disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS9.2 | Enumerate, elicit, describe and document clinical features in patients with stress related disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS9.3 | Enumerate and describe the indications and interpret laboratory and other tests used in stress related disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS9.4 | Describe the treatment of stress related disorders including behavioural and psychosocial therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS9.5 | Demonstrate family education in a patient with stress related disorders in a simulated environment | 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 Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|---|---|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------|---------------------------|
| PS9.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in stress related disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS9.7 | Enumerate the appropriate conditions for specialist referral in stress disorders | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Somatoform disorders Number of competencies: (07) Number of procedures that require certification: (NIL) | | | | | | | | | |
| 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 |
| PS10.5 | Demonstrate family education in a patient with somatoform, dissociative and conversion disorders in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| 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 |
| PS10.7 | Enumerate the appropriate conditions for specialist referral in patients with somato form dissociative and conversion disorders | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Personality disorders Number of competencies: (07) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PS11.1 | Enumerate and describe the magnitude and etiology of personality disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS11.2 | Enumerate, elicit, describe and document clinical features in patients with personality disorders | 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 Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|---------------------------------------|---|-------------------------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|----------------------|---------------------------|
| PS11.3 | Enumerate and describe the indications and interpret laboratory and other tests used in personality disorders | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS11.4 | Describe the treatment of personality disorders including behavioural, psychosocial and pharmacologic therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PS11.5 | Demonstrate family education in a patient with personality disorders in a simulated environment | S/A/C | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS11.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in personality disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PS11.7 | Enumerate the appropriate conditions for specialist referral | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Psychosomatic disorders | | Number of competencies: (07) | | | Number of procedures that require certification: (NIL) | | | | |
| 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 |
| PS12.5 | Demonstrate family education in a patient with psychosomatic disorders in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | | |
| PS12.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in psychosomatic disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharmacology | |
| PS12.7 | Enumerate the appropriate conditions for specialist referral | K | K | 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 Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|--|---|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------|---------------------------|
| PS14.3 | Describe the treatment of stress related disorders including behavioural, psychosocial and pharmacologic therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| PS14.4 | Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Pediatrics | |
| PS14.5 | Enumerate and describe the pharmacologic basis and side effects of drugs used in psychiatric disorders occurring in childhood and adolescence | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| PS14.6 | Enumerate the appropriate conditions for specialist referral in children and adolescents with psychiatric disorders | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Mental retardation Number of competencies: (04) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PS15.1 | Describe the aetiology and magnitude of mental retardation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| PS15.2 | Describe and discuss intelligence quotient and its measurement | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| PS15.3 | Elicit and document a history and clinical examination and choose appropriate investigations in a patient with mental retardation | K/S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Pediatrics | |
| PS15.4 | Describe the psychosocial interventions and treatment used in mental retardation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| Topic: Psychiatric disorders in the elderly Number of competencies: (05) Number of procedures that require certification: (NIL) | | | | | | | | | |
| 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 | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|---------------------------------------|---|--------------------------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 | |
| PS16.5 | Enumerate the appropriate conditions for specialist referral in psychiatric disorders in the elderly | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Psychiatric emergencies | | Number of competencies: (03) | | | Number of procedures that require certification: (NIL) | | | | |
| PS17.1 | Enumerate and describe the recognition and clinical presentation of psychiatric emergencies (Suicide, Deliberate Self Harm, Violent behaviour) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS17.2 | Describe the initial stabilisation and management of psychiatric emergencies | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS17.3 | Enumerate the appropriate conditions for specialist referral in patients with psychiatric emergencies | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Therapeutics | | Number of competencies: (03) | | | Number of procedures that require certification: (NIL) | | | | |
| PS18.1 | Enumerate the indications and describe the pharmacology, dose and side effects of commonly use drugs in psychiatric disorders | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pharamcology | |
| PS18.2 | Enumerate the indications for modified electroconvulsive therapy | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| PS18.3 | Enumerate and describe the principles and role of psychosocial interventions in psychiatric illness including psychotherapy, behavioural therapy and rehabilitation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Miscellaneous | | Number of competencies: (06) | | | Number of procedures that require certification: (NIL) | | | | |
| PS19.1 | Describe the relevance, role and status of community psychiatry | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|---|---|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|--|---------------------------|
| PS19.2 | Describe the objectives strategies and contents of the National Mental Health Act | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PS19.3 | Describe and discuss the basic legal and ethical issues in psychiatry | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Forensic Medicine & Toxicology, AETCOM | |
| PS19.4 | Enumerate and describe the salient features of the prevalent mental health laws in India | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PS19.5 | Describe the concept and principles of preventive psychiatry and mental health promotion (positive mental health); and community education | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Community Medicine | |
| PS19.6 | Enumerate and describe the identifying features and the principles of participatory management of mental illness occurring during and after disasters | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| <p>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</p> | | | | | | | | | |

Integration

| Physiology | | | | | | | | | |
|--------------|--|---|----|---|---------------------------------|-------------------|--|------------|---------------|
| PY10.7 | Describe and discuss functions of cerebral cortex, basal ganglia, thalamus, hypothalamus, cerebellum and limbic system and their abnormalities | K | KH | Y | Lecture, Small group discussion | Written/Viva voce | | Psychiatry | Human Anatomy |
| PY10.8 | Describe and discuss behavioural and EEG characteristics during sleep and mechanism responsible for its production | K | KH | Y | Lecture, Small group discussion | Written/Viva voce | | Psychiatry | |
| PY10.9 | Describe and discuss the physiological basis of memory, learning and speech | K | KH | Y | Lecture, Small group discussion | Written/Viva voce | | Psychiatry | |
| PY10.12 | Identify normal EEG forms | S | S | Y | Small group teaching | OSPE/Viva voce | | Psychiatry | |
| Pharmacology | | | | | | | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|---|--|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|------------------------|---------------------------|
| PH1.19 | Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of the drugs which act on CNS, (including anxiolytics, sedatives & hypnotics, antipsychotic, antidepressant drugs, antimaniacs, opioid agonists and antagonists, drugs used for neurodegenerative disorders, antiepileptics drugs) | K | KH | Y | Lecture | Written/ Viva voce | | Psychiatry, Physiology | |
| PH1.20 | Describe the effects of acute and chronic ethanol intake. Describe the symptoms and management of methanol and ethanol poisonings | K | KH | Y | Lecture, Small group discussions | Written/ Viva voce | | Psychiatry | |
| PH1.22 | Describe drugs of abuse (dependence, addiction, stimulants, depressants, psychedelics, drugs used for criminal offences) | K | KH | Y | Lecture, Small group discussions | Written/Viva voce | | Psychiatry | Forensic Medicine |
| PH1.23 | Describe the process and mechanism of drug deaddiction | K/ S | KH | Y | Lecture, Small group discussions | Written/Viva voce | | Psychiatry | |
| PH5.5 | Demonstrate an understanding of the caution in prescribing drugs likely to produce dependence and recommend the line of management | K | KH | Y | Small group discussion | Short note/Viva voce | | Psychiatry | |
| PH5.6 | Demonstrate ability to educate public & patients about various aspects of drug use including drug dependence and OTC drugs. | A/C | SH | Y | Small group discussion | Skill station | | Psychiatry | |
| Community Medicine | | | | | | | | | |
| CM15.1 | Define and describe the concept of mental Health | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry | |
| CM15.2 | Describe warning signals of mental health disorder | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry | |
| CM15.3 | Describe National Mental Health program | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry | |
| Forensic Medicine & Toxicology | | | | | | | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|-------------------------|--|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|--------------------------------------|---------------------------|
| FM3.17 | Describe and discuss the sexual perversions fetichism, transvestism, voyeurism, sadism, necrophagia, masochism, exhibitionism, frotteurism, Necrophilia | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Obstetrics & Gynaecology, Psychiatry | |
| FM5.1 | Classify common mental illnesses including post-traumatic stress disorder (PTSD) | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry | |
| FM5.2 | Define, classify and describe delusions, hallucinations, illusion, lucid interval and obsessions with exemplification | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry | |
| FM5.3 | Describe civil and criminal responsibilities of a mentally ill person | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry | |
| FM5.4 | Differentiate between true insanity from feigned insanity | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry | |
| FM5.5 | Describe & discuss Delirium tremens | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry, General Medicine | |
| FM5.6 | Describe the Indian Mental Health Act, 1987 with special reference to admission, care and discharge of a mentally ill person | K | K/KH | N | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry | |
| General Medicine | | | | | | | | | |
| 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 |
| 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 | |
| IM24.2 | Perform multidimensional geriatric assessment that includes medical, psycho-social and functional components | S | SH | Y | Bedside clinic, DOAP session | Skill assessment | | Psychiatry | |
| IM24.5 | 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 |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|-------------------|---|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------|---------------------------|
| 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 |
| IM24.19 | 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 |
| Pediatrics | | | | | | | | | |
| PE1.2 | Discuss and describe the patterns of growth in infants, children and Adolescents | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE1.3 | Discuss and describe the methods of assessment of growth including use of WHO and Indian national standards. Enumerate the parameters used for assessment of physical growth in infants, children and adolescents | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE1.5 | Define development and discuss the normal developmental milestones with respect to motor, behaviour, social, adaptive and language | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE5.4 | Describe the clinical features, diagnosis and management of Breath Holding spells | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE5.5 | Describe the clinical features, diagnosis and management of Temper tantrums | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE5.7 | Describe the clinical features, diagnosis and management of Fussy infant | K | K | N | Lecture, Small group discussion | Written | | | Psychiatry |
| PE5.10 | Discuss the role of child guidance clinic in children with Behavioral problems and the referral criteria | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE6.2 | Describe the physical , physiological and psychological changes during Adolescence (Puberty) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|---|--|-------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|--------------------------------------|------------------------------|
| PE6.4 | Describe Adolescent sexuality and common problems related to it | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE6.5 | Explain Adolescent Nutrition and common nutritional problems | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE6.6 | Discuss the common Adolescent Eating disorders (Anorexia Nervosa, Bulimia) | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| PE6.7 | Describe the common mental health problems during Adolescence | K | KH | Y | Lecture, Small Group discussion | Written/ Viva voce | | | Psychiatry |
| PE6.13 | Enumerate the prevalence and the importance of recognition of sexual drug abuse in adolescents and children | K | K | N | Lecture, Small group discussion | Written/ Viva voce | | | Psychiatry |
| Physical Medicine & Rehabilitation | | | | | | | | | |
| 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 discussion | Written/ Viva voce | | | General Medicine, Psychiatry |
| Dermatology, Venereology & Leprosy | | | | | | | | | |
| 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 |
| Forensic Medicine & Toxicology | | | | | | | | | |
| FM2.5 | Discuss moment of death, modes of death- coma, asphyxia and syncope | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Psychiatry | Pathology |
| FM3.14 | SEXUAL OFFENCES Describe and discuss the examination of the victim of an alleged case of rape, and the preparation of report, framing the opinion and preservation and despatch of trace evidences in such cases | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic, DOAP session | Written/ Viva voce / OSCE | | Obstetrics & Gynaecology, Psychiatry | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical integration | Horizontal Integration |
|--------|---|-------------------|------------------------|---------------|---|--------------------------------|--|--------------------------------------|---------------------------|
| FM3.15 | SEXUAL OFFENCES Describe and discuss examination of accused and victim of sodomy, preparation of report, framing of opinion, preservation and despatch of trace evidences in such cases | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic, DOAP session | Written/ Viva voce / OSCE | | Obstetrics & Gynaecology, Psychiatry | |
| FM3.16 | SEXUAL OFFENCES Describe and discuss adultery and unnatural sexual offences- sodomy, incest, lesbianism, buccal coitus, bestiality, indecent assault and preparation of report, framing the opinion and preservation and despatch of trace evidences in such cases | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Obstetrics & Gynaecology, Psychiatry | |

DERMATOLOGY, VENEROLOGY AND LEPROSY (CODE: DR)

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|---|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------|---------------------------|
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DERMATOLOGY, VENEREOLOGY & LEPROSY

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|--|--|-------------------------------------|----|---|---|---|--|--|--|
| Topic: Acne | | Number of competencies:(03) | | | Number of procedures that require certificaion:(NIL) | | | | |
| DR1.1 | Enumerate the causative and risk factors of acne | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| DR1.2 | Identify and grade the various common types of acne | S | SH | Y | Bedside clinic | Skill assessment | | | |
| DR1.3 | Describe the treatment and preventive measures for various kinds of acne | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Vitiligo | | Number of competencies: (02) | | | Number of procedures that require certificaion:(NIL) | | | | |
| DR2.1 | Identify and differentiate vitiligo from other causes of hypopigmented lesions | S | S | Y | Bedside clinic | Skill assessment | | | |
| DR2.2 | Describe the treatment of vitiligo | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Papulosquamous disorders | | Number of competencies:(03) | | | Number of procedures that require certificaion:(NIL) | | | | |
| DR3.1 | Identify and distinguish psoriatic lesions from other causes | K | SH | Y | Bedside clinic | Skill assessment/ Written/ Viva voce | | | |
| DR3.2 | Demonstrate the grattage test | S | SH | Y | Bedside clinic | Skill assessment | | | |
| DR3.3 | Enumerate the indications for and describe the various modalities of treatment of psoriasis including topical, systemic and phototherapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Lichen Planus | | Number of competencies:(02) | | | Number of procedures that require certificaion:(NIL) | | | | |
| DR4.1 | Identify and distinguish lichen planus lesions from other causes | S | SH | Y | Bedside clinic | Skill assessment | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------------------------------|--|--------------------------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|----------------------|-------------------------------|
| DR4.2 | Enumerate and describe the treatment modalities for lichen planus | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| Topic: Scabies | | Number of competencies:(03) | | | Number of procedures that require certificaion:(NIL) | | | | |
| DR5.1 | Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies in adults and children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | |
| DR5.2 | Identify and differentiate scabies from other lesions in adults and children | S | SH | Y | Bedside clinic | Skill assessment | | Pediatrics | |
| DR5.3 | Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | Pharmacology |
| Topic: Pediculosis | | Number of competencies : (02) | | | Number of procedures that require certificaion:(NIL) | | | | |
| DR6.1 | Describe the etiology pathogenesis and diagnostic features of pediculosis in adults and children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | Microbiology |
| DR6.2 | Identify and differentiate pediculosis from other skin lesions in adults and children | S | SH | Y | Bedside clinic | Skill assessment | | Pediatrics | |
| Topic: Fungal Infections | | Number of competencies: (03) | | | Number of procedures that require certificaion:(NIL) | | | | |
| DR7.1 | Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of dermatophytes in adults and children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | Microbiology |
| DR7.2 | Identify Candida species in fungal scrapings and KOH mount | S | SH | Y | DOAP session | Skill assessment | | | Microbiology |
| DR7.3 | Describe the pharmacology and action of antifungal (systemic and topical) agents. Enumerate side effects of antifungal therapy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Microbiology, Pharmacology |
| Topic: Viral infections | | Number of competencies (07) | | | Number of procedures that require certification: (NIL) | | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|--|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------|---------------------------|
| DR8.1 | Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of common viral infections of the skin in adults and children | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Pediatrics | Microbiology |
| DR8.2 | Identify and distinguish herpes simplex and herpes labialis from other skin lesions | S | SH | Y | DOAP session | Skill assessment | | | |
| DR8.3 | Identify and distinguish herpes zoster and varicella from other skin lesions | S | SH | Y | DOAP session | Skill assessment | | | |
| DR8.4 | Identify and distinguish viral warts from other skin lesions | S | SH | Y | DOAP session | Skill assessment | | | |
| DR8.5 | Identify and distinguish molluscum contagiosum from other skin lesions | S | SH | Y | DOAP session | Skill assessment | | | |
| DR8.6 | Enumerate the indications, describe the procedure and perform a Tzanck smear | S | SH | Y | DOAP session | Skill assessment | | | |
| DR8.7 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for common viral illnesses of the skin | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pharmacology |

Topic: Leprosy

Number of competencies: (07)

Number of procedures that require certification:(NIL)

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|-------|--|---|----|---|---------------------------------|----------------------------------|--|------------------|-------------------------------------|
| DR9.1 | Classify, describe the epidemiology, etiology, microbiology, pathogenesis, 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 | Bedside clinic | Bedside clinic/ Skill assessment | | General Medicine | |
| DR9.3 | Enumerate the indications and observe the performance of a slit skin smear in patients with leprosy | S | KH | Y | Bedside clinic, DOAP session | 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 Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|---|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------|----------------------------------|
| 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 |
| Topic: Sexually Transmitted Diseases Number of competencies: (11) Number of procedures that require certification:(NIL) | | | | | | | | | |
| DR10.1 | Identify and classify syphilis based on the presentation and clinical manifestations | S | SH | Y | Bedside clinic | Skill assessment | | General Medicine | Microbiology |
| DR10.2 | Identify spirochete in a dark ground microscopy | S | SH | Y | DOAP session | Skill assessment | | | 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 disease | C | SH | Y | DOAP session | 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 |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|-------------------------------------|---|-------------------------------------|------------------------|---------------|--|--------------------------------|---------------------------------------|--------------------------|----------------------------|
| DR10.7 | Identify and differentiate based on the clinical features non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) | S | SH | Y | Bedside clinic | 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 | |
| DR10.11 | Describe the etiology, diagnostic and clinical features and management of vaginal discharge | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Obstetrics & Gynaecology | |
| Topic: HIV | | Number of competencies: (03) | | | Number of procedures that require certification:(NIL) | | | | |
| 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 | Bedside clinic | 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 |
| Topic: Dermatitis and Eczema | | Number of competencies: (07) | | | Number of procedures that require certification:(NIL) | | | | |
| DR12.1 | Describe the aetiopathogenesis of eczema | 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 Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|---|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------|---------------------------|
| DR12.2 | Identify eczema and differentiate it from lichenification and changes of aging | S | SH | Y | Bedside clinic | Skill assessment | | | |
| DR12.3 | Classify and grade eczema | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| DR12.4 | Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the treatment of eczema | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| DR12.5 | Define erythroderma. Enumerate and identify the causes of erythroderma. Discuss the treatment | S | KH | Y | Bedside clinic | Written/ Skill assessment | | | |
| DR12.6 | Identify and distinguish exfoliative dermatitis from other skin lesions | S | SH | Y | Bedside clinic | Skill assessment | | | |
| DR12.7 | Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions | S | SH | Y | Bedside clinic | Skill assessment | | General Medicine | Pathology, Microbiology |
| Topic: Vesicubullous Lesions Number of competencies:(03) Number of procedures that require certificaion:(NIL) | | | | | | | | | |
| DR13.1 | Distinguish bulla from vesicles | S | SH | Y | Bedside clinic | Skill assessment | | | |
| DR13.2 | Demonstrate the Tzanck test, nikolsky sign and bulla spread sign | S | SH | Y | Bedside clinic | Skill assessment | | | |
| DR13.3 | Calculate the body surface area of involvement of vesiculobullous lesions | S | SH | Y | Bedside clinic | Skill assessment | | | |
| Topic: Urticaria Angioedema Number of competencies: (05) Number of procedures that require certificaion:(NIL) | | | | | | | | | |
| DR14.1 | Describe the etiology, pathogenesis and clinical precipitating features and classification of Urticaria and angioedema | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Microbiology, Pathology |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------------------------|------------------------|---------------|--|--------------------------------|---------------------------------------|----------------------|----------------------------|
| DR14.2 | Identify and distinguish urticarial from other skin lesions | S | SH | Y | Bedside clinic | Skill assessment | | | |
| DR14.3 | Demonstrate dermographism | S | SH | Y | Bedside clinic | Skill assessment | | | |
| DR14.4 | Identify and distinguish angioedema from other skin lesions | S | SH | Y | Bedside clinic | Skill assessment | | | |
| DR14.5 | Enumerate the indications and describe the pharmacology indications and adverse reactions of drugs used in the urticaria and angioedema | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pharmacology |
| Topic: Pyoderma | | Number of competencies: (04) | | | Number of procedures that require certification:(NIL) | | | | |
| DR15.1 | Identify and distinguish folliculitis impetigo and carbuncle from other skin lesions | S | SH | Y | Bedside clinic | Skill assessment | | | |
| DR15.2 | Identify staphylococcus on a gram stain | S | SH | Y | Bedside clinic | Skill assessment | | | Microbiology |
| DR15.3 | Enumerate the indications and describe the pharmacology, indications and adverse reactions of topical and systemic drugs used in treatment of pyoderma | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | General Surgery | Microbiology, Pharmacology |
| DR15.4 | Enumerate the indications for surgical referral | S | KH | Y | DOAP session | Written/ Viva voce | | General Surgery | |
| Topic: Collagen Vascular disease | | Number of competencies: (02) | | | Number of procedures that require certification:(NIL) | | | | |
| See also major competencies listed in General Medicine | | | | | | | | | |
| DR16.1 | Identify and distinguish skin lesions of SLE | S | SH | Y | Bedside clinic | Skill assessment | | General Medicine | Pathology |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|---|-------------------------------------|------------------------|---------------|--|--------------------------------|---------------------------------------|--|---------------------------|
| DR16.2 | Identify and distinguish Raynaud's phenomenon | S | SH | Y | Bedside clinic | Skill assessment | | General Medicine | Pathology |
| Topic: Nutritional Deficiencies and Skin | | Number of competencies: (04) | | | Number of procedures that require certification:(NIL) | | | | |
| DR17.1 | Enumerate and identify the cutaneous findings in vitamin A deficiency | K/S | SH | Y | Lecture, Small group discussion, Bedside clinic | Skill assessment/ Viva voce | | General Medicine, Pediatrics, Biochemistry | |
| DR17.2 | Enumerate and describe the various skin changes in Vitamin B complex deficiency | K | KH | Y | Lecture | Written/ Viva voce | | General Medicine, Pediatrics, Biochemistry | |
| DR17.3 | Enumerate and describe the various changes in Vitamin C deficiency | K | KH | Y | Lecture | 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 | |
| Topic: Systemic diseases and the skin | | Number of competencies:(02) | | | Number of procedures that require certification:(NIL) | | | | |
| 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/hyper-thyroidism | K | K | Y | Lecture, Small group | Written/ Viva voce | | General Medicine | |

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

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|----------------------|--|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|------------------------------------|---------------------------|
| Human Anatomy | | | | | | | | | |
| AN4.2 | Describe structure & function of skin with its appendages | K | KH | Y | Lecture, DOAP session | Written/ Viva voce | | Dermatology, Venereology & Leprosy | |
| AN4.4 | Describe modifications of deep fascia with its functions | K | KH | Y | Lecture, DOAP session | Written/ Viva voce | | Dermatology, Venereology & Leprosy | |
| AN4.5 | Explain principles of skin incisions | K | KH | N | Lecture | Written | | Dermatology, Venereology & Leprosy | |
| Pathology | | | | | | | | | |
| PA34.1 | Describe the risk factors, pathogenesis, pathology and natural history of squamous cell carcinoma of the skin | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Dermatology, Venereology & Leprosy | |
| PA34.2 | Describe the risk factors, pathogenesis, pathology and natural history of basal cell carcinoma of the skin | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Dermatology, Venereology & Leprosy | |
| PA34.3 | Describe the distinguishing features between a nevus and melanoma. Describe the etiology, pathogenesis, risk factors, morphology, clinical features and metastases of melanoma | K | KH | N | Lecture, Small group discussion | Written/ Viva voce | | Dermatology, Venereology & Leprosy | |
| PA34.4 | Identify, distinguish and describe common tumors of the skin | S | SH | N | DOAP session | Skill Assessment | | Dermatology, Venereology & Leprosy | |

Microbiology

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|---|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|---|---------------------------|
| MI4.3 | Describe the etio-pathogenesis of Skin and soft tissue infections and discuss the clinical course, and the laboratory diagnosis. | K | KH | Y | Lecture | Written/ Viva voce | | Dermatology, Venereology & Leprosy, General Surgery | |
| MI7.2 | Describe the etio-pathogenesis and discuss the laboratory diagnosis of sexually transmitted infections. Recommend preventive measures, wherever relevant. | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Dermatology, Venereology & Leprosy, Obstetrics & Gynaecology | |

Pharmacology

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|--------|--|---|----|---|---------|--------------------|--|--|--------------|
| PH1.46 | Describe the mechanisms of action, types, doses, side effects, indications and contraindications of antileprotic drugs | K | KH | Y | Lecture | Written/ Viva voce | | Dermatology, Venereology & Leprosy | Microbiology |
| PH1.57 | Describe drugs used in skin disorders | K | KH | Y | Lecture | Written/ Viva voce | | Dermatology, Venereology & Leprosy | |

Pediatrics

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|--------|---------------------------------------|---|----|--|-------------------------------|------------------|--|--|--|
| PE31.4 | Identify Atopic dermatitis and manage | S | SH | | Bedside clinics, Skill Lab | Skill Assessment | | Dermatology, Venereology & Leprosy | |
|--------|---------------------------------------|---|----|--|-------------------------------|------------------|--|--|--|

PHYSICAL MEDICINE & REHABILITATION (CODE: PM)

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/S H/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---|--|-------------------------------------|------------------------|---------------|---|--------------------------------|---------------------------------------|----------------------|-------------------------------|
| PHYSICAL MEDICINE & REHABILITATION | | | | | | | | | |
| Topic: Introduction to Physical Medicine | | Number of competencies: (04) | | | Number of procedures that require certification:(NIL) | | | | |
| PM1.1 | Define and describe the scope of physical Medicine and Rehabilitation and functional restoration | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | |
| 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 |
| PM1.4 | Enumerate the rights and entitlements of differently abled persons | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine, Orthopedics |
| Topic: Cerebrovascular accident | | Number of competencies: (04) | | | Number of procedures that require certification:(NIL) | | | | |
| 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 co-morbidities on the rehabilitation of the patient with cerebrovascular accident | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Medicine |
| Topic: Cerebral Palsy | | Number ocompetencies: (07) | | | Number of procedures that require certification: (NIL) | | | | |
| PM3.1 | Describe and discuss the clinical features, types, evaluation, diagnosis and management of cerebral palsy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | Human Anatomy | Pediatrics |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/S H/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|---|-------------------|------------------------|---------------|--|--------------------------------|---------------------------------------|----------------------|---------------------------|
| PM3.2 | Recognize, Describe and discuss the spectrum of multiple disability: cognitive, motor, visual and hearing in cerebral palsy | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |
| PM3.3 | Recognize describe and discuss the role of special education in children with learning disabilities | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |
| PM3.4 | Demonstrate spasticity rigidity and dystonia in children with cerebral palsy | S | SH | Y | DOAP session, Small group discussion, Bedside clinic | Skill assessment | | | Pediatrics |
| PM3.5 | Enumerate the indications and describe the therapies for spasticity including medications, serial casts, nerve blocks, botulinum toxin injections | K | KH | Y | Lecture, Small group discussion | | | Pharmacology | Pediatrics, Orthopedics |
| PM3.6 | Enumerate the indications and describe prevention of joint subluxations and contractures by proper positioning, and use of special chairs, and appliances | K | KH | Y | DOAP session, Small group discussion, Bedside clinic | | | | Pediatrics |
| PM3.7 | Enumerate the first aid measures to be used in patients with seizures | K | K | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |

Topic: Musculoskeletal system

Number of competencies : (05)

Number of procedures that require certification: (NIL)

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|-------|--|---|----|---|---------------------------------|--------------------|--|--|-------------------------------|
| 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 |
| PM4.2 | Describe and discuss the principles of management of chronic pain and role of common modalities (moist heat, ultrasound, Short wave diathermy) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Pediatrics |
| PM4.3 | Observe in a mannequin or equivalent the administration of an intra-articular injection | S | KH | N | DOAP session | Skill assessment | | | Orthopedics |
| PM4.4 | Describe the role of exercise as a therapeutic modality | 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/S H/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--|---|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------|----------------------------------|
| PM4.5 | Demonstrate correct assessment of muscle strength and range of movements | S | SH | Y | DOAP session, Bedside clinic | Skill assessment | | | General Medicine, Orthopedics |
| Topic: Amputation Number of competencies : (04) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PM5.1 | Enumerate the indications and describe the principles of amputation | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics, General Surgery |
| PM5.2 | Describe the principles of early mobilization, evaluation of the residual limb, contralateral limb and the influence of co-morbidities | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| PM5.3 | Demonstrate the correct use of crutches in ambulation and postures to correct contractures and deformities | S | SH | Y | DOAP session, Bedside clinic | Skill assessment | | | Orthopedics |
| PM5.4 | Identify the correct prosthesis for common amputations | S | SH | Y | DOAP session | Skill assessment written | | | Orthopedics |
| Topic: Lower motor neuron lesion Number of competencies :(04) Number of procedures that require certification: (NIL) | | | | | | | | | |
| 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 |
| PM6.3 | Describe the principles principles of skin traction, serial casts and surgical treatment including contracture release, tendon transfer, osteotomies and arthrodesis. | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| PM6.4 | Describe the principles of orthosis for ambulation in PPRP | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| Topic: Spinal injury Number of competencies:(09) Number of procedures that require certification: (NIL) | | | | | | | | | |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/S H/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|--------|---|-------------------|------------------------|---------------|--|--------------------------------|---------------------------------------|----------------------|-------------------------------|
| PM7.1 | Describe and discuss the clinical features, diagnostic work up and management of spinal cord injury | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | Orthopedics |
| PM7.2 | Describe and demonstrate process of transfer, application of collar restraints while maintaining airway and prevention of secondary injury in a mannequin/model | S | SH | Y | DOAP session, Small group discussion, Bedside clinic | Skill assessment | | | Orthopedics |
| PM7.3 | Perform and demonstrate a correct neurological examination in a patient with spinal injury and determine the neurologic level of injury | S | SH | Y | Bed side clinic | Skill assessment | | | Orthopedics |
| 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 |
| PM7.5 | Enumerate the indications and identify the common mobility aids and appliances, wheel chairs | S | S | Y | DOAP session | Skill assessment /Viva voce | | | 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 |
| PM7.8 | Enumerate the causes of, describe and classify Pressure Sores, their prevention, and treatment. | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Surgery |
| PM7.9 | Enumerate the indications of debridement, and Split thickness skin grafting. | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce | | | General Surgery |

Topic: Traumatic brain injury (TBI)

Number of competencies:(05)

Number of procedures that require certification: (NIL)

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/S H/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | 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 |
| Topic: Geriatrics | | Number of competencies:(01) | | | Number of procedures that require certification: (NIL) | | | | |
| 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 discussion | Written/ Viva voce | | | General Medicine, Psychiatry |
| <p>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</p> | | | | | | | | | |

Integration

| General Medicine | | | | | | | | | |
|------------------|---|---|----|---|---------------------------------|--------------------|--|--|---|
| 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 |
| 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 |

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/S H/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P | Vertical Integration | Horizontal Integration |
|---------|---|-------------------|------------------------|---------------|---------------------------------------|--------------------------------|---------------------------------------|----------------------|---|
| 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 |

Pediatrics

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|-------|--|---|----|---|---|--------------------|--|--|------------------------------------|
| PE3.8 | Discuss the etio-pathogenesis, clinical presentation and multi-disciplinary approach in the management of Cerebral palsy | K | KH | Y | Lecture, Small group discussion, Bed side clinics | Written/ Viva voce | | | Physical Medicine & Rehabilitation |
| | | | | | | | | | |

List of contributing subject Experts

1. Human Anatomy

- Dr. Praveen R Singh, Professor & Head, Department of Anatomy, Pramukhswami Medical College, Karamsad, Gujarat
- Dr. Nachiket Shankar, Associate Professor, Department of Anatomy, St. John's Medical College & Hospital, Bangalore

2. Physiology

- Dr. Mario Vaz, Professor, Department of Physiology, St. John's Medical College & Hospital, Bangalore
- Dr. Jayashree Sengupta, Former Professor & Head, Department of Physiology, All India Institute of Medical Sciences, New Delhi.
- Dr. Hasmukh D Shah, Professor & Head, Department of Physiology, Pramukhswami Medical College, Karamsad, Gujarat

3. Biochemistry

- Dr. Nibhriti Das, Professor, Department of Biochemistry, All India Institute of Medical Sciences, New Delhi
- Dr. S. P. Singh, Professor, Department of Biochemistry, Maharani Laxmi Bai Medical College, Jhansi, Uttar Pradesh
- Dr. Hitesh N Shah, Professor & Head, Department of Biochemistry, Pramukhswami Medical College, Karamsad, Gujarat

4. Pharmacology

- Dr. S. K. Maulik, Professor, Department of Pharmacology, All India Institute of Medical Sciences, New Delhi
- Dr. Vandana Roy, Professor, Department of Pharmacology, Maulana Azad Medical College, New Delhi

5. Pathology

- Dr. S. Datta Gupta, Professor, Department of Pathology, All India Institute of Medical Sciences, New Delhi
- Dr. Uma Chaturvedi, Professor, C-1303, Freedom Park Life, Sector- 57, Gurugram

6. Microbiology

- Dr. S. Geetalakshmi, Dean, Professor, Department of Microbiology, Stanley Medical College, Chennai, Tamil Nadu.
- Dr. Padma Srikanth, Professor, Department of Microbiology, Sri Ramachandra Medical College & Research Institute, Chennai
- Dr. Suman Singh, Professor, Department of Microbiology, Pramukhswami Medical College, Karamsad, Gujarat

7. Forensic Medicine & Toxicology

- Dr. Sanjeev Lalwani, Professor & Registrar (Academics), Department of Forensic Medicine, All India Institute of Medical Sciences, New Delhi
- Dr. T. D. Dogra, Former Director & Former Head, Department of Forensic Medicine, All India Institute of Medical Sciences, New Delhi; currently, Vice Chancellor, SGT University, Gurugram
- Col. Ravi Rautji, Professor & Head, Department of Forensic Medicine, Commanding Officer, Directorate General of Medical Services (Army), New Delhi
- Dr. S.D. Nanandkar, Professor & Head, Department of Forensic Medicine, Grant Government Medical College & Sir J.J. Group of Hospitals, Mumbai
- Dr. Indrajit L. Khandekar, In-charge CFMU and Associate Professor, Department of Forensic Medicine & Toxicology, MGIMS and Kasturba Hospital, Sewagram, Wardha.
- Dr. S. B. Punpale, Professor & Head, Department of Forensic Medicine, B. J. Medical College, Pune, Maharashtra

8. Community Medicine

- Dr. B. S. Garg, Professor & Head, Department of Community Medicine, Mahatama Gandhi Institute of Medical Sciences, Wardha, Sewagram, Maharashtra
- Dr. Umesh Kapil, Professor, Department of Community Medicine, All India Institute of Medical Sciences, New Delhi
- Dr. Sanjay Zodpey, Director, Public Health Foundation of India, Isid Campus, 4 Institutional Area, Vasant Kunj, New Delhi
- Dr. Saudan Singh, Professor, Department of Community Medicine, Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi
- Dr. Dinesh Kumar, Professor, Department of Community Medicine, Pramukhswami Medical College, Karamsad, Gujarat
- Dr. Pankaj B. Shah, Professor, Department of Community Medicine, Sri Ramachandra Medical College & Research Institute, Chennai.

9. General Medicine & Respiratory Medicine

- Dr. Krishna G. Seshadri, Visiting Professor, Endocrinology & Metabolism, Balaji Vidyapeeth, Puducherry
- Dr. M. K. Bhatnagar, Director Professor, Department of General Medicine, Lady Hardinge Medical College, New Delhi
- Dr. Aparna Agarwal, Director Professor of Medicine, Lady Hardinge Medical College, New Delhi
- Dr. Anil Gurtoo, Director Professor of Medicine, Lady Hardinge Medical College, New Delhi

10. Pediatrics

- Dr. Harish Chellani, Professor of Pediatrics, Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi
- Dr. A. K. Dutta, Former Head, Kalawati Saran Children's Hospital, New Delhi

- Dr. S. Aneja, Director Professor & Head, Department of Pediatrics, Kalawati Saran Children's Hospital, New Delhi
- Dr. Latha Ravichandran, Professor, Department of Paediatrics, Sri Ramachandra Medical College & Research Institute, Chennai.

11. Psychiatry

- Dr. Rakesh Kumar Chadda, Department of Psychiatry, All India Institute of Medical Sciences, New Delhi
- Dr. N. M. Patil, Professor, Department of Psychiatry, Jawaharlal Nehru Medical College, Belagavi
- Dr. Rajesh Rastogi, Consultant & Head Department of Psychiatry, Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi.
- Dr. Jagdish R Varma, Associate Professor, Department of Psychiatry, Pramukhswami Medical College, Karamsad, Gujarat

12. Dermatology, Venereology & Leprosy

- Dr. R. K. Gautam, Professor, Department of Dermatology, Venereology & Leprosy, Dr. Ram Manohar Lohia Hospital, New Delhi.
- Dr. Sujay Khandpur, Professor, Department of Dermatology, Venereology & Leprosy, All India Institute of Medical Sciences, New Delhi
- Dr. S. Murugan, Associate Professor of Dermatology, Sri Ramachandra Medical College & Research Institute, Chennai

13. Physical Medicine and Rehabilitation

- Dr. Sanjay Wadhwa, Professor, Department of Physical Medicine & Rehabilitation, All India Institute of Medical Sciences, New Delhi
- Dr. George Tharion, Head, Department of Physical Medicine & Rehabilitation, Christian Medical College, Vellore, Tamil Nadu

- Dr. Jagdish Menon, Professor & Head, Department of Orthopaedics and Dept. of Physical & Rehabilitative Medicine, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry

14. General Surgery

- Dr. N Ananthkrishnan, 2A Vairam Enclave, Siddhananda Nagar, Pondicherry -605005.
- Dr. P. V. Chalam, Former Professor, Department of Surgery, Gandhi Medical College, Secunderabad, Telengana.
- Dr. Dinesh Bhatnagar, Professor, Department of General Surgery, North Delhi Municipal Corporation Medical College, Hindu Rao Hospital, Malka Ganj, Delhi

15. Ophthalmology

- Dr. Smita Singh, Professor, Department of Ophthalmology, Mahatma Gandhi Institute of Medical Sciences, Wardha

16. Oto-rhino-laryngology

- Dr. Achal Gulati, Director Professor, Department of ENT, Maulana Azad Medical College, New Delhi
- Dr. Ravi Kumar, Professor & Head, Department of ENT, Sri Ramachandra Medical College & Research Institute, Chennai
- Dr. Suma Mathew, Professor, Department of ENT, Christian Medical College, Vellore, Tamil Nadu

17. Obstetrics and Gynaecology

- Dr. Neerja Bhatla, Professor, Department of Obstetrics & Gynecology, All India Institute of Medical Sciences, New Delhi
- Dr. Annie Regi, Professor & Head, Department of Obstetrics & Gynecology, Christian Medical College, Vellore, Tamil Nadu
- Dr. Usha Vishwanath, Professor, Department of Obstetrics & Gynecology, Sri Ramachandra Medical College & Research Institute, Chennai

18. Orthopaedics

- Dr. P.V. Vijayaraghavan, Vice Chancellor & Professor of Orthopedics, Sri Ramachandra Medical College & Research Institute, Chennai
- Dr. Raj Bahadur, Professor & Head, Department of Orthopaedics, Postgraduate Institute of Medical Sciences, Chandigarh
- Dr. SC. Goel, Professor, Department of Orthopaedics, Institute of Medical Sciences, BHU, Varanasi, Uttar Pradesh

19. Anaesthesiology

- Dr. Baljit Singh, Director Professor of Anaesthesia, G. B. Pant Hospital, Delhi
- Dr. Ramesh Keshav, Department of Anaesthesia, Dr. Ram Manohar Lohia Hospital, New Delhi
- Dr. Mridula Pawar, Consultant & Head, Department of Anaesthesia, Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi

20. Radio- Diagnosis

- Dr. Kishor Taori (late), Professor & Head, Department of Radiodiagnosis, Government Medical College, Nagpur

21. Radiotherapy

- Dr. P. K. Jhulka, Dean & Professor of Radiotherapy, All India Institute of Medical Sciences, New Delhi.
- Dr. Shyam Shrivastava, Head, Department of Radiation, Tata Memorial Hospital, Mumbai

22. Dentistry

- Dr. Sridevi Padmanabhan, Professor, Department of Orthodontics, Faculty of Dental Sciences, Sri Ramchandra Medical College & Research Institute, Chennai