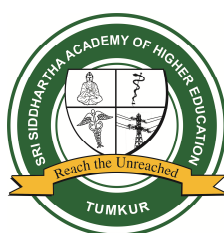


**Revised Ordinance Governing
MBBS Degree Course and Curriculum of
Phase-III Part-II Subjects – RS3**



**SRI SIDDHARTHA
ACADEMY OF HIGHER EDUCATION**

(Deemed to be University, declared u/s 3 of the UGC Act, 1956)

Agalakote, B.H. Road, Tumkur – 572107, Karnataka, India

GMER - SECTION I7/15/2022

PREAMBLE

Introduction to CBME based curriculum

The Medical Council of India has revised the undergraduate medical education curriculum so that the Indian Medical Graduate is able to recognize "health for all" as a national goal and should be able to fulfill his/her societal obligations. The revised curriculum has attempted to enunciate the competencies the student must be imparted and should have learnt, with clearly defined teaching-learning strategies and effective methods of assessment. Communicating effectively and sympathetically with patients and their relatives has been visualized as a core area of the revised curriculum. These and other goals identified in the curriculum are to be implemented in all medical colleges under the ambit of Medical Council of India from August 2019 and to smoothen this process Guidelines have been prepared for its effective implementation. In response to the need for a seamless introduction of the curriculum into the Undergraduate system, all medical colleges need to upgrade the teaching-learning skills of their faculty. Earlier experience with implementation of curricular changes suggests that a carefully managed, sustainable approach is necessary to ensure that every college has access to the new skills and knowledge enunciated in the new curriculum. Faculty training and development thus assumes a key role in the effective implementation and sustenance of the envisaged curricular reforms.

INTRODUCTION

The undergraduate medical curriculum of the medical council of India is created to ensure that the medical doctor who emerges from the MBBS training program is capable of assisting the nation to achieve its goal of health for all. In addition, it aspires to ensure that the “graduate” meets or exceeds global bench-mark in knowledge, attitude, skills and communication. This intent is at the core of the Graduate Medical Regulations, 2019.

The Graduate Medical Regulations, 2019 represents the first major revision to the medical curriculum since 1997 and hence incorporates changes in science and thought over two decades. A significant advance is the development of global competencies and subject-wise outcomes that define the roles of the “Indian Medical Graduate”. Learning and assessment strategies have been outlined that will allow the learner to achieve these competencies/outcomes. Effective appropriate and empathetic communication, skill acquisition, student-doctor method of learning, aligned and integrated learning and assessment are features that have been given additional emphasis in the revised curriculum.

The revised curriculum is to be implemented by all medical colleges under the ambit of Medical Council of India from August 2019. The roll out will be progressive over the duration of the MBBS course.

This document represents a compilation of the resource material that was used in the Curricular Implementation Support Program (CISP) and has attempted to provide a stepwise and comprehensive approach to implement the curriculum. It details the philosophy and the steps required in a simple and richly illustrated manner. Teaching slide decks, faculty guides and online resource material supplement this document. The document is to be used in conjunction with the Competency document, AETCOM module and the GMR document.

Indian Medical Graduate Training Programme

The undergraduate medical education programme 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 programme are hereby prescribed: -

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 to fulfill his/her social obligations towards realization of this goal.
- (b) Learn every aspect of National policies on health and devote her/him 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.

Institutional Goals

(1) 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, palliative and rehabilitative medicine in respect to the commonly encountered health problems.
- (c) appreciate rationale for different therapeutic modalities; be familiar with the administration of “essential medicines” and their common adverse 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 Programmes 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 levels of service delivery
 - (vii) Bio-medical waste disposal
 - (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, hospital management, 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 such as 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.

Goals and Roles for the Learner

In order to fulfil the goal of the IMG training programme, the medical graduate must be able to function in the following roles appropriately and effectively

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

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:

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

- Demonstrate knowledge of normal human structure, function and development from a molecular, cellular, biologic, clinical, behavioural and social perspective.
- Demonstrate knowledge of abnormal human structure, function and development from a molecular, cellular, biological, clinical, behavioural and social perspective.
- Demonstrate knowledge of medico-legal, societal, ethical and humanitarian principles that influence health care.
- 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.
- 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.
- 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.
- Demonstrate ability to perform a physical examination that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to perform a physical examination that is contextual to gender, social and economic status, patient preferences and values.

- 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.
- Maintain accurate, clear and appropriate record of the patient in conformation with legal and administrative frame works.
- Demonstrate ability to choose the appropriate diagnostic tests and interpret these tests based on scientific validity, cost effectiveness and clinical context.
- 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.
- Demonstrate ability to provide a continuum of care at the primary and/or secondary level that addresses chronicity, mental and physical disability.
- Demonstrate ability to appropriately identify and refer patients who may require specialized or advanced tertiary care.
- Demonstrate familiarity with basic, clinical and translational research as it applies to the care of the patient.

Leader and member of the health care team and system

- Work effectively and appropriately with colleagues in an inter-professional health care team respecting diversity of roles, responsibilities and competencies of other professionals.
- Recognize and function effectively, responsibly and appropriately as a health care team leader in primary and secondary health care settings.
- 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.
- 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.
- Participate appropriately and effectively in measures that will advance quality of health care and patient safety within the health care system.
- Recognize and advocate health promotion, disease prevention and health care quality improvement through prevention and early recognition: in a) life style diseases and b) cancers, in collaboration with other members of the health care team.

Communicator with patients, families, colleagues and community

- 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.

- Demonstrate ability to establish professional relationships with patients and families that are positive, understanding, humane, ethical, empathetic, and trustworthy.
- Demonstrate ability to communicate with patients in a manner respectful of patient's preferences, values, prior experience, beliefs, confidentiality and privacy.
- Demonstrate ability to communicate with patients, colleagues and families in a manner that encourages participation and shared decision-making.

Lifelong learner committed to continuous improvement of skills and knowledge

- Demonstrate ability to perform an objective self-assessment of knowledge and skills, continue learning, refine existing skills and acquire new skills.
- Demonstrate ability to apply newly gained knowledge or skills to the care of the patient.
- Demonstrate ability to introspect and utilize experiences, to enhance personal and professional growth and learning.
- Demonstrate ability to search (including through electronic means), and critically evaluate the medical literature and apply the information in the care of the patient.
- Be able to identify and select an appropriate career pathway that is professionally rewarding and personally fulfilling.

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

- Practice selflessness, integrity, responsibility, accountability and respect.
- Respect and maintain professional boundaries between patients, colleagues and society.
- Demonstrate ability to recognize and manage ethical and professional conflicts.
- Abide by prescribed ethical and legal codes of conduct and practice.
- Demonstrate a commitment to the growth of the medical profession as a whole.

Broad Outline on training format

In order to ensure that training is in alignment with the goals and competencies listed in sub-clause 2 and 3 above:

- There shall be a "Foundation Course" to orient medical learners to MBBS programme, and provide them with requisite knowledge, communication (including electronic), technical and language skills.
- The curricular contents shall be vertically and horizontally aligned and integrated to the maximum extent possible in order to enhance learner's interest and eliminate redundancy and overlap.
- Teaching-learning methods shall be learner centric and shall predominantly include small group learning, interactive teaching methods and case-based learning.
- Clinical training shall emphasize early clinical exposure, skill acquisition, certification in essential skills; community/primary/secondary care-based learning experiences and emergencies.
- Training shall primarily focus on preventive and community-based approaches to health and disease, with specific emphasis on national health priorities such as family welfare, communicable and noncommunicable diseases including cancer, epidemics and disaster management.
- Acquisition and certification of skills shall be through experiences in patient care, diagnostic and skill laboratories.
- The development of ethical values and overall professional growth as integral part of curriculum shall be emphasized through a structured longitudinal and dedicated programme on professional development including attitude, ethics and communication.
- Progress of the medical learner shall be documented through structured periodic assessment that includes formative and summative assessments. Logs of skill-based training shall be also maintained.

Appropriate Faculty Development Programmes shall be conducted regularly by institutions to facilitate medical teachers at all levels to continuously update their professional and teaching skills, and align their teaching skills to curricular objectives.

SECTION II

Admission to the Indian Medical Graduate Programme

NATIONAL ELIGIBILITY-CUM-ENTRANCE TEST AND COMMON COUNSELLING

SECTION III

Migration

AS PER MCI GUIDELINES

SECTION IV

REGULATIONS GOVERNING MBBS DEGREE COURSE

[Eligibility for Admission, Duration, Attendance and Scheme of Examination]

1. ELIGIBILITY

As per guidelines of National Medical Council of India

2. DURATION OF THE COURSE

Every learner shall undergo a period of certified study extending over 4 ½ academic years, divided into nine semesters from the date of commencement of course to the date of completion of examination which shall be followed by one year of compulsory rotating internship.

Each academic year will have at least 240 teaching days with a minimum of eight hours of working on each day including one hour as lunch break

The period of 4 ½ years is divided as follows:

- **Pre-Clinical Phase [(Phase I) - First Professional phase of 13 months]** preceded by Foundation Course of one month]: will consist of preclinical subjects – Human Anatomy, Physiology, Biochemistry, Introduction to Community Medicine, Humanities, Professional development including Attitude, Ethics & Communication (AETCOM) module and early clinical exposure, ensuring both horizontal and vertical integration.
- **Para-clinical phase [(Phase II) - Second Professional of 12 months]**: will consist of Para-clinical subjects namely Pathology, Pharmacology, Microbiology, Community Medicine, Forensic Medicine and Toxicology, Professional development including Attitude, Ethics & Communication (AETCOM) module and introduction to clinical subjects ensuring both horizontal and vertical integration.

- **Clinical Phase – [(Phase III) Third Professional (28 months)]**

- (a) **Part I (13 months)** - The clinical subjects include General Medicine, General Surgery, Obstetrics & Gynaecology, Pediatrics, Orthopaedics, Dermatology, Otorhinolaryngology, Ophthalmology, Community Medicine, Forensic Medicine and Toxicology, Psychiatry, Respiratory Medicine, Radiodiagnosis & Radiotherapy and Anaesthesiology & Professional development including AETCOM module.
- (b) **Electives (2 months)** - To provide learners with opportunity for diverse learning experiences, to do research/community projects that will stimulate enquiry, self-directed experimental learning and lateral thinking [9.3].
- (c) **Part II (13 months)** - Clinical subjects include:
 - i. Medicine and allied specialties (General Medicine, Psychiatry, Dermatology Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis)
 - ii. Surgery and allied specialties (General Surgery, Orthopedics [including trauma]), Dentistry, Physical Medicine and rehabilitation, Anaesthesiology and Radiodiagnosis)
 - iii. Obstetrics and Gynecology (including Family Welfare)
 - iv. Pediatrics
 - v. AETCOM module

The clinical exposure to learners will be in the form of learner-doctor method of clinical training in all phases. The emphasis will be on primary, preventive and comprehensive health care. A part of training during clinical postings should take place at the *primary level* of health care. It is desirable to provide learning experiences in secondary health care, wherever possible. This will involve:

- (a) Experience in recognizing and managing common problems seen in outpatient, inpatient and emergency settings,
- (b) Involvement in patient care as a team member,
- (c) Involvement in patient management and performance of basic procedures.

- **A learner shall not be entitled to graduate after 10 years of his/her joining of the first part of the MBBS course**

Calendar for the MBBS Course for the new CBME curriculum

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------------|-----|-----|------------|-----|-----|-----|--------------------------|---------------------|--------------------------------|-------------------------|-----|
| | | | | | | | Founda tion course | I MBBS | | | |
| I MBBS | | | | | | | | Phase I exam | II MBBS | | |
| II MBBS | | | | | | | | Phase II exam | III MBBS PART 1 | | |
| III MBBS PART 1 | | | | | | | | | Phase III part 1 exam | Electives and skills | |
| III MBBS PART 2 | | | | | | | | | | | |
| Phase III part 2 exam | | | Internship | | | | | | | | |
| Internship | | | | | | | | | | | |

DISTRIBUTION OF SUBJECTS BY PROFESSIONAL PHASE

| Phase and Year of MBBS Training | Subjects and new teaching elements | Duration | University examination |
|---------------------------------|--|-------------|------------------------------|
| First professional MBBS | <ul style="list-style-type: none"> Foundation course (1month) Human Anatomy, Physiology&Biochemistry Introduction of Community Medicine, Humanities Early Clinical Exposure Attitude. Ethics and Communication Module(AETCOM) | 1+13 months | 1 st Professional |

| | | | |
|---|---|-----------|--|
| Second professional MBBS | <ul style="list-style-type: none"> Pathology, Microbiology, Pharmacology, Forensic Medicine And Toxicology Introduction to clinical subjects including community Medicine Clinical postings AETCOM | 12 months | II nd Professional |
| Third professional MBBS- part I | <ul style="list-style-type: none"> General Medicine, General Surgery, OBG, Paediatrics, Orthopaedics, Dermatology, Psychiatry, Otorhinolaryngology, Ophthalmology, Community Medicine, Forensic Medicine and Toxicology, Respiratory Medicine, Radiodiagnosis & Radiotherapy, Anaesthesiology Clinical Subjects /postings AETCOM | 12 months | III rd Professional Part I |
| Electives | <ul style="list-style-type: none"> Electives, skills and assessment | 2 months | |
| Third professional MBBS- part II | <ul style="list-style-type: none"> General Medicine, Paediatrics, General Surgery, Orthopaedics, Obstetrics and Gynaecology, including Family welfare and allied specialties Clinical Postings /subjects AETCOM | 13 months | III rd Professional Part II |

3. ATTENDANCE

- Every candidate should have **attendance not less than 75% of the total classes conducted in theory and not less than 80% of the classes conducted in practical** in each calendar year calculated from the date of commencement of the term to the last working day as notified by the University in each of the subjects prescribed to be eligible to appear for the university examination.
- Seventy five percent (75%) **attendance in Professional Development Programme (AETCOM Module) is required for eligibility to appear for final examination in each professional year** (vide Medical Council of India Notification on Graduate Medical Education (Amendment) Regulations 2019, published in the Gazette of India Part III, Section 4, Extraordinary issued on 4th November 2019)
- In subjects that are taught in more than one phase – the learner must have 75% attendance in theory and 80% in practical in each phase of instruction in that subject.
- If an examination comprises more than one subject (for e.g., General Surgery and allied branches), the candidate must have 75% attendance in each subject and 80% attendance in each clinical posting. Learners who do not have at least 75% attendance in the electives will not be eligible for the Third Professional - Part II examination.

The Principal should notify at the College the attendance details at the end of each term without fail underintimation to this University.

A candidate lacking in the prescribed attendance and progress in any subject(s) in theory or practical should not be permitted to appear for the examination in that subject(s).

4. **TEACHING HOURS: Third Professional Part 2**

| Subjects | Teaching hours - lectures | Tutorials/seminars Integrated teaching | Self-directed learning | Total |
|------------------------------------|---------------------------|--|------------------------|-------|
| General Medicine | 70 | 125 | 15 | 210 |
| General surgery | 70 | 125 | 15 | 210 |
| Obstetrics & Gynecology | 70 | 125 | 15 | 210 |
| Pediatrics | 20 | 35 | 10 | 65 |
| Orthopedics | 20 | 25 | 5 | 50 |
| AETCOM | 28 | | 15 | 43 |
| Electives | | | | 200 |
| Total | 250 | 435 | 60 | 1780 |

- Teaching and learning shall be aligned and integrated across specialties both vertically and horizontally for better learner comprehension. Learner centered learning methods should include problem oriented learning, case studies, community-oriented learning, self- directed and experiential
- Didactic lectures shall not exceed one third of the schedule; two third of the schedule shall include interactive sessions, practicals, clinical or/and group discussions. The learning process should include clinical experiences, problem-oriented approach, case studies and community health care activities.

Table : Clinical postings for all clinical Subjects

| Subjects | Period of training in weeks | | | Total (weeks) |
|-------------------------------|-----------------------------|-----------------|---|---------------|
| | II MBBS | III MBBS Part 1 | III MBBS Part 2 | |
| Electives | | | 8(4weeks clinical postings to continue) | |
| General Medicine | 4 | 4 | 8+4 | 20 |
| General Surgery | 4 | 4 | 8+4 | 20 |
| Obstetrics and Gynecology | 4 | 4 | 8+4 | 20 |
| Pediatrics | 2 | 4 | 4 | 10 |
| Orthopaedics including Trauma | 2 | 4 | 2 | 8 |
| Community Medicine | 4 | 6 | - | 10 |
| Otorhinolaryngology | 4 | 4 | - | 8 |
| Ophthalmology | 4 | 4 | - | 8 |
| Dermatology | 2 | 2 | 2 | 6 |
| Psychiatry | 2 | 2 | - | 4 |
| Respiratory Medicine | 2 | - | - | 2 |
| Radiodiagnosis | 2 | - | - | 2 |
| Dentistry & Anesthesiology | - | 2 | - | 2 |
| Casualty | - | 2 | - | 2 |
| Total | 36 | 42 | 44 | 126 |

AETCOM modules in 3rd MBBS Part 2

| AETCOM Module number | Title | Department |
|----------------------|--|----------------------------|
| 4.1 | The foundations of communication - 5 | General Surgery |
| 4.2 | Case studies in medico-legal and ethical situations | Obstetrics and Gynaecology |
| 4.3 | Case studies in medico-legal and ethical situations | Internal Medicine |
| 4.4 | Case studies in ethics empathy and the doctor-patient relationship | General Surgery |
| 4.5 | Case studies in ethics: the doctor-industry relationship | Paediatrics |
| 4.6 | Case studies in ethics and the doctor - industry relationship | Orthopaedics |
| 4.7 | Case studies in ethics and patient autonomy | Paediatrics |
| 4.8 | Dealing with death | Internal Medicine |
| 4.9 | Medical Negligence | Obstetrics and Gynaecology |

SCHEME OF EXAMINATION

INTERNAL ASSESSMENT:

- Regular periodic examinations shall be conducted throughout the course. There shall be no less than three examinations in each clinical subject in the final professional year (3rd MBBS Part2) and one in each of the other years that the clinical subjects are taught in.
- The **third internal examination** should be conducted on the lines of the university examination(Preliminary examination).
- An end of posting clinical assessment shall be conducted for each clinical posting in each professional year.
- When subjects are taught in more than one phase, the internal assessment must be done in each phase and must contribute proportionately to final assessment. For example, General Medicine must be assessed in second Professional, third Professional Part I and third Professional Part II, independently.
- Day to day records and log book (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills.
- The final internal assessment in a broad clinical specialty (e.g., Surgery and allied specialties etc.) shall comprise of marks from all the constituent specialties. The proportion of the marks for each constituent specialty shall be determined by the time of instruction allotted to each.
- An **average of the marks scored in all internal assessment examinations and the** average of all marks scored in the end of posting clinical assessment will be considered as the final internal assessment scores and eligibility for University examinations.
- Learners must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in a particular subject in order to be eligible for appearing at the final University

examination of that subject.

- **Internal assessment marks will reflect under separate head in the marks card of the university examination. The internal assessment marks (theory and practical) will not be added to the marks secured (theory/practical) in the university examination for consideration of pass criteria, pass percentage, award of first class/distinction/gold medal.**
- The results of internal assessment should be displayed on the notice board within a 1-2 weeks of the test.
- Colleges should formulate policies for remedial measures for students who are either not able to score qualifying marks or have missed on some assessments due to any reason.
- Learners must have completed the required certifiable competencies for that phase of training and completed the log book appropriate for that phase of training to be eligible for appearing at the final university examination of that subject.

5. UNIVERSITY EXAMINATION

Examination schedule

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----------------------------|-----|------------|-----|-----|-----|-----|----------------------|-----------------|--------------------------------|-------------------------|-----|
| | | | | | | | Foundatio ncourse | I MBBS | | | |
| I MBBS | | | | | | | | PhaseI exam | II MBBS | | |
| II MBBS | | | | | | | | PhaseII exam | III MBBS PART 1 | | |
| III MBBS PART 1 | | | | | | | | | Phase III part 1 exam | Electives and skills | |
| III MBBS PART 2 | | | | | | | | | | | |
| Phase III part 2 exam | | Internship | | | | | | | | | |
| Internship | | | | | | | | | | | |

General guidelines

- University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimal level of skills, ethical and professional values with clear concepts of the fundamentals which are necessary for him/her to function effectively and appropriately as a physician of first contact. Assessment shall be carried out on an objective basisto the extent possible.
- Nature of questions will include different types such as structured essays (Long Answer Questions - LAQ), Short Essays, Short Answers Questions (SAQ) and Multiple-choice questions (MCQs). Marks for each part should be indicated separately.
- The learner **must secure at least 40% marks in each of the two papers with minimum**

50% of marks in aggregate (both papers together) to pass, in subjects with more than one paper.

- In subjects with one question paper the learner must secure a minimum of 50% marks to pass.
- Clinical examinations will be conducted at the bedside in the hospital wards. The objective will be to assess proficiency and skills to elicit a detailed history, perform clinical examination, interpret data and form logical conclusion, wherever applicable.
- **There shall be one main examination in an academic year and a supplementary to be held not later than 90 days after the declaration of the results of the main examination.**
- **A learner shall not be entitled to graduate after 10 years of his/her joining of the first part of the MBBS course.**
- **A maximum number of four permissible attempts would be available to clear the first Professional University examination, whereby the first Professional course will have to be cleared within 4 years of admission to the said course. Partial attendance at any University examination shall be counted as an availed attempt.**
- **THIRD PROFESSIONAL PART 2 EXAMINATION:**
This examination shall be held at the end of the fourth-year of training(13 months), in the subjects of Internal medicine, General Surgery including Orthopaedics, Obstetrics and Gynaecology, and Paediatrics.

Table: Examination components, Subjects and Distribution of Marks

| THEORY | Internal Medicine | Surgery & Orthopedics | Obstetrics & Gynecology | Pediatrics |
|---|--------------------------|----------------------------------|------------------------------------|-------------------|
| Written Paper | | | | |
| No. of Papers & Maximum Marks for each paper. | 2×100=200 | 2×100=200 | 2×100=200 | 1×100=100 |
| Total theory | 200 | 200 | 200 | 100 |
| PRACTICAL | | | | |
| 1. Practical exam | 160 | 160 | 160 | 80 |
| 2. Viva-voce | 40 | 40 | 40 | 20 |
| Total practical | 200 | 200 | 200 | 100 |
| Internal assessment* | | | | |
| Internal Assessment (Theory) | 100 | 100 | 100 | 100 |
| Internal assessment (Practical) | 100 | 100 | 100 | 100 |

*** Internal assessment marks will reflect under separate head in the marks card of the university examination.**

Type, number of questions and distribution of marks for written paper

| TYPES OF QUESTION | NUMBER OF QUESTIONS | MARKS FOR EACH QUESTION |
|-------------------|---------------------|-------------------------|
| Long essay | 2 | 10 |
| Short essay | 6 | 5 |
| Short answers | 10 | 3 |
| MCQs | 20 | 1 |
| Total | | 100 |

A blueprint for theory paper indicating the topics and marks allotted for each are given for each of the subjects below. The blueprint provided is an estimate only, the spirit of the blueprint must be honoured while setting the paper. This document will guide teachers/ students and evaluators on what to focus on. The focus should be on providing clinical oriented questions rather than purely theoretical questions.

The distribution of topics in paper 1 and paper 2, are also given in clinical subjects with more than one theory paper. The given division of topics is only a guideline, as the topics are often a continuum, making clear demarcation difficult.

6. SUBMISSION OF LOGBOOK

- a. At the time of Clinical Examination each candidate shall submit to the Examiners his/her logbook record duly certified by the Head of the Department as a bona fide record of the workdone by the candidate.

7. ELIGIBILITY TO APPEAR FOR EXAMINATION

The following criteria to be met by the students to be eligible for the university exams:

- a. Shall have undergone satisfactorily the approved course of study in the subject/subjects for the prescribed duration.
- b. Shall have attended not less than 75% of the total classes conducted in theory and not less than 80% of the total classes conducted in practical separately to become eligible to appear for examination in that subject/subjects.
- c. Minimum of 40% marks to be obtained **separately** in theory and practical AND at least 50% marks of the total marks **combined** in theory and practical assigned for internal assessment is to be obtained in a particular subject to appear for university exam. (average of 3 internal assessments theory and practical separately)
- d. Learners must have completed the required certifiable competencies for that phase of training and completed the logbook appropriate for that phase of training to be eligible for appearing at the final university examination of that subject.

8. CRITERIA FOR PASS

For declaration of pass in any subject in the University examination, a candidate shall pass both in Theory and Practical examination components separately as stipulated below:

- The Theory component consists of marks obtained in University Written papers only. For a pass in theory, a candidate must secure at least 40% marks in each of the two papers with minimum 50% of marks in aggregate (both papers together).
- For a pass in practical examination, a candidate shall secure not less than 50% marks in aggregate, i.e., marks obtained in university practical examination and viva voce added together.
- **Internal assessment marks will reflect as a separate head of passing at the university examination.**
- **The IA marks will not be added to the marks obtained in the University examination and will NOT be used to calculate pass percentage, award of class, distinction and GOLD medal.**
- A candidate not securing 50% marks in aggregate in Theory or Practical examination + viva in a subject shall be declared to have failed in that subject and is required to appear for both Theory and Practical again in the subsequent examination in that subject.

9. DECLARATION OF CLASS

- a. A candidate having appeared in all the subjects in the same examination and passed that examination in the first attempt and secures 75% of marks or more of **grand total marks (university examination + internal assessment)** prescribed will be declared to have passed the examination with distinction.
- b. A candidate having appeared in all the subjects in the same examination and passed that examination in the first attempt and secures 65% of marks or more but less than 75% of **grand total marks (university examination + internal assessment)** prescribed will be declared to have passed the examination in First Class.
- c. A candidate having appeared in all the subjects in the same examination and passed that examination in the first attempt and secures 50% of marks or more but less than 65% of **grand total marks (university examination + internal assessment)** prescribed will be declared to have passed the examination in Pass Class.
- d. A candidate passing a university examination in more than one attempt shall be placed in Pass class irrespective of the percentage of marks secured by him/her in the examination.

Note: Please note fraction of marks will not be rounded off for clauses (a), (b) and (c)

Appointment of Examiners

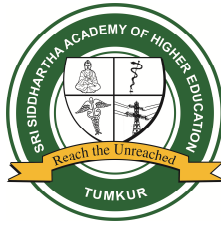
- a. Person appointed as an examiner in the particular subject must have at least four years of total teaching experience as assistant professor after obtaining postgraduate degree in the subject in a college affiliated to a recognized/approved/permitted medical college.
- b. For the Practical/ Clinical examinations, there shall be at least four examiners for 100

learners, out of whom not less than 50% must be external examiners. Of the four examiners, the senior-most internal examiner will act as the Chairman and coordinator of the whole examination programme so that uniformity in the matter of assessment of candidates is maintained. Where candidates appearing are more than 100, two additional examiners (one external & one internal) for every additional 50 or part thereof of candidates appearing, be appointed.

- c. External examiners may not be from the same University.
- d. The internal examiner in a subject shall not accept external examinership for a college from which external examiner is appointed in his/her subject.
- e. A University having more than one college shall have separate sets of examiners for each college, with internal examiners from the concerned college.
- f. External examiners shall rotate at an interval of 2 years.
- g. There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions.
- h. All eligible examiners with requisite qualifications and experience can be appointed internal examiners by rotation in their subjects.
- i. All theory paper assessment should be done as central assessment program (CAP) of concerned university.
- j. Internal examiners should be appointed from same institution for unitary examination in same institution. For pooled examinations at one centre approved internal examiners from same university may be appointed.

The grace marks up to a maximum of five marks may be awarded at the discretion of the University to a learner for clearing the examination as a whole but not for clearing a subject resulting in exemption

Sri Siddhartha Academy of Higher Education, Tumkur



Internal Medicine Curriculum including Respiratory Medicine

as per

Competency Based Curriculum

**SSAHE Internal Medicine Curriculum as per the new
Competency Based Curriculum**

Preamble

The NMC envisages that the Indian Medical Graduate should function as the Physician of first contact in the community, to provide holistic health care to the evolving needs of the nation and the world. To fulfil this, the IMG should be able to perform the following roles: a clinician, a communicator, a lifelong learner, a professional and a team leader.

Competency-based medical education (CBME) is an outcomes-based training model that has become the new standard of medical education internationally. This new curriculum is being implemented across the country and the first batch has been enrolled since the academic year 2019. The regulatory and accrediting body NMC had started the process by training faculty across the country in the key principles of CBME and developing key competencies for each specialty with the input from expert groups under each specialty.

The NMC, in the Graduate medical regulations 2019, has provided the list of internal medicine competencies required for an IMG and these have been included in this document.

The document begins with the goals and objectives of the medicine curriculum, then a summary of phase wise hours allotted to internal medicine and their distribution across didactic lecture, small group discussion and self-directed learning. Subsequently, this document suggests phase wise topics in the 4 clinical postings, directory of minimum cases to be seen, and suggested clinical assessment methods for the postings. The blueprint for theory exams and sample question paper is also included.

This is followed by the competencies to be delivered, along with the SLOs, suggested TL methods, and suggested assessment methods.

The document also includes the competencies of Respiratory medicine. They have been divided into the three main domains of teaching-learning.

Goals and Objectives of the medicine curriculum

Goals

The broad goal of the medicine curriculum is to equip the IMG with sufficient knowledge, skills and attitude to diagnose and appropriately treat common disorders affecting the adult population.

Objectives

A) Knowledge

At the end of the course student should be able to:

- a. Describe the pathophysiology of common diseases of adults
- b. Describe the clinical features, diagnosis and management of the above
- c. Be well versed with the preventive aspects of the internal medical curriculum, specifically patient education, lifestyle modification and adult vaccination.

(B) Skills

At the end of the course the student should be able to:

- a. Demonstrate the ability to elicit a detailed clinical history and perform a general physical and systemic examination, in outpatient and inpatient settings.
- b. Demonstrate the ability to apply the elicited history and examination to arrive at correct diagnosis and plan treatment.
- c. Demonstrate the ability to deliver immediate care to commonly seen emergencies prior to referral to higher centre.

C) Attitude and communication skills

At the end of the course the student should be able to:

- a. Communicate effectively with patients, their families and the public at large
- b. Communicate effectively with peers and teachers demonstrate the ability to work effectively with peers in a team.
- c. Demonstrate professional attributes of punctuality, accountability and respect for teachers and peers.
- d. Appreciate the issues of equity and social accountability

Summary of course content, teaching and learning methods and student assessment for the undergraduate (MBBS) Curriculum in Internal medicine –

Distribution of hours :

| Phase | Lecture | Small group discussion | Self-directed learning |
|-----------------|---------|------------------------|------------------------|
| Phase 2 | 25 | | |
| Phase 3, part 1 | 25 | 35 | 5 |
| Phase 3, part 2 | 70 | 125 | 15 |

Time allotted excludes time reserved for internal / University examinations, and vacation.

Teaching-learning methods shall be learner centric and shall predominantly include small group learning, interactive teaching methods and case-based learning. Didactic lectures not to exceed one-third of the total teaching time. 25% of allotted time (non-clinical time) of third Professional shall be utilized for integrated learning with pre- and para- clinical subjects. This will be included in the assessment of clinical subjects.

The teaching learning activity focus should be on application of knowledge rather than acquisition of knowledge.

The curricular contents shall be vertically and horizontally aligned and integrated to the maximum extent possible to enhance learner's interest and eliminate redundancy and overlap.

Small group discussion (SGD) may include the following

- 1.Tutorials
- 2.Case based discussion
3. Skill lab sessions

Unless otherwise mentioned, in the TL methods suggested in the competency table, SGD sessions are for 2 hours, and lectures for 1 hour and skill lab sessions are for 4 hours

Phase wise competencies suggested

Phase 2 : Introduction to history taking, introduction to systems

Phase 3 part 1 : 4,6,9,11,12,16,25

Phase 3 part 2 : remaining competencies and pandemic module

Suggested SDL topics, both Phases together. The individual institutions can modify according to their need.

Topics for self-directed learning in Phase 1 (1 hour each)

1. KFD/ JE
2. Acromegaly & hyperprolactinemia
3. Posterior pituitary disorders
4. Sideroblastic anemia
5. Haemolytic anemias

Topics for SDL in phase 2

1. Introduction to cardiovascular disease in adults
2. Cardiomyopathies
3. Pneumoconiosis
4. Nephrotic syndrome
5. Epilepsy
6. Drug induced liver injury
7. Hepatic transplantation
8. physiologic effects of acute blood and volume loss
9. therapy of bee sting allergy
10. Heat stroke
11. medico legal aspects of suspected suicidal or homicidal poisoning
12. multiple endocrine neoplasia syndrome
13. Autoimmune hepatitis
14. Systemic sclerosis
15. Primary biliary cirrhosis

Clinical posting, certifiable skills, case matrix, clinical skills assessment , clerkship , skill lab topics

Acquisition and certification of skills shall be through experiences in patient care, diagnostic and skill laboratories. Use of skill lab to train undergraduates in listed skills should be done mandatorily.

The clinical postings in the second professional shall be 15 hours per week (3 hrs per day from Monday to Friday)
The clinical postings in the third professional part II shall be 18 hours per week (3 hrs per day from Monday to Saturday)

Acquisition and certification of skills shall be through bedside clinics, clerkship (student doctor) , diagnostic and skill laboratories.

Clinical postings – phase wise objectives

Posting 1 : The student , at the end of the posting, would have practiced the following

A. Building a rapport with the patient

Eliciting history in native language of patient

Examining vital signs – pulse, blood pressure, temperature, jugular venous pressure

General physical examination – pallor, icterus, cyanosis, lymphadenopathy, edema

Observation of systemic examination

Posting 2

Practice of skills attained in posting 1

Systemic examination (inspection, palpation, percussion, auscultation) of cardiovascular system, respiratory system, abdomen, and central nervous system

Posting 3

Practice of skills attained in posting 1 and 2

Fluent, confident systemic examination

Ability to distinguish between normal and abnormal physical findings

Collating history and examination findings to arrive at differential diagnoses

Posting 4

Practice and refinement of skills attained in postings 1, 2 and 3

Certifiable skills

| | | |
|---|---|---------------------------|
| | | |
| | Perform and interpret a capillary blood glucose test | IM 11.12 |
| 2 | Perform and interpret a urinary ketone estimation with a dipstick | IM 11.13 |
| 3 | Describe and discuss the indications for and insert a peripheral intravenous catheter | IM 10.21 |
| 4 | Perform and interpret a 12 lead ECG | IM 1.18, IM 2.10, IM 8.17 |
| 5 | Describe and discuss the indications to perform an ABG and to interpret the results. to perform arterial blood gas analysis: interpret the data | IM 10.20 |
| 6 | Perform and demonstrate in a mannequin BLS | IM 2.22 |
| 7 | Perform and interpret a gram stain and AFB stain | IM 3.14, IM 6.14 |
| 8 | Describe, perform and interpret a peripheral smear and stool occult blood | IM 9.10 |

Case matrix

| Sl. No. | Topic/System | Case |
|---------|--|--|
| 1. | Cardiovascularsystem | Heart Failure Coronary Artery Disease Hypertension Valvular heart disease |
| 2. | Respiratory System | Pneumonia Pleural effusion Fibrosis COPD |
| 3. | Gastrointestinal andhepatobiliary System | Hepatitis GI Bleed Diarrheal disorders |
| 4. | Central NervousSystem | Cerebrovascular accident Movement disorders Peripheral Neuropathy Spinal Cord Disorders |
| 5. | Endocrine system | Diabetes Mellitus Thyroid disorders Obesity |
| 6. | Infectious diseases | Fever and febrile disorders HIV Miscellaneous Infections |
| 7. | Musculoskeletal System | Rheumatological disorders |
| 8. | Nutrition | Anemia Nutrition and vitamin deficiencies |

| | | |
|-----|---------------|--|
| 9. | Geriatrics | Comprehensive geriatric assessment |
| 10. | Renal System | Acute kidney injury and chronic kidney disease |
| 11. | Miscellaneous | Common Malignancies Envenomation Poisoning |

Clerkship: should be mandatorily implemented, from 1st clinical postings in Medicine .

The goal of this type of T-L activity is to provide learners with experience in longitudinal patient care, being part of the health care team, and participate in hands-on care of patients in outpatient and inpatient setting. During the 1st clinical postings, the students are oriented to the working of the department. During the subsequent clinical posting the students are allotted patients, whom they follow-up through their stay in the hospital, participating in that patient's care including case work-up, following-up on investigations, presenting patient findings on rounds, observing surgeries if any till patient is discharged.

Goal: To provide learners with experience in:

- (a) Longitudinal patient care,
- (b) Being part of the health care team,
- (c) Hands-on care of patients in outpatient and inpatient setting.
- (d) No learner will be given independent charge of the patient
- (e) The supervising physician will be responsible for all patient care decisions

The learner will function as a part of the health care team with the following responsibilities:

Be part of the unit's outpatient services on admission days,
Remain with the admission unit until 6 PM except during designated class hours,

Be assigned patients admitted during each admission day for whom he/she will undertake responsibility, under the supervision of a senior resident or faculty member,

Participate in the unit rounds on its admission day and will present the assigned patients to the supervising physician,

Perform simple tasks, including nebulisation, patient education

Follow the patient’s progress throughout the hospital stay until discharge,

Participate, under supervision, in procedures, surgeries, deliveries etc. of assigned patients

Participate in unit rounds on at least one other day of the week excluding the admission day, Discuss ethical and other humanitarian issues during unit rounds,

Attend all scheduled classes and educational activities,

Document his/her observations in a prescribed log book / case record.

Clerkship phase wise

| Year of Curriculum | Focus of Learner - Doctor programme |
|--------------------|--|
| Year 1 | Introduction to hospital environment, early clinical exposure, understanding perspectives of illness |
| Year 2 | History taking, physical examination, assessment of change in clinical status, communication and patient education |
| Year 3 | All of the above and choice of investigations, basic procedures and continuity of care |
| Year 4 | All of the above and decision making, management and outcomes |

Eligibility to appear for Professional examinations

(a) Attendance

- 1. Attendance requirements are 75% in theory and 80% in practical /clinical for eligibility to appear for the examinations in that subject. In subjects that are taught in more than one phase – the learner must have 75% attendance in theory and 80% in practical in each phase of instruction in that subject.
- 2. If an examination comprises more than one subject (for e.g., Internal Medicine and allied branches), the candidate must have 75% attendance in each subject and 80% attendance in each clinical posting.
- 3. Learners who do not have at least 75% attendance in the electives will not be eligible for the Third Professional - Part II examination.

(b) Internal Assessment:

Theory assessment

A 100-mark question paper covering the topics of part 1 may be conducted. Mark division will be as follows:

| |
|------------------------------------|
| 100 marks |
| Long essay 2X10= 20 |
| Short essay 6x5=30 marks |
| Short answer question 10x3=30marks |
| MCQs 20x1=20marks |

A minimum of 80% of the marks should be from the must know component of the curriculum. A maximum of 20% can be from the desirable to know component. All main essay questions to be from the must know component of the curriculum.

One main essay question to be of the modified variety containing a clinical case scenario. At least 30% of questions should be clinical case scenario based. Questions to be constructed to test higher cognitive levels.

Internal Assessment

Progress of the medical learner shall be documented through structured periodic assessment that includes formative and summative assessments. Logs of skill-based training shall be also maintained.

Log book

1. (a) A designated faculty member in each unit will coordinate and facilitate the activities of the learner, monitor progress, provide feedback and review the log book/ case record.
2. (b) The log book/ case record must include the written case record prepared by the learner including relevant investigations, treatment and its rationale, hospital course, family and patient discussions, discharge summary etc.
3. (c) The log book should also include records of patients assigned. Submission of the log book/ case record to the department is required for eligibility to appear for the final examination of the subject.

There shall be no less than four theory internal assessment (One each in 2nd MBBS and 3rd MBBS Part1 and Two in 3rd MBBS Part2) excluding the prelims in Medicine. An end of posting clinical assessment shall be conducted for each of the clinical postings in Medicine. Internal assessment may be conducted as follows

AETCOM assessment will include: (a) Written tests comprising of short notes and creative writing experiences, (b) OSCE based clinical scenarios / viva voce

The competencies to be delivered in AETCOM have been summarized at the end of the competency table. The question paper must include a least one question based on AETCOM competencies covered in that phase. AETCOM competencies must also be tested in the viva voce.

Internal assessment at the end of clinical postings

Internal assessment marks at the end of each posting will be a sum of log book (documentation of skills practiced, clerkship, assessment of behaviour in posting) and clinical internal assessment marks. Internal assessment may be conducted as follows in postings

Posting 1 – long case focusing on history, vital signs and general physical examination

Posting 2 – OSCE with the following stations – history, vital signs, general physical examination, CVS, RS, Abdomen, CNS, diagnostic skills, communication

Posting 3 – Long case or OSLER (Objective Structured Long Examination Record)

Posting 4 – short case and/or long case

There will be one Theory and Clinical preliminary exam before the student is eligible for university exams.

Day to day records and logbook (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

Learners must secure at least 50% marks of the total marks (combined in theory and clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in Medicine to be eligible for appearing at the final University examination.

Internal assessment marks will reflect as separate head of passing at the summative examination.

The results of internal assessment should be displayed on the notice board within 1-2 weeks of the test.

Remedial measures should be offered to students who are either not able to score qualifying marks or have missed on some assessments due to any reason.

Learners must have completed the required certifiable competencies for that phase of training and Medicine logbook entry completed to be eligible for appearing at the final university examination.

University examinations

University examinations Third Professional Part II - (Final Professional) examination shall be at the end of training (14 months including 2 months of electives) in the subjects of General Medicine, General Surgery, Obstetrics & Gynaecology and Paediatrics.

The discipline of Psychiatry and Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis will constitute 25% of the total theory marks in General Medicine incorporated as a separate section in paper II of General Medicine.

University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimal level of skills, ethical and professional values with clear concepts of the fundamentals which are necessary for him/her to function effectively and appropriately as a physician of first contact. Assessment shall be carried out on an objective basis to the extent possible.

Marks allotted

| Medicine | Theory | Clinical examination |
|--------------------|--|---|
| Total marks | 2 papers of 100 marks each for Medicine . The pattern of each question paper is given below | 200 marks |
| | Long essay 2X10= 20 | One long case for 80 marks |
| | Short essay 6x5=30 marks | Two short cases for 40 marks each |
| | Short answer question 10x3=30marks | Viva-voce for 40 marks. Station-1: Xray & ECG Station-2: Instruments Station-3: Specimens Station-4: Drugs & case scenarios |
| | MCQs 20x1=20marks | |

The theory paper should include different types such as structured essays, short essays, Short Answers Questions (SAQ) and MCQs (Multiple Choice Questions). Marks for each part should be indicated separately.

A minimum of **80%** of the marks should be from the **must know** component of the curriculum. A maximum of **20%** can be from the **desirable to know** component. All **main essay questions** to be from the **must know component** of the curriculum.

One main essay question to be of the **modified variety** containing a clinical case scenario. At least 30% of questions should be clinical case scenario based. Questions to be constructed to test higher cognitive levels.

Clinical examinations will be conducted in the hospital wards. Clinical cases kept in the examination must be of common conditions that the learner may encounter as a physician of first contact in the community. Selection of rare syndromes and disorders as examination cases is to be discouraged. Emphasis should be on candidate's capability to elicit history, demonstrate physical signs, write a case record, analyse the case and develop a management plan.

Viva/oral examination should assess approach to patient management, emergencies, attitudinal, ethical, and professional values. Candidate's skill in interpretation of common investigative data, X-rays, identification of specimens, ECG, etc. is to be also assessed.

At least one question in each paper of the clinical specialties in the University examination should test knowledge competencies acquired during the professional development programme. Skill competencies acquired during the Professional Development Programme must be tested during the clinical, practical and viva voce.

There shall be one main examination in an academic year and a supplementary to be held not later than 90 days after the declaration of the results of the main examination.

Pass criteria

Internal Assessment: 50% combined in theory and practical (not less than 40% in each) for eligibility for appearing for University Examinations

University Examination: Mandatory 50% marks separately in theory and clinicals (clinicals = clinical + viva)

The grace marks up to a maximum of five marks may be awarded at the discretion of the University to a learner for clearing the examination as a whole but not for clearing a subject resulting in exemption.

Appointment of Examiners

Person appointed as an examiner in the subject must have at least four years of total teaching experience as assistant professor after obtaining postgraduate degree in the subject in a college affiliated to a recognized/approved/permitted medical college.

For the Practical/ Clinical examinations, there shall be at least four examiners for 100 learners, out of whom not less than 50% must be external examiners. Of the four examiners, the senior-most internal examiner will act as the Chairman and coordinator of the whole examination programme so that uniformity in the matter of assessment of candidates is maintained.

Where candidates appearing are more than 100, two additional examiners (one external & one internal) for every additional 50 or part there of candidates appearing, be appointed.

All eligible examiners with requisite qualifications and experience can be appointed as internal examiners by rotation

External examiners may not be from the same University.

There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions.

All theory paper assessment should be done as central assessment program (CAP) of concerned university.

BLUEPRINT FOR ASSESSMENT

RATIONALE BEHIND THE BLUEPRINTING WITH EXCERPTS FROM NMC DOCUMENT ON ASSESSMENT

As per NMC guidelines, a balance should be drawn between the action verbs which are specified in the Bloom’s taxonomy along with a balance of the topics of the curriculum

Levels of Bloom’s Taxonomy with Suggested Verbs in the questions are specified below.

| | |
|----------------------|---|
| Knowledge | Define, Describe, Draw, Find, Enumerate, Cite, Name, Identify, List, label, Match, Sequence, Write, State |
| Comprehension | Discuss, Conclude, Articulate, Associate, Estimate, Rearrange, Demonstrate understanding, Explain, Generalise, Identify, Illustrate, Interpret, Review, Summarise |
| Application | Apply, Choose, Compute, Modify, Solve, Prepare, Produce, Select, Show, Transfer, Use |
| Analysis | Analyse, Characterise, Classify, Compare, Contrast, Debate, Diagram, Differentiate, Distinguish, Relate, Categorise |
| Synthesis | Compose, Construct, Create, Verify, Determine, Design, Develop, Integrate, Organise, Plan, Produce, Propose, rewrite |
| Evaluation | Appraise, Assess, Conclude, Critic, Decide, Evaluate, judge, Justify, Predict, Prioritise, Prove, Rank |

The blueprint for Internal Medicine theory paper indicating the topics and marks allotted for each are given below. The blueprinting provided is an estimate only, the spirit of the blueprint must be honoured while setting the paper. This document will guide teachers/ students and evaluators on what to focus on. The focus should be on providing clinical oriented questions rather than purely theoretical questions

The distribution of topics in paper 1 and paper 2 in Internal Medicine is also given below. The given division of topics is only a guideline, as the topics are often a continuum, making clear demarcation difficult.

| Number | Topic | Marks on 200 |
|--------|--|--------------|
| 1 | Heart failure | 10 |
| 2 | Acute Myocardial infarction | 9 |
| 3 | Pneumonia | 9 |
| 4 | Basic sciences including Pharmacology | 10 |
| 5 | Fever and febrile syndromes (miscellaneous infections) | 12 |
| 6 | Liver disease | 6 |
| 7 | HIV | 4 |
| 8 | Rheumatological disease | 6 |
| 9 | HTN | 10 |
| 10 | Anaemia and other blood disorders | 8 |
| 11 | AKI/CKD | 8 |
| 12 | DM | 10 |
| 13 | Thyroid and other endocrine disorders | 5 |
| 14 | Common malignancies | 4 |
| 15 | obesity | 5 |
| 16 | GI bleeding | 4 |

| | | |
|----|---|-----|
| 17 | Diarrhoeal diseases | 5 |
| 18 | Headache | 6 |
| 19 | Cerebrovascular accidents | 10 |
| 20 | Envenomation | 4 |
| 21 | Movement disorder | 2 |
| 22 | Poisonings | 7 |
| 23 | Mineral, Fluid Electrolyte and Acid base Disorder | 10 |
| 24 | Nutritional and Vitamin Deficiencies | 5 |
| 25 | Geriatrics | 6 |
| 26 | Chronic respiratory diseases | 10 |
| 27 | Dermatology | 7 |
| 28 | Psychiatry | 8 |
| | Total marks | 200 |

Distribution of topics In Paper 1 and Paper 2 for University Examination

| Internal Medicine Paper 1 | | Internal Medicine paper 2 | |
|---------------------------|---|---------------------------|---|
| | Topic | | Topic |
| 1 | Basic sciences including pharmacology | 1 | Psychiatry |
| 2 | Nutrition including obesity | 2 | Dermatology |
| 3 | Cardiovascular disorders | 3 | Respiratory diseases including Pneumonia and Tuberculosis |
| 4 | Gastrointestinal disorders including diarrheal diseases | 4 | Geriatrics |
| 5 | Immunology including rheumatology | 5 | Central nervous system including Headache, movement disorder |
| 6 | Diabetes and other endocrine disorders | 6 | Infectious diseases including PUO and HIV |
| 7 | Hypertension | 7 | Nephrology |
| 8 | Poisoning, envenomation and environmental disorders | 8 | Haematology- oncology including Anemia and other malignancies |

Competency & SLO table : competencies in 3rd MBBS Part 1 : 4,6,9,11,12,16,25. All others in 3rd MBBS Part 2. The following are guidelines, and modifications may be made in SLOs, TL methods and assessment based on institution infrastructure and practices.

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|----------------------|--|---|----------------------------|------------------------------|-----------------------|
| Topic: Heart Failure | | | | | |
| IM1.1 | Introduction to cardiovascular disease in adults | 1. Describe and discuss the epidemiology of common causes of heart disease including: rheumatic/ valvular, ischemic, hypertrophic inflammatory | SDL | Short essay | Pathology, Physiology |
| IM1.2,1.4,1.5 1.6 | Heart failure | 1. Describe and discuss the genetic basis of forms of heart failure 2. Stage heart failure 3. Describe ,discuss and differentiate the processes involved in heart failure with reduced Vs preserved ejection fraction 4. Describe and discuss the compensatory mechanisms involved in heart failure including cardiac remodeling and neurohormonal adaptations | Lecture | EQ | Pathology, Physiology |
| 1.7,1.23,1.26 1.27 | Treatment of heart failure | 1. Develop management plan for patient with heart failure 2. Enumerate, describe and discuss the factors that exacerbate heart 3. Describe, prescribe and communicate non pharmacologic management of heart failure including sodium restriction, physical activity and limitations | Case based discussion | MEQ | |
| 1.24 | Pharmacotherapy of heart failure | 1. Describe and discuss the pharmacology of drugs including indications, contraindications in the management of heart failure including diuretics, ACE inhibitors, Beta blockers, | Small group discussion | Short essay Viva voce | |

| | | | | | |
|----------------|-----------------|---|---------|--|-----------------------|
| | | aldosterone antagonists and cardiac glycosides | | | |
| IM1.3,1.9,1.27 | Rheumatic fever | <ol style="list-style-type: none"> 1. Describe and discuss the etiopathogenesis & clinical evolution of rheumatic fever, modified Jones criteria, and rheumatic valvular heart disease and its complications including infective endocarditis 2. Describe and discuss the clinical presentation and features, diagnosis, recognition and management of acute rheumatic fever 3. Describe and discuss the role of penicillin prophylaxis in the prevention of rheumatic heart disease | Lecture | SEQ Viva voce | Pathology |
| IM1.8 | Arrhythmias | <ol style="list-style-type: none"> 1. Describe and discuss the pathogenesis and development of common arrhythmias 2. Discuss the classification, etiopathogenesis, clinical features diagnosis and management of atrial fibrillation | Lecture | <ol style="list-style-type: none"> 1. Short essay question 2. ECG interpretation in OSCE station 3. Viva voce | Pathology, Physiology |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|-----------------------|--|--|---|--|----------------------|
| IM1.10,1.11 | History and examination in cardiovascular disease | 1. 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 2. Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and estimate its severity including | Small group discussion followed by Bedside clinic | Long case | |
| IM1.12,1.13,1.14,1.15 | Vital signs and their interpretation in CVS case Cardiovascular examination | 1. Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure 2. Measure the blood pressure accurately, recognize and discuss alterations in blood pressure in valvular heart disease and other causes of heart failure and cardiac tamponade 3. Demonstrate and measure jugular venous distension 4. Identify and describe the timing, pitch quality conduction and significance of precordial murmurs and their variations | Small group discussion Bedside clinic | Physical examination station in OSCE Short case | |
| IM1.16,1.17,1.19 | Investigations in heart disease | 1. Generate a differential diagnosis based on the clinical presentation and prioritize it based on the most likely diagnosis 2. Order and interpret diagnostic testing based on the clinical diagnosis including 12 lead ECG, Chest radiograph, blood cultures 3. Enumerate the indications for and describe the findings of heart | Clerkship Small group discussion | Documentation in logbook Problem based short essay question | |

| | | | | | |
|-------------|-------------------------------------|--|-------------------------------------|--------------------------|--|
| | | failure with the following conditions including: 2D echocardiography, brain natriuretic peptide, exercise testing, nuclear medicine testing and coronary angiogram | | | |
| IM1.18,2.10 | Perform and interpret a 12 lead ECG | | Small group discussion Clerkship | Documentation in logbook | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|--------------|--|---|-------------------------------|--|----------------------|
| IM1.20, 1.25 | Introduction to Valvular heart disease | 1. 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 2. Enumerate the indications for valvuloplasty, valvotomy, coronary revascularization and cardiac transplantation | Lecture | Short case Examination station in OSCE | |
| | Mitral valve disease | 1. Discuss the haemodynamics, etiopathogenesis, clinical features of mitral stenosis 2. Discuss the haemodynamics, etiopathogenesis, clinical features of mitral regurgitation | Lecture | | |
| | Aortic valve disease | 1. Discuss the haemodynamics, etiopathogenesis, clinical features of aortic stenosis 2. Discuss the haemodynamics, etiopathogenesis, clinical features of aortic regurgitation | Lecture | | |
| IM1.21 | Infective endocarditis | 1. Describe the clinical features of acute and subacute endocarditis, echocardiographic findings, blood culture and sensitivity and therapy | Lecture | SEQ | |
| IM1.22 | Phlebotomy and collecting specimen for culture | Assist and demonstrate the proper technique in collecting specimen for blood culture | DOAP session Clerkship | Skill assessment in OSCE station | Microbiology |

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| IM1.28 | Congenital heart disease in adults | <ol style="list-style-type: none"> 1. Enumerate common adult presentations of congenital heart disease and describe the distinguishing features between cyanotic and acyanotic heart disease 2. Discuss etiopathogenesis and prevention of congenital heart disease | Lecture | Short essay Short answer | |
| | ASD | <ol style="list-style-type: none"> 1. Discuss the embryology, haemodynamics , pathophysiology of ASD 2. Discuss the management of ASD | Lecture | | |
| | VSD, | <ol style="list-style-type: none"> 1. Discuss the embryology, haemodynamics , pathophysiology of VSD <p>Discuss the management of VSD</p> | Lecture | | |
| IM 1.29 | PDA | <ol style="list-style-type: none"> 1. Describe haemodynamics, clinical features, complications and management of patent ductus arteriosus | Lecture | Short essay Viva voce | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|-------------------------------|---|---|--|--|---|
| IM1.30 | Intramuscular injection | 1. Administer an intramuscular injection with aseptic precautions and appropriate explanation to the patient | Task trainer | Log book | Pharmacology |
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| IM2.1,2. 2,2.4,2.5, 2.9 | Ischemic heart disease | 1. Discuss the epidemiology of coronary artery disease 2. Discuss the aetiology of risk factors - modifiable & non-modifiable - of atherosclerosis and IHD 3. Discuss and describe the pathogenesis natural history, evolution and complications of atherosclerosis and IHD 4. Describe the approach to a case of stable angina | Lecture | Short essay | Pathology, Physiology, Community Medicine |
| IM2.3 | Lipid cycle | Discuss and describe the lipid cycle and the role of dyslipidemia in the pathogenesis of atherosclerosis | Lecture | Viva voce | Physiology, Biochemistry |
| IM2.6,2. 7,2.8 | Examination of patient with IHD | 1. Elicit appropriate history including onset evolution, presentation risk factors, family history, comorbid conditions, complications, medication 2. Perform, demonstrate and document a physical examination including a vascular and cardiac examination that is appropriate for the clinical presentation 3. Generate and present a differential diagnosis based on clinical presentation and prioritize based on “cannot miss”, most likely diagnosis and severity | Small group discussion followed by bedside clinics | Physical examination station in OSCE Short case | |
| IM2.9 | | 1. Distinguish and differentiate between stable and unstable angina and AMI based on the clinical presentation 2. Discuss emergent management of a case of acute coronary syndrome prior to referral to a tertiary centre | Case based discussion | History station in OSCE | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|--|--|---|--|--|----------------------|
| IM2.11,2.12, 2.13 | Investigations in IHD | 1.Order and interpret markers of acute myocardial infarction 2. Choose and interpret a lipid profile and identify the desirable lipid profile in the clinical context 3. Discuss and enumerate the indications for and findings on echocardiogram, stress testing and coronary angiogram | Small group discussion Case based discussion | Data interpretation station I OSCE Viva voce | |
| IM2.14,2.15, 2.16, 2.18, 2.19, 2.20 ,2.23 | Acute coronary syndrome | 1. Discuss pathogenesis, recognition and management of ACS & its complications 2. Discuss indications for admission to a CCU 3. Discuss indications for acute thrombolysis, PTCA and CABG 4. Discuss indications, formulations, doses, side effects and monitoring for drugs used in the management of dyslipidemia 5. Describe indications for nitrates, anti-platelet agents, gpIIb IIIa inhibitors, beta blockers, ACE inhibitors etc. in the management of coronary syndromes | Lecture | SEQ MEQ | |
| IM2.17 | Discuss and describe the indications and methods of cardiac rehabilitation | | Small group discussion Interdisciplinary learning with physiotherapy team | Short answer | |
| IM2.20 | Discuss and describe the assessment and relief of pain in acute coronary syndromes | | Lecture | Short answer | Pharmacology |
| IM2.21 | Observe and participate in a | | Skill lab session | NA | |

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| | controlled environment an ACLS program | | | | |
| IM2.22 | Perform and demonstrate in a mannequin BLS | | Skill lab session | Skill assessment | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|------------------------------|---|---|--|---------------------------------|--|
| IM2.24 | Counselling | 1. Counselling patient with IHD 2. Communication with empathy of lifestyle changes in patients with atherosclerosis | Small group discussion Clerkship | Counselling station in OSCE | AETCOM |
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| IM3.1,3.2,3.3, | Pneumonia | 1. Define community acquired pneumonia, nosocomial pneumonia and ventilator associated pneumonia 2. Discuss etiology of pneumonia depending on setting and patient immune status 3. Describe pathogenesis, clinical features and complications of pneumonia | Lecture | Short essay | Human Anatomy, Pathology, Microbiology |
| 3.11, 3.12, 3.13, 3.15, 3.16 | Investigations and treatment of pneumonia | 1. Enumerate indications for HRCT, Viral cultures, PCR 2. Select appropriate empirical antimicrobial based on the likely etiology 3.. Describe and enumerate the indications for hospitalization in patients with pneumonia 4. Describe and enumerate the indications for isolation and barrier nursing in patients with pneumonia | Lecture | Case based MCQ Short answer | |
| IM3.4,3.5.3.6,3.7 | History and examination in pneumonia | 1. Elicit document and present an appropriate history including the | Small group discussion Bedside clinic | Short case | |

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| | | evolution, risk factors including immune status and occupational risk 2. Demonstrate general & systemic examination to confirm diagnosis, severity and complications 3. Generate differential diagnosis based on history and examination 4. Order and interpret diagnostic tests based on the clinical presentation | | | |
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| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|------------------|---|--|-------------------------------------|------------------------------|----------------------|
| IM3.8 | Perform ABG | Demonstrate in a mannequin & interpret results of an arterial blood gas examination | Skill lab | Skill assessment | |
| IM3.9 | Perform pleural aspiration | Demonstrate in a mannequin and interpret results of a pleural fluid aspiration | Skill lab | Skill assessment | |
| IM3.10 | Blood culture | Demonstrate the correct technique in a mannequin and interpret results of a blood culture | DOAP session | Skill assessment | Microbiology |
| IM3.14 | Gram stain & AFB | Perform and interpret a sputum gram stain and AFB | Clerkship (side lab) | Documentation in logbook | Microbiology |
| IM3.17 | Oxygen therapy | Discuss advantages & disadvantages of methods of supplemental oxygen delivery Choose method of supplemental oxygen delivery | Lecture | Short answer | |
| IM3.18 IM3.19 | Counselling | Communicate and counsel patient and family on the diagnosis and therapy of pneumonia Educate and motivate patients for pneumococcal and influenza vaccine | Small group discussion Clerkship | Documentation in logbook | |

| Number | COMPETENCY The student should be able to | SLOs: By the end of the session the student will be able to describe/discuss/demonstrate | TL methods | Suggested Assessment methods | Vertical Integration |
|----------------------|---|--|---|--|----------------------------------|
| IM4.1,4.2,4.4 4.5 | Describe and discuss the febrile response | <ol style="list-style-type: none"> 1. The influence of host immune status, risk factors and comorbidities on the febrile response 2. The influence of special populations on the febrile response including: the elderly, immune suppression, malignancy and neutropenia, HIV 3. The pathophysiology and manifestations of inflammatory causes of fever 4. The pathophysiology and manifestations of malignant causes of fever including hematologic and lymph node malignancies | Lecture | <ol style="list-style-type: none"> 1. LEQ 2. MEQ | Microbiology |
| IM4.3 | Discuss and describe the common causes, pathophysiology and manifestations of fever in various regions in India | <ol style="list-style-type: none"> 1. Pathophysiology, clinical features of Dengue 2. Pathophysiology, clinical features of Chikungunya 3. Pathophysiology, clinical features of typhus | Lecture | SEQ | Microbiology, Community Medicine |
| IM4.6, 4.23,4.26 | Discuss and describe the pathophysiology clinical features, diagnosis and treatment of malaria | <ol style="list-style-type: none"> 1. Epidemiology, etiopathogenesis of malaria 2. Diagnosis of malaria 3. Complications and treatment of malaria 4. Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national programs. 5. Discuss the pharmacology, indications, drug reactions, and basis of resistance in antimalarial drugs 6. Counsel the patient on malarial prevention | Lecture followed by Case based learning | SEQ | Microbiology Pharmacology |
| IM4.7 | Discuss and describe the pathophysiology and manifestations of the sepsis syndrome | <ol style="list-style-type: none"> 1. Etiopathogenesis of sepsis 2. Clinical features and Diagnosis of sepsis | Lecture | EQ | |

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| | | 3. Management of sepsis : antibiotics, vasopressors, mechanical ventilation | | | |
| IM4.8, 4.16 | 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 | 1. Definition of FUO 2. Causes of PUO, as relevant to India 3. Investigation and Diagnosis of PUO 4. 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 | Lecture followed by Small group discussion | Written | Microbiology |
| IM4.9,4.10, | History and examination in fever case | 1. evolution and pattern of fever 2. associated symptoms 3. immune status, comorbidities, risk factors, exposure 4. Perform physical examination in a case of fever : including skin mucosae, lymph node examination, chest, liver, spleen | Case based discussion Bedside clinic | History station in OSCE | Microbiology |

| Number | COMPETENCY The student should be able to | SLOs | TL methods | Suggested Assessment methods | Vertical Integration |
|------------------------|---|--|---|---|----------------------|
| IM4.11,4.21,4.24, 4.25 | Generate a differential diagnosis and prioritize based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes | 5. List differentials for PUO after history and examination 6. Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritized and cost-effective manner 7. Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis | Case based discussion Bedside clinic | EQ Viva Communication station in OSCE | |

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| | | 8. Communicate diagnosis and treatment to patient family | | | |
| IM4.12,4.18 | Order and interpret the following diagnostic tests based on the differential diagnosis | 1. 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 2. Enumerate the indications for use of imaging in the diagnosis of febrile syndromes | Small group discussion Clerkship(learner doctor) | SEQ Viva Log book | Pathology, Microbiology |
| IM4.13,4.14, 4.15, 4.17,4.19 ,4.20 | Perform and interpret relevant investigations in case of fever | 1.sputum gram stain 2. sputum AFB 3. malarial smear 4. Observe & assist in performance of bone marrow aspiration & biopsy in simulated environment 5. Assist in the collection of blood and wound cultures 6. Interpret a PPD | Clerkship(learner doctor) | Log book | Microbiology |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|----------------|---|---|-------------------------------|---------------------------------|----------------------|
| IM5.1 | Hyperbilirubinemia | Describe and discuss the physiologic and biochemical basis of hyperbilirubinemia | Lecture | Written/viva voce | |
| IM5.2 IM5.3 | Hepatic injury | 1.Describe and discuss the aetiology and pathophysiology of liver injury 2.Describe and discuss the pathologic changes in various forms of liver disease | Lecture | Written/viva voce | |
| IM5.4 | Hepatitis | 1.Describe and discuss the epidemiology, microbiology, immunology and clinical evolution of infective (viral) hepatitis 2. Discuss the management of Hepatitis B & C | Lecture | Written/viva voce | |
| IM5.5 | Alcoholic liver disease | Discuss the etiopathogenesis, clinical features, diagnosis & management of alcoholic liver disease | Lecture | Written/viva voce | |
| IM5.6 | Cirrhosis & PHT | Describe and discuss the pathophysiology, clinical evolution and complications of cirrhosis and portal hypertension including ascites, spontaneous bacterial peritonitis, hepatorenal syndrome and hepatic encephalopathy | Lecture | Written/viva voce | |
| IM5.16 | Management of cirrhosis with PHT | Describe management of hepatitis, cirrhosis, portal hypertension, ascites spontaneous, bacterial peritonitis and hepatic encephalopathy | Lecture | Written/viva voce | |

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| IM5.7 | Drug induced liver injury | Enumerate and describe the causes and pathophysiology of drug induced liver injury | SDL | Short answer | |
| IM5.8 | Cholecystitis, cholelithiasis | Describe and discuss the pathophysiology, clinical evolution and complications cholelithiasis and cholecystitis | Lecture | Essay Viva voce | General Surgery |
| IM5.9 5.10 5.11 | History & examination in liver disease | 1. Elicit medical history in a case of liver disease including clinical presentation, risk factors, drug use, sexual history, vaccination history and family history 2. Perform a systematic examination that establishes the diagnosis and severity and complications of liver disease 3. Generate a differential diagnosis and prioritize based on clinical features that suggest a specific aetiology for the presenting symptom | Small group discussion Bedside clinic | Skill assessment | |
| IM5.12 5.13 5.14 | Investigations in liver disease | Choose and interpret appropriate diagnostic tests including: CBC, bilirubin, function tests, Hepatitis serology and ascitic fluid examination in patient with liver diseases. Enumerate modalities of investigations in liver disease and discuss indications, advantages and disadvantages of each Outline a diagnostic approach to liver disease based on hyperbilirubinemia, liver function changes and hepatitis serology | Lecture | Skill assessment | Pathology |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|--------|---|---|---|--|----------------------|
| IM5.15 | Ascitic tap | 1. Assist in the performance of an ascitic fluid analysis interpret the findings of ascitic fluid analysis | DOAP session Clerkship | documentation in log book | |
| IM5.17 | Vaccination in liver disease | 1. Enumerate the indications for vaccination in liver disease 2. counsel patients for vaccination in liver disease | 1. Visit to immunization clinic 2. Clerkship | 1. Viva voce 2. documentation in log book | Microbiology |
| IM5.18 | Hepatic transplantation | Enumerate the indications for hepatic transplantation | Lecture SDL | Written/ Viva voce | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested TL methods | Suggested Assessment methods | Vertical Integration |
|---|---|---|----------------------|------------------------------|----------------------|
| IM6.8,6.9, , 6.10, 6.11,6.16, 6.12, 6.17, 6.18,6.13 | Diagnosis and management of HIV AIDS , and opportunistic infections | 1.Enumerate the indications and describe the findings for CT , MRI, ABG, CXR 2. Describe and enumerate the indications and side effects of drugs for bacterial, viral and other types of diarrhoea 3. Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions 4.Discuss and describe the principles and regimens used in post exposure prophylaxis | Lecture | Short answer MCQ | |

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| | | 5.Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections | | | |
| IM6.14 | Perform and interpret AFB sputum | | DOAP session | Skill assessment | Microbiology |
| IM6.15 | Demonstrate in a model the correct technique to perform a lumbar puncture | | Simulation | Skill assessment | Microbiology |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|-------------------------------|--|---|---|-------------------------------|----------------------|
| IM6.19,6.20,6.21 6.22,6.23 | Counsel patients at diagnosis of HIV, and prevention of HIV transmission | <ol style="list-style-type: none"> 1. Communicate diagnosis, treatment plan and subsequent follow up plan to patients 2. Communicate with patients on the importance of medication adherence 3. Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV 4. Demonstrate a non-judgmental attitude to patients with HIV and to their lifestyles | Small group discussion Clinical clerkship Tag along | Communication station of OSCE | AETCOM |

| | Competencies | SLOs | Suggested TL methods | Suggested assessment | Vertical Integration |
|-----------------------------------|------------------------------|--|----------------------|--------------------------|----------------------|
| IM7.1 IM7.2 7.15 | Introduction to autoimmunity | 1.Describe the pathophysiology of autoimmune disease 2. Describe the genetic basis of autoimmune disease 3. Enumerate the indications for and interpret the results of : CBC, anti- CCP, RA, ANA, DNA and other tests of autoimmunity | Lecture | Short essay Viva voce | Pathology |
| 7.22 7.23 7.19 | Rheumatoid arthritis | 1.Describe the systemic manifestations of rheumatoid arthritis 2.Etiopathogenesis, clinical features, diagnosis of rheumatoid arthritis 3.Select, prescribe and communicate treatment option for rheumatoid arthritis 4.Describe the basis for biologic and disease modifying therapy in rheumatoid arthritis 5.Develop an appropriate treatment plan for patients with rheumatoid arthritis | Lecture | Essay question MEQ | Pathology |
| | SLE | 1.Describe the systemic manifestations of Systemic Lupus Erythematosus 2.Etiopathogenesis, clinical features, diagnosis of Systemic Lupus Erythematosus 3.Select, prescribe and communicate treatment option for Systemic Lupus Erythematosus 4.Describe the therapy of Systemic Lupus Erythematosus 5.Develop an appropriate treatment plan for patients with Systemic Lupus Erythematosus | Lecture | | |
| | Systemic sclerosis | Etiopathogenesis, clinical features & management of systemic sclerosis | Lecture | | |
| IM7.3 7.4 7.5 7.6 7.7 | Approach to joint pain | 1.Classify cause of joint pain based on the pathophysiology 2.Develop a systematic clinical approach to joint pain 3.Describe and discriminate acute, subacute and | Lecture | Written/ Viva voce | |

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| 7.8 7.10 | | chronic causes of joint pain 4.Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain 5.Discriminate articular from periarticular complaints 6.Determine the potential causes of join pain based on the presenting features of joint involvement 7.Describe the common signs and symptoms of articular and periarticular diseases | | | |
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| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|---|--|--|--|---|-----------------------|
| IM7.11 IM7.12 IM7.13 7.14 | History & examination in Rheumatoid arthritis | Elicit document and present a medical history that will differentiate the etiologies of disease 2. Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease 3. Generate a differential diagnosis and prioritize based on clinical features that suggest a specific aetiology 4. the appropriate diagnostic work up based on the presumed aetiology | Bedside clinic Small group discussion | Physical examination station in ISCE Short case | |
| IM7.16,7.17 | Investigations in rheumatologic disease | Enumerate the indications for arthrocentesis Enumerate the indications and interpret plain radiographs of joints | Case based discussion | Written/ Viva voce | |
| IM7.18-7.27 | Management & counselling in autoimmune diseases | 1.Communicate diagnosis, treatment plan and subsequent follow up plan to patients 2.Select, prescribe and communicate appropriate medications for relief of joint pain 3.Select, prescribe and communicate preventive therapy for crystalline arthropathies 4.Communicate and incorporate patient preferences in the choice of therapy 5.Develop and communicate appropriate follow up and monitoring plans for patients with rheumatologic conditions 6. Demonstrate an understanding of the impact of rheumatologic conditions on quality of life, well-being, work and family 7.. Determine the need for specialist consultation | Clerkship Case based discussion | Communication station in OSCE Short answer | |
| | Competency | SLOs | Suggested TL | Suggested assessment | Integration |
| IM8.1, IM8.2 IM8.3 IM8.4 IM8.5 8.7 | Hypertension | 1. Discuss the epidemiology, aetiology and the prevalence of primary and secondary hypertension 2. Discuss the pathophysiology of hypertension 3.define and classify hypertension and discuss the differences between primary and secondary hypertension | Lecture | Long essay | Pathology, physiology |

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| IM8.20 8.14 | | 4. discuss etiology and clinical features of secondary HTN 5. Develop an appropriate treatment plan for essential hypertension 6..determine the need for specialist consultation | | | | |
| IM8.6 IM8.8 IM 8.15 | Acute & chronic complications of HTN | 1. Discuss and recognize hypertensive urgency and emergency 2. Manage hypertensive emergencies 3. Discuss and identify target organ damage due to hypertension | Lecture | Clinical scenario based short essay | | |

| Number | Competency The student should be able to | SLOs | Suggested learning methods | Suggested assessment methods | Vertical integration | |
|-------------------------------------|---|--|---|---|----------------------|--|
| IM8.9 IM8.10 IM8.11 IM8.12 | Examination of a case of hypertension | 1.elicit medical history in a case of HTN 2.perform systematic including measurement of bp, fundus, examination of vasculature and heart 3. Generate a differential diagnosis 4. Describe the appropriate diagnostic work up based on the presumed aetiology | Small group discussion Bedside clinics | Short case | | |
| IM8.16 IM8.18 IM8.19 | | 1.develop and communicate to the patient lifestyle modification including weight reduction, moderation of alcohol intake, physical activity and sodium intake 2. Incorporate patient preferences in the management of HTN 3. Demonstrate understanding of the impact of hypertension on quality of life, well-being, work and family | Small group discussion Clerkship | Documentation in log book | | |
| IM8.17 | Perform and interpret a 12 lead ECG | | DOAP session | Documentati on in log book/ skills station | | |

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| IM9.1, 9.2, ,9.6, 9.7,9.8, 9.9,9.12 9.13 | Iron deficiency anemia | 1. Define & classify anemia 2. Describe morphology, aetiology and prevalence of various causes of anemia 3. Describe the diagnostic work up of anemia 4. describe the interpretation of the hemogram and the tests for iron deficiency | Lecture | Essay question | Pathology |
| IM9.3 | Elicit, document and present medical history in a case of anemia | 1. Enquire for symptoms of anemia 2. Possible causes : GI bleeding, prior history, medications, menstrual history, and family history | Bed side clinic | OSCE history station | |
| IM9.4 | Perform a general physical and relevant systemic examination in a case of anemia | 1. examination for pallor, icterus, lymphadenopathy, sternal tenderness, evidence of CTD 2. check for hyper dynamic circulation, spleen, liver | Bedside clinic | OSCE – physical examination station – general physical examination/abdomen | |
| IM9.5,9.11 | Generate a differential diagnosis in a case of anemia in order of likelihood and prioritize based on clinical features that suggest a specific aetiology | 1. given clinical features and hemogram in a case of anemia , to generate a differential diagnosis in order of likelihood | Small group discussion Case based learning | Modified essay question Data interpretation question | Pathology |
| IM9.9,9.13 | Macrocytic anemia | 1. list causes of macrocytic anemia 2. describe pathogenesis of various types of macrocytic anemia 3. Order and interpret for diagnosis of macrocytic anemia 4. Describe treatment of different causes of macrocytic anemia | Lecture class | SEQ | Pathology |
| IM9.10 | Perform bedside investigations in a case of anemia | 1. Perform and interpret peripheral blood smear 2. Check stool for occult blood | Clerkship(learner doctor) | Log book | Pathology |

| Number | COMPETENCY The student should be able to | SLOs | Suggested TL methods | Suggested Assessment methods | Vertical Integration |
|---------------------|--|---|---------------------------------|---|-------------------------------------|
| IM9.11 | Bone marrow biopsy | 1. Student should be able to enumerate the indications for bone marrow biopsy and describe the procedure of bone marrow biopsy | Small group discussion | Written/ Viva voce/ Skill assessment | Pathology |
| IM9.14 | Describe the national programs for anemia prevention | | Lecture | Written/ Viva voce | Pharmacology, Community Medicine |
| IM9.15,9.16 9.20 | Patient counselling in anemia | 1. Communicate the diagnosis and the treatment appropriately to patients 2. Incorporate patient preferences in treatment of anemia Communicate and counsel patients with methods to prevent nutritional anemia | DOAP session | Skill assessment | |
| IM9.17,9.18 | Blood transfusion | Describe the indications for blood transfusion and the appropriate use of blood components Describe the precautions required necessary when performing a blood transfusion | Lecture, Small group discussion | Viva voce | Pathology |
| IM9.19 | Assist in a blood transfusion | | Clerkship (learner doctor) | document in log book | |
| | Polycythemia | 1.define and classify polycythemia 2. discuss clinical features and differentiation of primary and secondary polycythemia 3.describe investigations and management of polycythemia rubra vera | Lecture | | |
| | Leukemia | 1. Enumerate leukemias common in adults 2. Describe clinical features of leukemia in adults 3. Discuss diagnosis and management of leukemia | Lecture | | |
| | Multiple myeloma | Describe the clinical features, diagnosis and management of multiple myeloma | Lecture | | |

| | | SLOs | Suggested TL method | Suggested assessment | Vertical integration |
|---|-----|---|---------------------|----------------------|----------------------|
| IM10.1 IM10.2 IM10.3 IM10.4 IM10.25 | AKI | 1. Define renal insufficiency. Distinguish between acute & chronic renal insufficiency 2. Describe the pathophysiology & causes of pre renal, renal and post renal AKI 3. Describe the evolution, natural history and treatment of AKI 4. Identify and describe the priorities in the management of ARF including diet, volume management, alteration in doses of drugs, monitoring and indications for dialysis | Lecture | Essay question | Pathology |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|--|--|--|---|---------------------------------|-------------------------|
| IM10.5 IM10.6 IM10.7 IM10.8 IM 10.27 IM 10.28 | CKD | <ol style="list-style-type: none"> 1. Discuss the aetiology of CKD 2. Stage Chronic Kidney Disease 3. discuss the pathophysiology & clinical features of uremia 4. discuss the significance of proteinuria in CKD 5. discuss the indications for hemodialysis 6. discuss renal replacement therapy | Lecture | Short essay | Pathology |
| IM10.9 IM10.10 IM10.11 IM10.26 | Complications of CKD | <ol style="list-style-type: none"> 1. discuss pathophysiology of anemia & hyperparathyroidism in CKD 2. discuss association between CKD glycemia and hypertension 3. discuss relationship between CAD risk factors and CKD 4. discuss supportive therapy in CKD | Lecture | Short answer | Pathology |
| IM10.12 IM10.13 IM10.14 | Examination of patient with renal disease | <ol style="list-style-type: none"> 1. Elicit history to differentiate between AKI & CKD and to suggest aetiology of renal disease 2. Perform systematic examination to establish diagnosis and stage of CKD, and features of uremia 3. Generate differential diagnosis to suggest specific etiology | Small group discussion Bedside clinic | Short case | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Number require d to certify | Vertical Integration |
|--|---|--|-------------------------------|--|--------------------------------------|----------------------|
| IM10.15 IM10.16 IM10.17 IM10.18 IM10.19 IM10.20 | Investigations in renal disease | 1.Describe the appropriate diagnostic work up based on presumed aetiology 2. Enumerate indications for and interpret the results of : renal function tests, calcium, phosphorus, PTH, urine electrolytes, osmolality, Anion gap 3.Describe and calculate indices of renal function 4. Identify ECG findings in hyperkalemia 5. Enumerate indications and describe findings in renal ultrasound 6. discuss indications to perform arterial blood gas analysis: interpret the data | Lecture | Skill assessment / Written/ Viva voce | | |
| IM10.21 IM10.22 | Femoral/jugular catheterization | 1. discuss indications for and insert a peripheral intravenous catheter 2. discuss the indications, demonstrate in a model and assist in the insertion of a central venous or a dialysis catheter | DOAP session, skill lab | document ation in logbook | | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|---|---|---|--|---------------------------------|----------------------|
| IM10.24 IM10.29 IM10.30 IM10.31 IM10.23 | Patient counselling & ethical issues | 1.Counsel patients on a renal diet 2.discuss and communicate the ethical and legal issues involved in renal replacement therapy | Small group discussion Clerkship | Documentation in logbook | |

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| | | 3. Recognize the impact of CKD on patient's quality of life well-being work and family 4. Incorporate patient preferences in to the care of CKD 5. Communicate diagnosis treatment plan and subsequent follow up | | | |
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| Number | COMPETENCY The student should be able to | SLOs | Suggested TL methods | Suggested Assessment methods | Vertical Integration |
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| IM11.1 IM11.2 IM11.3 IM11.4 | Diabetes | 1. Define and classify diabetes 2. Discuss the epidemiology and pathogenesis and risk factors and clinical evolution of type 1 diabetes 3. Discuss the epidemiology , pathogenesis and risk factors economic impact and clinical evolution of type 2 diabetes 4. Describe and discuss the genetic background and the influence of the environment on diabetes | Lecture | | |
| IM11.5 IM11.6 | Complications of diabetes | 1. Describe and discuss the pathogenesis and temporal evolution of microvascular and macrovascular complications of diabetes 2. Describe and discuss the pathogenesis and precipitating factors, recognition and management of diabetic emergencies | Lecture | | |
| IM11.7,11.8 | History and examination of a patient with diabetes | 1. Elicit document and present a medical history that will differentiate the aetiologies of diabetes including risk factors, precipitating factors, lifestyle, | Bedside clinic | History station in OSCE Examination station in OSCE (| |

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| | | <p>nutritional history, family history, medication history, co-morbidities and target organ disease</p> <p>2. 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)</p> | | GPE, foot examination, checking for DPN) | |
| IM 11.12,11.13 | Bedside investigations in a patient with diabetes | <p>1.Perform and interpret a capillary blood glucose test</p> <p>2. Perform and interpret a urinary ketone estimation with dipstick</p> | <p>Small group discussion</p> <p>Clerkship – learner doctor</p> | Skill assessment | Pathology, Biochemistry |
| IM11.11,11.16,11.17 11.18, 11.22 | Management of diabetes | <p>1. Order and interpret laboratory tests to diagnose diabetes and its complications</p> <p>2.Discuss and describe the pharmacologic therapies for diabetes their indications, contraindications, adverse reactions and interactions</p> | Lecture followed by small group discussion | Short essay | Pharmacology |
| | | <p>3.Outline a therapeutic approach to therapy of T2Diabetes based on presentation, severity and complications in a cost-effective manner</p> <p>4. 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</p> <p>4.Enumerate the causes of hypoglycemia and describe the</p> | | MEQ | |

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| | | counter hormone response and the initial approach and treatment | | | |
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| Number | COMPETENCY The student should be able to | | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
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| IM11.19,11.20, 11.21 | Education and counselling of patient with diabetes | 1.Demonstrate and counsel patients on the correct technique to administer insulin 2.Demonstrate to and counsel patients on the correct technique of self-monitoring of blood glucoses 3.Recognise the importance of patient preference while selecting therapy for diabetes | Small group discussion Clerkship – learner doctor | OSCE – communication station | Pharmacology |
| IM12.1,12.2,12.3,12.4,12.12,12.13, 12.14, 12.15 | Etiopathogenesis, diagnosis and management of thyroid disorders | <ol style="list-style-type: none"> 1. Discuss the etiopathogenesis if hypothyroidism and hyperthyroidism 2. Describe and discuss the physiology of the hypothalamopituitary - thyroid axis, principles of thyroid function testing 3. Describe and discuss the principles of radio iodine uptake in the diagnosis of thyroid disorders 4. Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs 5. Discuss iodization programs of GOI 6. Write and communicate to the patient appropriately a prescription for thyroxine based on age, sex, and clinical and biochemical status | Lecture | Essay question, short essay | Pathology, Physiology |

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| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
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| IM,12.6 12.7,12.8, | History, examination and bedside diagnosis of thyroid disorders | 1.Elicit document and present an appropriate history that will establish the diagnosis cause of thyroid dysfunction and its severity 2. Perform and demonstrate examination of thyroid, including 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 | Bedside clinic | OSCE Short case | |
| | | 3.Generate a differential diagnosis based on the clinical presentation and prioritize it based on the most likely diagnosis | | | |
| IM12.9,12.10, 12.11, | | 1.Order and interpret diagnostic testing for thyroid disease 2. Identify atrial fibrillation, pericardial effusion and bradycardia 3.Interpret TFT | Small group discussion | Short essay question Modified essay question | |
| | Etiopathogenesis, diagnosis and management of Cushing's syndrome | <ol style="list-style-type: none"> 1. Discuss the etiopathogenesis of Cushing's syndrome 2. Describe the clinical features of Cushing's syndrome 3. Describe the diagnosis and management of Cushing's syndrome | Lecture | | |

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| | Etiopathogenesis, diagnosis and management of Addison's disease | <ol style="list-style-type: none">1. Discuss the etiopathogenesis of Addison's disease2. Describe the clinical features of Addison's disease3. Describe the diagnosis and management of Addison's disease | Lecture | | |
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| | Competency | SLOs | TL method | Assessment | Integration |
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| IM13.1 IM13.2 IM13.3 IM13.4 | Introduction to cancer | 1. Describe clinical epidemiology , inherited & modifiable risk factors for common malignancies in India 2. Describe the genetic basis of selected cancers 3. Describe the relationship between infection and cancers 4. Describe the natural history, presentation, course, complications and cause of death for common cancers | Lecture | Short note | Pathology, Biochemistry |
| IM13.5 IM13.6 IM13.16 IM13.17 IM13.18 IM13.19 | Palliative care & pain relief | 1. Describe common issues encountered in patients at the end of life and principles of management 2. distinguish between curative and palliative care in patients with cancer 3. Demonstrate an understanding of needs and preferences of patients when choosing curative and palliative therapy 4. Discuss indications, use, side effects of narcotics in pain alleviation in patients with cancer 5. Discuss ethical & medico legal issues involved in end-of-life care 6. Describe therapies used in alleviating suffering in patients at the end of life | Lecture | Short note/ Viva voce | |
| IM13.7 IM13.8 IM13.10 | History & examination in a case of cancer | 1. Elicit history that will help establish aetiology of cancer 2. Perform physical examination | Small group discussion Bedside clinic | Skill assessment/ Short case | |

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| | | including general and local examination to identify diagnosis, extent of spread and complications of cancer 3.Generate a differential diagnosis based on the presenting symptoms and clinical features | | | |
| IM13.9 | | Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and pap smear | Skill lab | Skill assessment/ Short case | Human Anatomy |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|---|---|---|----------------------------|------------------------------|----------------------|
| IM13.11 IM13.12 IM13.13 IM13.14 IM13.15 | Investigation & management in cancer | 1. Order and interpret diagnostic testing based on clinical diagnosis including CBC and stool occult blood and prostate specific antigen 2.Describe indications and interpret results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers 3.Describe and assess pain and suffering objectively in a patient with cancer 4.Describe the indications for surgery, radiation and chemotherapy for common malignancies 5.Describe the need, tests involved, their utility in the prevention of common malignancies | Small group discussion | Short note/ Viva voce | Radiodiagnosis |

| | Competency | SLOs | TL methods | Assessment | Integration |
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| IM14.1 IM14.2 IM14.3 IM14.5 | Overview | Define and measure obesity as it relates to the Indian population Describe and discuss the aetiology of obesity including modifiable and non-modifiable risk factors and secondary causes Describe and discuss the monogenic forms of obesity Describe and discuss the natural history of obesity and its complications | Lecture | Written/viva voce | |
| IM14.6 IM14.7 IM14.8 | Examination | 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 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 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 | Small group discussion Bedside clinic | Short case | |
| IM14.9 IM14.10 | Investigation of obesity | Order and interpret diagnostic tests based on the clinical diagnosis including blood glucose, lipids, thyroid function tests etc. 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 | Lecture | Written/viva voce | |

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| IM14.11 IM14.12 | Counselling & education | Communicate and counsel patient on behavioural, dietary and lifestyle modifications Demonstrate an understanding of patient's inability to adhere to lifestyle instructions and counsel them in a non-judgmental way | Clerkship Case based discussion | Documentation in logbook | |
| IM14.13 IM14.14 IM14.15 | Management of obesity | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for obesity Describe and enumerate the indications and side effects of bariatric surgery Describe and enumerate and educate patients, health care workers and the public on measures to prevent obesity and promote a healthy lifestyle | Lecture | Written/viva voce | |

| | Competency | SLOs | TL methods | Assessment | Integration |
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| IM15.1 IM15.2 | GI bleed | 1. Discuss the aetiology of upper and lower GI bleeding 2. Discuss the evaluation & stabilization of patient who presents with GI bleed | Lecture | Short essay | Pathology |
| IM15.3 | | Discuss the physiologic effects of acute blood and volume loss | SDL – pre reading | Viva voce | Pathology, Physiology |
| IM15.4 IM15.5 IM15.6 IM15.8 | Examination of patient with GI bleed | 1. Elicit history to identify source of GI bleed, amount of bleed & hemodynamic compromise 2. Perform physical examination including general examination, volume assessment and abdominal examination 3. Distinguish between upper & lower GI bleed 4. Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritize based on the most likely diagnosis | Small group discussion Bedside clinic | Long case | |
| IM15.7 | | Demonstrate the correct technique to perform an anal and rectal examination in a mannequin or equivalent | DOAP session | Skill assessment | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|---|---|--|-------------------------------|---------------------------------|----------------------|
| IM15.9 IM15.10 IM15.11 IM15.12 IM15.14 IM15.16 IM15.17 IM15.15 | Investigation & management of GI bleed | <p>Choose and interpret diagnostic tests : CBC, PT and PTT, stool occult blood, LFT H.pylori test.</p> <p>Enumerate the indications for endoscopy, colonoscopy</p> <p>Develop treatment plan including fluid resuscitation, blood and blood component transfusion and arresting bleed</p> <p>Enumerate indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion</p> <p>Discuss pharmacotherapy of acute GI bleed</p> <p>Enumerate the indications for endoscopic interventions and Surgery</p> <p>Determine appropriate level of specialist consultation</p> <p>Describe pharmacotherapy of acid peptic disease including Helicobacter pylori</p> | Case based discussion | Modified essay Question | |

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| IM15.13 | Observe cross matching and blood / blood component transfusion | | Small group discussion Clerkship | Documentation in logbook | Pathology |
| IM15.18 | Counsel the family and patient in an empathetic non-judgmental manner on the diagnosis and therapeutic options | | Small group discussion Clerkship | Documentation in logbook | |
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| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
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| IM16.3 16.6 16.12 16.13 16.14 | Diarrhoea | <ol style="list-style-type: none"> 1. Describe and discuss the chronic effects of diarrhoea including malabsorption 2. Distinguish between diarrhoea and dysentery based on clinical features 3. Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging and biopsy in the diagnosis of chronic diarrhoea 4. Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for parasitic causes of diarrhoea 5. Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for bacterial and viral diarrhoea | Lecture | Short note | |
| IM16.4 16.5 16.7 16.8 | History, examination and diagnosis in a case of diarrhoea | <ol style="list-style-type: none"> 1. Elicit and document and present an appropriate history that includes the natural history, dietary history, travel , sexual history and other concomitant illnesses 2. Perform, document and demonstrate a physical examination based on the history that includes GPE & abdomen exam 3. Generate a differential diagnosis based on the presenting symptoms and clinical features 4. Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, and stool examination | Bedside clinic | Short case OSCE history station | Microbiology, Pathology |

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| IM16.9 16.10 16.11 | Investigations in diarrhoea | Identify common parasitic causes of diarrhoea under the microscope in a stool specimen Identify vibrio cholera in a hanging drop specimen Enumerate the indications for stool cultures and blood cultures in patients with acute diarrhoea | DOAP session (1 hour) | Skill assessment | Microbiology |
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| Number | COMPETENCY The student should be able to | | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
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| IM16.15 16.16 16.17 | IBD | Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, and stool examination Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy including immunotherapy Describe and enumerate the indications for surgery in inflammatory bowel disease | Lecture followed by case-based discussion | Short note | Pathology |

| | Competency | SLOs | TL methods | Assessment | |
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| IM17.1 IM17.3 IM17.10 | Headache - introduction | 1. Define & classify headache & describe clinical features of various types of headache 2. Classify migraine and describe the distinguishing features between classical and non-classical forms of migraine 3. Enumerate indications for emergency care, admission and | Lecture | Short essay Viva voce | |

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| | | immediate supportive care in patients with headache | | | |
| IM17.11 IM17.12 | Vascular headache | 1.Describe indications, pharmacology, dose, side effects of abortive therapy in migraine 2.Describe the indications, pharmacology, dose, side effects of prophylactic therapy in migraine | Lecture | Short essay | |
| IM17.2 IM17.4 IM17.5 IM17.6 | History & examination in headache case | 1.Elicit history including aura, precipitating aggravating and relieving factors, associated symptoms to identify the cause 2.Perform neurologic examination & look for signs of raised ICT 3. Generate differential diagnosis based on clinical features, & prioritize the diagnosis based on the presentation 4.Choose & interpret diagnostic testing based on clinical diagnosis including imaging | Small group discussion Bedside clinic | History station in OSCE | |
| 17.9 IM17.7 IM17.13 | Meningitis | 1.Etiopathogenesis & clinical features of meningitis 2. describe the findings in the CSF in patients with meningitis 3.Describe the pharmacology, dose, adverse reactions and regimens of drugs used in the treatment of bacterial, tubercular and viral meningitis | Lecture | Short essay Viva voce | |

| Number | COMPETENCY The student should be able to | | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
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| IM17.8 | Lumbar puncture | Demonstrate in a mannequin or equivalent the correct technique for performing a lumbar puncture | Skill lab | Skill assessment | Microbiology, Pathology |
| IM17.9 | CSF analysis | Interpret the CSF findings when presented with various parameters of CSF fluid analysis | Case based discussion | Problem based short essay question | Microbiology, Pathology |
| IM17.14 | Counselling | Counsel patients with migraine and tension headache on lifestyle changes and need for prophylactic therapy | Small group discussion Clerkship | Documentation in logbook | Pharmacology |
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| | Competency | SLOs | | | |
| IM18.1 | Neuroanatomy | Describe the functional and the vascular anatomy of the brain | Lecture | Short answer Diagram | Human Anatomy |
| IM18.2 | Cerebrovascular accident | Classify cerebrovascular accidents & describe aetiology, predisposing risk factors & pathogenesis of hemorrhagic and non-hemorrhagic stroke | Lecture | SEQ | Pathology |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
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| IM18.3 IM18.4 IM18.5 IM18.6 IM18.7 IM18.8 | History & examination of a case of stroke | 1.Elicit history including onset, progression, precipitating and aggravating relieving factors, associated symptoms that help identify the cause of stroke 2.Identify the nature of stroke based on the temporal evolution and resolution of the illness 3. Perform physical examination including general and a detailed neurologic examination as appropriate, based on the history 4.Distinguish lesion based on upper vs lower motor neuron, side, site and most probable nature of the lesion 5.Describe clinical features and distinguish, based on clinical examination, the various disorders of speech 6.Describe and distinguish, based on the clinical presentation, the types of bladder dysfunction seen in CNS disease | Small group discussion Bedside clinic | 1. Long case 2.Physical examination station in OSCE | |
| IM18.9 IM18.10 IM18.11 IM18.12 IM18.13 IM18.14 IM18.15 | Investigations & treatment of stroke | 1.Choose and interpret appropriate diagnostic & imaging tests to delineate site & underlying cause of lesion 2. Choose and interpret appropriate diagnostic testing in young patients with a cerebrovascular accident (CVA) 3. Describe the initial supportive management of a patient presenting with a cerebrovascular accident (CVA) 4. Enumerate the indications for and describe acute therapy of non-hemorrhagic stroke including the use of | Lecture | 1. data interpretation station in osce 2. Short answer | Radiodiagnosis |

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| | | thrombolytic agents 5.Enumerate the indications for and describe the role of anti-platelet agents in non-hemorrhagic stroke 6.Describe the initial management of a hemorrhagic stroke 7. Enumerate the indications for surgery in a hemorrhagic stroke | | | |
| IM18.16 | Rehabilitation of stroke | observe the multidisciplinary rehabilitation of patients with a CVA | DOAP session | | |
| IM18.17 | Counselling | Counsel patient and family about the diagnosis and therapy in an empathetic manner | Small group discussion Clerkship | Documentation in logbook | |

| | Competency | SLOs | | | |
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| IM19.1 | Neuroanatomy basal ganglia | Describe the functional anatomy of the locomotor system of the brain | Lecture | Written/ Viva voce | Human Anatomy, Physiology |
| IM19.2 | Movement disorders and Parkinson's disease | 3. Classify movement disorders based on distribution, rhythm, repetition, exacerbating and relieving factors 4. Describe the clinical features of Parkinson's disease | Lecture | Written/ Viva voce | |
| IM19.3 IM19.4 IM19.5 IM19.6 | History & examination of movement | 1.Elicit history including onset, progression precipitating and aggravating relieving factors, associated symptoms to identify cause of | Small group discussion Bedside clinic | Short case Examination station in OSCE | |

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| | | movement disorders disorder 3.Perform physical examination that includes a general and detailed neurologic examination 4.Generate differential diagnosis & prioritize based on history & physical examination 5.Reach clinical diagnosis of location, nature and cause of lesion based on clinical presentation | | | |
| IM19.7 IM19.8 IM19.9 | Investigation & management of movement disorders | Choose and interpret diagnostic and imaging tests in the diagnosis of movement disorders Discuss pharmacology, dose, side effects and interactions used in the drug therapy of Parkinson's syndrome Enumerate the indications for use of surgery and botulinum toxin in the treatment of movement disorders | Lecture | Skill assessment/ Written/ Viva voce | Radiodiagnosis |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|--------------------------------------|---|--|----------------------------|------------------------------|------------------------------------|
| IM20.1 IM20.3 IM20.6 IM20.7 | Snake bite | 1.Enumerate local poisonous snakes & describe the distinguishing marks of each 2. Choose & interpret appropriate diagnostic testing in patients with snake bite 3.Describe initial approach to stabilization of patient with snake bite 4. Describe pharmacology, dose, adverse reactions, hypersensitivity | Lecture | Essay question Viva voce | Forensic Medicine, Pharmacology |

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| | | reactions of anti-snake venom | | | |
| IM20.2 | Patient Education | Demonstrate and educate (to other health care workers / patients) the correct initial management of patient with a snake bite in the field | DOAP session Role play for patient education | Viva voce | Forensic Medicine |
| IM20.4 IM20.5 | Examination of snake bite case | 1. Elicit history including circumstance, time, kind of snake, evolution of symptoms in a patient with snake bite 2. Perform general, local, appropriate cardiac and neurologic examination in case of snake bite | Small group discussion Bedside clinic | OSCE examination station on simulated patient | Forensic Medicine |
| IM20.8 | | Describe the diagnosis, initial approach, stabilization and therapy of scorpion envenomation | Lecture | Written/ Viva voce | Pharmacology |
| IM20.9 | | Describe the diagnosis initial approach stabilization and therapy of bee sting allergy | SDL | Written/ Viva voce | Pharmacology |
| | | Clinical features, stabilization , management of attempted hanging | Lecture | | |
| | | Clinical features, stabilization , management of attempted drowning | Lecture | | |
| | | Heat stroke | SDL | | |

| Number | COMPETENCY The student should be able to | | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|------------------|---|---|-------------------------------|---------------------------------|---------------------------------------|
| IM21.1 IM21.2 | Poisoning | 1.Describe the initial approach to the stabilization of the patient who presents with poisoning 2.describe toxicology, clinical features and management of common plant poisons | Lecture | Viva voce Structured essay | |
| IM21.3 IM21.4 | | 1.describe toxicology, clinical features and management of common corrosive poisons 2.describe toxicology, clinical features and management of patients admitted with common drug overdose | Lecture | Short answer | |
| | Hepatotoxic poisons | 1.Describe toxicology, clinical features, management in a patient admitted with paracetamol/rodenticide poisoning 2.Discuss the role of liver transplant in. these cases | Lecture | Short essay | |
| IM21.8 | | 1.describe the precautions to be taken in a patient with suspected suicidal ideation / gesture | Small group discussion | viva | |
| IM21.5 | | Observe and describe the functions and role of a poison center in suspected poisoning | DOAP session | document in log book | Forensic Medicine, Pharmacology |

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| 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 | SDL – revision & pre reading | Viva voce | Forensic Medicine, Pharmacology |
| IM21.7 | Counselling | Counsel family members of a patient with suspected poisoning about the clinical and medico legal aspects with empathy | Small group discussion Clerkship | Communication station in osce | Forensic Medicine, Pharmacology |
| | Competency | SLOs | TL method | Assessment method | Integration |
| IM22.1 IM22.2 IM22.3 | Hypercalcemia | Enumerate causes of hypercalcemia ; distinguish features of PTH vs non PTH mediated hypercalcemia Describe etiology, clinical features, diagnosis and approach to primary hyperparathyroidism Describe the approach to the management of hypercalcemia | Lecture | Short essay | Pathology, Physiology |
| | Hypocalcemia | Clinical features, diagnosis and treatment of hypocalcemia | Lecture | Short essay | |
| IM22.4 | | Enumerate the components and describe the genetic basis of the multiple endocrine neoplasia syndrome | SDL | Viva voce | Pathology |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|---|---|---|--------------------------------|---------------------------------------|----------------------|
| IM22.5 IM22.6 | Abnormalities of sodium metabolism | Enumerate the causes , describe clinical features & lab and approach to diagnosis and management of hyponatremia Enumerate the causes , describe clinical features & lab and approach to diagnosis and management of hypernatremia | Lecture | Short answer Viva voce | |
| IM22.7 IM22.8 | Abnormalities of potassium metabolism | Enumerate the causes , describe clinical features & lab and approach to diagnosis and management of hypokalemia Enumerate the causes , describe clinical features & lab and approach to diagnosis and management of hyperkalemia | Lecture | | |
| IM22.9 IM22.10 IM22.11 IM22.12 | Acidosis & alkalosis | 1. Discuss the clinical and laboratory features of metabolic acidosis and alkalosis 2. Discuss the clinical and laboratory features of respiratory acidosis and alkalosis | Lecture | Short essay MCQs | Physiology |
| IM22.13 | | Identify the underlying acid base disorder based on ABG report and clinical situation | Assignments Problem solving | Problem based short essay question | Physiology |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|--|---|---|-------------------------------|---------------------------------|-----------------------------|
| IM23.1 IM23.2 | Nutrition in illness | Discuss and describe the methods of nutritional assessment in an adult and calculation of caloric requirements during illnesses Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital | Lecture | Short answer | |
| IM23.3 | Vitamins | Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies | Lecture | Short answer | Physiology, Biochemistry |
| IM23.4 | Nutrition in the critically ill | Enumerate the indications for enteral and parenteral nutrition in critically ill patients | Lecture | Short answer | Physiology, Biochemistry |
| IM23.5 | | Counsel and communicate to patients in a simulated environment with illness on an appropriate balanced diet | DOAP session Clerkship | Documentation in logbook | |
| | Competency | SLOs | TL methods | Assessment | Integration |
| IM24.17 IM24.1 IM24.4 IM24.8 IM24.9 IM24.10 | Common illnesses in the elderly | 1.Describe the impact of demographic changes in ageing on the population 2.Describe the epidemiology, pathogenesis, clinical evolution, presentation and course of common diseases in the elderly: vascular events, osteoporosis, CVA, COPD | Lecture | Long essay | |
| IM24.2 | Examination of the elderly | Perform multidimensional geriatric assessment that includes medical, psycho-social and functional | Small group discussion | Short case | Psychiatry |

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| | | components | Bedside clinic | | |
| IM24.3 IM24.6 IM24.22 IM24.5 IM24.7 | Delirium , dementia and depression | Discuss etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of acute confusional states, nutritional disorders dementia in the elderly depression in the elderly personality changes in the elderly | Lecture | Long essay | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|---|---|---|---|------------------------------|----------------------|
| IM24.11 IM24.12 IM24.13 IM24.14 IM24.15 | Multidisciplinary care of the elderly | Describe etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of elderly with : degenerative joint disease, falls, fractures,, visual & hearing loss Describe and discuss the etiopathogenesis , clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery | Multidisciplinary panel discussion Team teaching | Short answer | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
|--|---|--|-------------------------------|---------------------------------|----------------------|
| IM24.16 IM24.19 IM24.20 IM24.21 | Physical & mental rehabilitation of elderly | <p>1. discuss principles of physical & social rehabilitation, functional assessment, role of physiotherapy and occupational therapy in the management of disability in the elderly</p> <p>2. Enumerate & describe social problems in the elderly including isolation, abuse, change in family structure and their impact on health.</p> <p>3.Enumerate and describe social interventions in the care of elderly including domiciliary services, rehabilitation facilities, old age homes and state interventions</p> <p>4.Enumerate and describe ethical issues in the care of the elderly</p> | Case based discussion | Written/ Viva voce | |

| Number | COMPETENCY The student should be able to | SLOs | Suggested Learning methods | Suggested Assessment methods | Vertical Integration |
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| IM25.4 | Leptospirosis | <ol style="list-style-type: none"> 1. Epidemiology & Etiopathogenesis of leptospirosis 2. Clinical features of leptospirosis 3. Diagnosis and management of leptospirosis | lecture | SEQ | |
| IM25.5 | Enteric fever | <ol style="list-style-type: none"> 1. Epidemiology & Etiopathogenesis of enteric fever 2. Clinical features of enteric fever 3. Diagnosis and management of enteric fever | lecture | Short answer | |
| | Tuberculosis | <ol style="list-style-type: none"> 1. Epidemiology & Etiopathogenesis of Tuberculosis 2. Clinical features of Tuberculosis 3. Diagnosis and management of Tuberculosis | lecture | | |

Pandemic Module

| | Competency | Hours | TL method |
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| 4.1 | Care of patients | 6 | Small group discussion |
| 4.2 | Emergency procedures | 8 | Small group discussion |
| 4.3 | Death related management | 2 | Small group discussion |
| 4.4 | Communications & media management | 4 | Small group discussion |
| 4.5 | Intensive care | 4 | Small group discussion |
| 4.6 | Palliative care | 4 | |

Competencies to be covered in AETCOM sessions

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| | Competency |
| IM26.1 | Enumerate and describe professional qualities and roles of a physician |
| IM27.1 | Describe and discuss the commitment to lifelong learning as an important part of physician growth |
| IM26.3 | Describe and discuss the role of non-maleficence as a guiding principle in patient care |
| IM26.4 | Describe and discuss the role of autonomy and shared responsibility as a guiding principle in patient care |
| IM26.5 | Describe and discuss the role of beneficence of a guiding principle in patient care |
| IM26.6 | Describe and discuss the role of a physician in health care system |
| IM26.7 | Describe and discuss the role of justice as a guiding principle in patient care |
| IM26.8 | Identify discuss medicolegal, socioeconomic and ethical issues as it pertains to organ donation |
| 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 |
| IM26.10 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care |

| Numb er | COMPETENCY The student should be able to |
|-------------|--|
| 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 |
| 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 |
| 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 |
| IM26. 14 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to research in human subjects |
| IM26. 15 | Identify, discuss and defend, medicolegal, socio-cultural and ethical issues as they pertain to consent for surgical procedures |
| IM26. 16 | Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues as it pertains to the physician patient relationship (including fiduciary duty) |
| IM26. 17 | Identify, discuss physician's role and responsibility to society and the community that she/ he serves |
| IM26. 18 | Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues in physician-industry relationships |
| IM26. 19 | Demonstrate ability to work in a team of peers and superiors |
| IM26. 20 | Demonstrate ability to communicate to patients in a patient, respectful, non-threatening, non-judgmental and empathetic manner |
| IM26. 21 | Demonstrate respect to patient privacy |

| Numb er | COMPETENCY The student should be able to |
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| IM26. 22 | Demonstrate ability to maintain confidentiality in patient care |
| IM26. 23 | Demonstrate a commitment to continued learning |
| IM26. 24 | Demonstrate respect in relationship with patients, fellow team members, superiors and other health care workers |
| IM26. 25 | Demonstrate responsibility and work ethics while working in the health care team |
| IM26. 26 | Demonstrate ability to maintain required documentation in health care (including correct use of medical records) |
| IM26. 27 | Demonstrate personal grooming that is adequate and appropriate for health care responsibilities |
| IM26. 28 | Demonstrate adequate knowledge and use of information technology that permits appropriate patient care and continued learning |
| IM26. 29 | Communicate diagnostic and therapeutic options to patient and family in a simulated environment |
| IM26. 30 | Communicate care options to patient and family with a terminal illness in a simulated environment |
| IM26. 31 | Demonstrate awareness of limitations and seeks help and consultations appropriately |
| IM26. 32 | Demonstrate appropriate respect to colleagues in the profession |
| IM26. 33 | Demonstrate an understanding of the implications and the appropriate procedures and response to be followed in the event of medical errors |
| IM26. 34 | Identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts |

| Number | COMPETENCY The student should be able to |
|---------|---|
| IM26.35 | Demonstrate empathy in patient encounters |
| IM26.36 | Demonstrate ability to balance personal and professional priorities |
| IM26.37 | Demonstrate ability to manage time appropriately |
| IM26.38 | Demonstrate ability to form and function in appropriate professional networks |
| IM26.39 | Demonstrate ability to pursue and seek career advancement |
| IM26.40 | Demonstrate ability to follow risk management and medical error reduction practices where appropriate |
| IM26.41 | Demonstrate ability to work in a mentoring relationship with junior colleagues |

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| IM26. 42 | Demonstrate commitment to learning and scholarship |
| IM26. 43 | Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as they pertain to in vitro fertilization donor insemination and surrogate motherhood |
| IM26. 44 | Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to medical negligence |
| IM26. 46 | Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues in dealing with impaired physicians |
| 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 |
| IM26. 48 | Demonstrate altruism |
| IM26. 49 | Administer informed consent and appropriately address patient queries to a patient being enrolled in a research protocol in a simulated environment |

Respiratory Medicine – Knowledge Competencies

| Topic - Tuberculosis | | | | | |
|----------------------|--|---------------------------------|----------------------|----------------------|--|
| | Competency | Teaching-learning method | Formative assessment | Summative assessment | Integration |
| CT1.1 | Describe and discuss the epidemiology of tuberculosis and its impact on the work, life and economy of India | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | 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) | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | 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 | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Microbiology |
| CT1.4 | Describe the epidemiology, the predisposing factors and microbial and therapeutic factors that determine resistance to drugs | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Community Medicine, Microbiology, Pharmacology |
| CT1.12 | Enumerate the indications for tests including: serology, special cultures and polymerase chain reaction and sensitivity testing | Small group discussion, Lecture | MCQs/Drills | Essay/SAQ/MCQs | Microbiology |
| CT1.13 | Describe and discuss the origin, indications, technique of administration, efficacy and complications of the BCG vaccine | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Microbiology |
| CT1.14 | Describe and discuss the pharmacology of various anti-tuberculous agents, their indications, contraindications, interactions | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Pharmacology, Microbiology |

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| | and adverse reactions | | | | |
| CT1.16 | Describe the appropriate precautions, screening, testing and indications for chemoprophylaxis for contacts and exposed healthcare workers | Bedside clinic, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Community Medicine |
| Topic – Obstructive airway disease | | | | | |
| CT2.1 | Define and classify obstructive airway disease | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Physiology |
| CT2.2 | Describe and discuss the epidemiology, risk factors and evolution of obstructive airway disease | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Physiology |
| CT2.3 | Enumerate and describe the causes of acute episodes in patients with obstructive airway disease | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Physiology |
| CT2.4 | Describe and discuss the physiology and pathophysiology of hypoxia and hypercapnia | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Physiology |
| CT2.5 | Describe and discuss the genetics of alpha 1 antitrypsin deficiency in emphysema | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | |
| CT2.6 | Describe the role of the environment in the cause and exacerbation of obstructive airway disease | Lecture, Small group | MCQs/Drills | Essay/SAQ/MCQs | |

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|--------|--|------------------------------------|-------------|--------------------|------------|
| | | discussion | | | |
| CT2.7 | Describe and discuss allergic and non-allergic precipitants of obstructive airway disease | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/ MCQs | |
| CT2.16 | Discuss and describe therapies for OAD including bronchodilators, leukotriene inhibitors, mast cell stabilisers, theophylline, inhaled and systemic steroids, oxygen and immunotherapy | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/ MCQs | |
| CT2.17 | Describe and discuss the indications for vaccinations in OAD | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/ MCQs | |
| CT2.20 | Describe and discuss the principles and use of oxygen therapy in the hospital and at home | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/ MCQs | |
| CT2.25 | Discuss and describe the impact of OAD on the society and workplace | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/ MCQs | |
| CT2.26 | Discuss and describe preventive measures to reduce OAD in workplaces | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/ MCQs | |
| | Integration Topics | | | | |
| PH1.32 | Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of drugs used in bronchial asthma and COPD | Lecture, Small group | MCQs/Drills | Essay/SAQ/ MCQs | Physiology |

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|---------|--|--|--------------------------------------|----------------|-------------------|
| | | discussion | | | |
| PH1.33 | Describe the mechanism of action, types, doses, side effects, indications and contraindications of the drugs used in cough (antitussives, expectorants/ mucolytics) | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Pharmacology |
| PH1.44 | Describe the first line antitubercular drugs, their mechanisms of action, side effects and doses. | Lecture | MCQs/Drills | Essay/SAQ/MCQs | Pharmacology |
| PH1.45 | Describe the drugs used in MDR and XDR Tuberculosis | Lecture | MCQs/Drills | Essay/SAQ/MCQs | Pharmacology |
| IM24.10 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Internal medicine |
| PE28.19 | Describe the etio-pathogenesis, clinical features, diagnosis, management and prevention of asthma in children | Bedside clinics, Small group discussion, Lecture | Skill Assessment /Written/ Viva voce | | Paediatrics |
| PE34.1 | Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Paediatrics |
| PE34.2 | Discuss the various diagnostic tools for childhood tuberculosis | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Paediatrics |

**Respiratory
medicine –
Psychomotor
competencies**

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|---------|---|--|-------------|----------------|-------------|
| PE34.3 | Discuss the various regimens for management of Tuberculosis as per National Guidelines | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Paediatrics |
| PE34.4 | Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program | Lecture, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Paediatrics |
| PE34.10 | Discuss the various samples for demonstrating the organism eg Gastric Aspirate, Sputum, CSF, FNAC | Bed side clinics, Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Paediatrics |
| PE34.12 | Enumerate the indications and discuss the limitations of methods of culturing M. Tuberculosis | Small group discussion | MCQs/Drills | Essay/SAQ/MCQs | Paediatrics |

Topic – Tuberculosis

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|-------|--|-------------------------------|--|------------------------|--|
| CT1.5 | Elicit, document and present an appropriate medical history that includes risk factor, contacts, symptoms including cough and fever CNS and other manifestations | 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 | 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 | DOAP session | | Maintenance of logbook | |

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| CT1.10 | Perform and interpret an AFB stain | DOAP session | | | |
| CT1.11 | Assist in the performance, outline the correct tests that require to be performed and interpret the results of a pleural fluid aspiration | DOAP session | | | |
| 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) | Bedside clinic, Small group discussion, Lecture | | | |
| 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 | |
| CT1.8 | Generate a differential diagnosis based on the clinical history and evolution of the disease that prioritises the most likely diagnosis | Bedside clinic, Small group discussion | Bedside clinic/ Vivavoce | | |
| 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 | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.8 | Elicit document and present a medical history that will differentiate the aetiologies of obstructive airway disease, severity and precipitants | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| 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 | Bedside clinic, DOAP session | OSCE | Long case/short case | |

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| CT2.10 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.11 | Describe, discuss and interpret pulmonary function tests | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.12 | Perform and interpret peak expiratory flow rate | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.13 | Describe the appropriate diagnostic work up based on the presumed aetiology | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.14 | Enumerate the indications for and interpret the results of : pulse oximetry, ABG, Chest Radiograph | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.15 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.18 | Develop a therapeutic plan including use of bronchodilators and inhaled corticosteroids | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.19 | Develop a management plan for acute exacerbations including bronchodilators, systemic steroids, antimicrobial therapy | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| Integration topics | | | | | |
| PY6.8 | Demonstrate the correct technique to perform & interpret Spirometry | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| PE34.5 | Able to elicit, document and present history of contact with tuberculosis in every patient encounter | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| PE34.6 | Identify a BCG scar | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| PE34.7 | Interpret a Mantoux test | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| PE34.8 | Interpret a Chest Radiograph | Bedside clinic, DOAP session | OSCE | Long case/short case | |

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|---------|--|------------------------------|---------|----------------------|--|
| PE34.9 | Interpret blood tests in the context of laboratory evidence for tuberculosis | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| PE34.11 | Perform AFB staining | DOAP | Logbook | | |

Respiratory medicine – Communication competencies

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|---------|--|------------------------------|---------------|----------------------|--|
| CT1.18 | Educate health care workers on National Program of Tuberculosis and administering and monitoring the DOTS program | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT1.19 | Communicate with patients and family in an empathetic manner about the diagnosis, therapy | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.21 | Describe, discuss and counsel patients appropriately on smoking cessation | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.22 | Demonstrate and counsel patient on the correct use of inhalers | Bedside clinic, DOAP session | OSCE /logbook | Long case/short case | |
| CT2.23 | Communicate diagnosis, treatment plan and subsequent follow up plan to patients | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.24 | Recognise the impact of OAD on patient's quality of life, well being, work and family | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.27 | Demonstrate an understanding of patient's inability to change working, living and environmental factors that influence progression of airway disease | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| CT2.28 | Demonstrate an understanding for the difficulties faced by patients during smoking cessation | Bedside clinic, DOAP session | OSCE | Long case/short case | |
| PE28.20 | Counsel the child with asthma on the correct use of inhalers in a simulated environment | Bedside clinic, DOAP session | OSCE/ logbook | Long case/short case | |

List of certifiable competencies

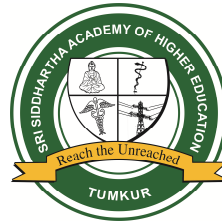
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|---------|---|-----------------------------|---------|--|
| CT2.12 | Perform and interpret peak expiratory flow rate | Bedside clinic, DOAPsession | Logbook | |
| PE34.11 | Perform AFB staining | DOAP | Logbook | |

Acknowledgements

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The respiratory medicine components of curriculum and logbook has been developed with Inputs from Dr Uma Devaraj

Sri Siddhartha Academy of Higher Education, Tumkur



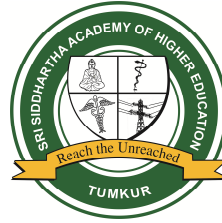
General Medicine Allied Subjects Curriculum

Including Psychiatry and Dermatology

as per

Competency-Based Medical Education Curriculum

Sri Siddhartha Academy of Higher Education, Tumkur



Psychiatry Curriculum

as per

Competency-Based Medical Education Curriculum

SSAHE Psychiatry Curriculum as per the new Competency Based Medical Education

Preamble

The NMC envisages that the Indian Medical Graduate, should function as the Physician of first contact in the community, to provide holistic health care to the evolving needs of the nation and the world. To fulfil this the IMG should be able to perform the following roles: a clinician, a communicator, a lifelong learner, a professional and a team leader.

Competency-based medical education (CBME) is an outcomes-based training model that has become the new standard of medical education internationally. This new curriculum is being implemented across the country and the first batch has been enrolled since the academic year 2019. The regulatory and accrediting body NMC had started the process by training faculty across the country in the key principles of CBME and developing key competencies for each speciality with the input from expert groups under each speciality.

Mental health is essential to overall health and the well-being of individuals and societies. Mental health affects the individual's ability to function, to be productive, to establish and maintain positive relationships, and to experience a state of well-being. This is the reason we say, "There is no health without mental health." Mental disorders, a highly prevalent group of non-communicable diseases, affect the lives of 1 out of 5 persons. Factors related to mental illness can interfere with the treatment of other illnesses and frequently co-occur with CVS, diabetes, cancer, and other non-communicable diseases, and communicable diseases like HIV and TB. Therefore, training undergraduate medical students in mental health is vital. Knowledge of Psychiatry, Mental health, and Behavioral Sciences equips the students to deal with various difficult and complex situations during medical practice. Additionally, it will help them to develop proper communication skills and to empathize with their patients and their suffering. Moreover, since psychiatric problems are common among patients seen in general practice (about 25%) and specialty clinics (about 15%), adequate training in Psychiatry during UG course makes the student a better doctor.

The Psychiatry undergraduate curriculum provides the IMG the requisite knowledge, essential skills and appropriate attitudes to be able to diagnose and treat common psychiatric disorders and also to be able to recognize serious conditions and refer appropriately.

The NMC, in the Graduate medical regulations 2019, has provided the list of competencies in Psychiatry, required for an IMG and these have been included in this Psychiatry curriculum document. The Specific learning objectives (SLO's) to achieve each competency has been listed along with the suggested Teaching-Learning methods and preferred assessment methods. The topics have been segregated under three heads: Lecture topic, integrated topics and clinical posting topics. A suggested scheme for teaching Clinical skills topics as posting one and posting two has been made.

Competency Based Medical Education
Suggested Lecture schedule plan (IIIrd MBBS, Part 1)

| No | Topic | Competencies | Time | T/L method | Assessment |
|----|-----------------------------|---|--------|----------------------------|-------------------|
| 1 | Doctor patient relationship | <ul style="list-style-type: none"> • Components of communication • breaking bad news • importance of confidentiality PS1.2 | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 2 | Mental health | <ul style="list-style-type: none"> • Stress, components and cause • time-management, study skills, balanced diet, sleep wake cycle PS2.1, PS2.2 | 1 hour | Lecture/ Small Group | Viva/written/MCQs |

| | | | | | |
|---|----------------------------|--|--------|-------------------------|-------------------|
| 3 | Mental health | <ul style="list-style-type: none"> • Components of memory, learning and emotions • Principles of personality development and motivation • Define and distinguish between normality and abnormality <p>PS2.3, PS2.4, PS2.5</p> | 1 hour | Lecture/small groups | Written/Viva/MCQs |
| 4 | Introduction to psychiatry | <ul style="list-style-type: none"> • Growth, history, development of psychiatry as specialty • Brain and behaviour <p>PS3.1</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |

| | | | | | |
|---|----------------------------|--|--------|----------------------------|-------------------|
| 5 | Introduction to psychiatry | <ul style="list-style-type: none"> • Signs and symptoms of common mental disorders • Biological, psychological and social factors and their interactions in causation of mental disorders • Distinguish psychotic and non-psychotic disorders <p>PS3.2, PS3.6, PS3.12</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 6 | Introduction to psychiatry | <ul style="list-style-type: none"> • Pharmacological basis and side-effects of drugs used in psychiatric disorders <p>PS3.10</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 7 | Substance Use disorders | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs • Conditions for specialist referral <p>PS4.1, PS4.4, PS4.6, PS4.7</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 8 | Psychotic disorders | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs • Conditions for specialist referral <p>PS5.1, PS5.3, PS5.5, PS5.6</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 9 | Depression | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs | 1 hour | Lecture/ Small Group | Viva/written/MCQs |

| | | | | | |
|----|-------------------|--|--------|----------------------------|-------------------|
| | | <ul style="list-style-type: none"> • Conditions for specialist referral <p>PS6.1, PS6.4, PS6.6, PS6.7</p> | | | |
| 10 | Bipolar disorders | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs • Conditions for specialist referral <p>PS7.1, PS7.4, PS7.6, PS7.7</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 11 | Assessment | | 1 hour | | |
| 12 | Anxiety disorders | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs • Conditions for specialist referral <p>PS8.1, PS8.4, PS8.6, PS8.7</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 13 | OCD | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-1-hour effects of drugs • Conditions for specialist referral <p>PS8.1, PS8.4, PS8.6, PS8.7</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |

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|----|---|---|--------|----------------------------|-------------------|
| 14 | Stress related disorders | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs • Conditions for specialist referral <p>PS9.1, PS9.4, PS9.6, PS9.7</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 15 | Personality disorders | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs • Conditions for specialist referral <p>PS11.1, PS11.4, PS11.6, PS11.7</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 16 | Psychosexual and Gender Identity disorders (Psychosexual disorders) | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs • Conditions for specialist referral <p>PS13.1, PS13.4, PS13.6, PS13.7</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 17 | Psychosexual and Gender Identity disorders (Gender Identity disorders) | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs • Conditions for specialist referral <p>PS13.1, PS13.4, PS13.6, PS13.7</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |

| | | | | | |
|----|--|--|--------|-------------------------|-------------------|
| 18 | Emotional & Behavioral problems in Child and Adolescence (ADHD, ODD, CD) | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs • Conditions for specialist referral <p>PS14.1, PS14.3, PS14.5, PS14.6</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 19 | Other specific childhood psychiatric disorders (enuresis) | <ul style="list-style-type: none"> • Magnitude & aetiology • Treatment • Pharmacological basis and side-effects of drugs • Conditions for specialist referral <p>PS14.1, PS14.3, PS14.5, PS14.6</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 20 | Psychiatric disorders in elderly | <ul style="list-style-type: none"> • Common psychiatric disorders including dementia, depression & psychosis • Magnitude & aetiology • Therapy in elderly • Conditions for specialist referral <p>PS16.1, PS16.2, PS16.3, PS16.5</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 21 | Psychiatric emergencies | <ul style="list-style-type: none"> • Describe recognition of psychiatric emergencies like suicide, deliberate self-harm and aggressive <p>PS17.1, PS17.2, PS17.3</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |

| | | | | | |
|----|---------------------|--|--------|----------------------------|-------------------|
| 22 | Therapeutics | <ul style="list-style-type: none"> Describe principles of psychosocial interventions in psychiatric illness including psychotherapy, rehabilitation and behavioural therapy <p>PS18.3</p> | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 23 | Assessment | <ul style="list-style-type: none"> Second assessment | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 24 | Review and Feedback | | | | |

Competency Based Medical Education Suggested
Integrated Lecture/Tutorials schedule plan

| No | Topic | Competencies | Posting & Integration | Time | T/L method | Assessment |
|----|-------------------------------------|--|--|--------|-------------------------|-------------------|
| 1 | Introduction to psychiatry | <ul style="list-style-type: none"> Enumerate, describe common psychiatric disorders, magnitude, aetiology and clinical features in patients with organic psychiatric disorders Essential investigations in patients with organic psychiatric disorders <p>PS3.7, PS3.8</p> | 3 rd year General Medicine | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 2 | Alcohol and substance use disorders | <ul style="list-style-type: none"> Magnitude and aetiology of alcohol use disorders Treatment of alcohol use disorders including pharmacotherapy and psychotherapy Pharmacological basis and side-effects of drugs in alcohol use disorders Appropriate conditions for specialist referrals in alcohol use disorders <p>PS4.1, PS4.4, PS4.6, PS4.7</p> | 3 rd year General Medicine | 1 hour | Lecture/ Small Group | Viva/written/MCQs |

| | | | | | | |
|---|---|--|--|--------|-------------------------|-------------------|
| 3 | Psychosomatic disorders | <ul style="list-style-type: none"> • Magnitude and aetiology of psychosomatic disorders • Treatment of psychosomatic disorders • Pharmacological basis of treatment and side-effects of psychosomatic disorders • Appropriate conditions for specialist referral <p>PS12.1, PS12.4, PS12.6, PS12.7</p> | 3 rd year General Medicine | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 4 | Psychosomatic disorders | <ul style="list-style-type: none"> • Magnitude and aetiology of psychosomatic disorders • Treatment of psychosomatic disorders • Pharmacological basis of treatment and side-effects of psychosomatic disorders • Appropriate conditions for specialist referral <p>PS12.1, PS12.4, PS12.6, PS12.7</p> | 3 rd year Dermatology | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 5 | Mental retardation, scholastic backwardness, neurodevelopmental disorders, autism | <ul style="list-style-type: none"> • Magnitude & aetiology • Intelligence quotient and assessment | 3 rd year Pediatrics | 1 hour | Lecture/ Small Group | Viva/written/MCQs |

| | | | | | | |
|---|---------------|---|--|--------|-------------------------|-------------------|
| | | <ul style="list-style-type: none"> • Psychosocial treatments and interventions <p>PS15.1, PS15.3, PS15.4</p> | | | | |
| 6 | Miscellaneous | <ul style="list-style-type: none"> • Relevance and role of community psychiatry • Objectives, strategies and contents of National Mental Health Program • Enumerate and describe salient features of MHCA 2017 • Describe the concept principles of preventive mental health promotion (positive mental health); and community education • Enumerate and describe the identifying features and the principles of participatory management of mental illness occurring during and after disasters <p>PS19.1, PS19.2, PS19.4, PS19.5, PS19.6</p> | 3 rd year Community psychiatry | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 7 | Miscellaneous | <ul style="list-style-type: none"> • Describe and discuss basic legal and ethical issues in psychiatry <p>PS19.3, PS19.4</p> | 3 rd year Forensic | 1 hour | Lecture/ Small Group | Viva/written/MCQs |

| | | | | | | |
|----|------------------------------------|--|----------------------|--------|----------------------------|-------------------|
| 8 | Risk assessment for suicide | <ul style="list-style-type: none"> Enumerate and describe recognition of suicide risk in individuals PS17.1 | 3 rd year | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 9 | ECT and other modalities like RTMS | <ul style="list-style-type: none"> Indications of modified ECT Indications of other modalities PS 18.2 | 3 rd year | 1 hour | Lecture/ Small Group | Viva/written/MCQs |
| 10 | Psychological assessments | | 3 rd year | 1 hour | Lecture/ Small Group | Viva/written/MCQs |

PSYCHIATRY CLINICAL POSTINGS

POSTING 1- II MBBS

| No | Topic | Competencies | SLOs | Domain /Level | T/L method | Assessment |
|----|-----------------------------|---|---|--|--|--|
| 1 | Doctor patient relationship | <p>Developing rapport & empathy (PS1.1, PS3.4)</p> <p>Importance of confidentiality (PS1.4)</p> | <p>Define and describe the meaning of terms rapport and empathy. Demonstrate comfort with communicating with patient, use modes of communication enabling patient to feel safe and comfortable to participate in a dialogue.</p> <p>Enumerate the ethical principles of confidentiality including safeguarding of information, and consent to disclose information. Enumerate conditions under which confidentiality can be breached.</p> | <p>K/K H S/S H</p> <p>K/K H</p> <p>K/K H</p> | <p>Small group discussion</p> <p>Small group discussion, guided observation of consultants, role-plays, demonstrations</p> <p>Small group discussion</p> <p>Small group discussion</p> | <p>MCQ MCQ, OSCE</p> <p>MC</p> <p>Q</p> <p>MC</p> <p>Q</p> |

| | | | | | | |
|---|-----------------------------------|--|--|--------------|--|--|
| 2 | Breaking bad news | Breaking bad news (PS1.3) | Demonstrate breaking bad news to a patient or their family. | S/SH | Small group discussion, guided observation of consultants, role-plays, demonstrations | MCQ/OSCE |
| 3 | Introduction to psychiatry | Eliciting, presenting & documenting psychiatric history (PS3.3) | Interview a patient to elicit onset, course, duration and progress of illness with respect to present illness, past history, medical history, family history, personal history and premorbid history relevant to present illness. | S/SH | Small group discussion, guided observation of consultants, role-plays, demonstrations | MCQ, OSCE |
| 4 | Introduction to psychiatry | Performing mini mental state examination (PS3.5) | Examine a patient to elicit consciousness, orientation, attention and registration, recent and remote memory, affect and mood, speech, form and content of thought, perception, insight into mental illness. | S/SH | Small group discussion, guided observation of consultants, role-plays, demonstrations | MCQ, OSCE |
| 5 | Alcohol use disorders | Describe, elicit & document clinical features of alcohol use disorders (PS4.2) | Interview a patient to elicit history of present illness with regards to presenting complaints, onset of harmful use, onset of dependence, history of withdrawal symptoms, history of seizures, history of delirium tremens and history of other medical complications; past history, family history, medical history, personal history and premorbid history in individuals with alcohol use disorders. | S/SH | Small group discussion, guided observation of consultants, role-plays, demonstrations, portfolio | MCQ, OSCE, Portfolio assessment |
| 6 | Substance use disorders-tobacco | Describe, elicit & document clinical features of substance use disorders-tobacco (PS4.2) | Interview a patient to elicit history of present illness with regards to onset of harmful use, onset of dependence, history of any withdrawal symptoms; past history, family history, medical history, personal history and premorbid history in individuals with tobacco use disorders. | S/SH | Small group discussion, guided observation of consultants, role-plays, demonstration, portfolio | MCQ, OSCE, Portfolio assessment |
| 7 | Depression | Describe, elicit & document clinical features in patients with depression (PS6.2) | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with depression. Perform a mental status examination to assess thought, perception and affect in a patient with depression. | S/SH S/SH | Small group discussion, guided observation of consultants, role-plays, demonstrations, portfolio Small group discussion, guided observation of consultants, role-plays, demonstrations, portfolio | MCQ, OSCE, Portfolio assessment MCQ, OSCE, Portfolio assessment |
| 8 | Anxiety disorders (excluding OCD) | Describe, elicit & document clinical features in patients with anxiety (PS8.2) | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with anxiety disorders. | S/SH S/SH | Small group discussion, guided observation of consultants, role-plays, demonstrations, portfolio Small group discussion, guided | MCQ, OSCE, Portfolio assessment |

| | | | | | | |
|----|---------------------------------|---|---|----------------------|--|--|
| | | | Perform a mental status examination to assess thought, perception and affect in a patient with anxiety disorders. | | observation of consultants, role-plays, demonstrations, portfolio | MCQ, OSCE, Portfolio assessment |
| 9 | Bipolar and Psychotic disorders | Describe, elicit & document clinical features in patients with bipolar disorders (PS7.2) Describe, elicit & document clinical features in patients with psychotic disorders (PS5.2) | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with bipolar disorder/ schizophrenia. Perform a mental status examination to assess thought, perception and affect in a patient with bipolar disorder/ schizophrenia. | S/S H S/S H | Small group discussion, guided observation of consultants, role-plays, demonstrations, portfolio Small group discussion, guided observation of consultants, role-plays, demonstrations, portfolio | MCQ, OSCE, Portfolio assessment MCQ, OSCE, Portfolio assessment |
| 10 | | End-of-postings assessment with feedback | | | | MCQ, OSCE |

DAILY WORKFLOW:

- 9.45am-10.30am: Classroom teaching- suggested TL methods are small group discussion, role-plays guided by scripts and observer checklists, clinical demonstrations and use of AV teaching aides.
- 10.30am-12.30pm: Students will tag with their clinical guides- suggested TL methods are guided observation of consultants and clinical demonstrations with patients in the OPD or on ward rounds, and formative assessment based on the student's portfolio.

END-OF-POSTING ASSESSMENT:

- 10 MCQs (10 marks)
- 1 OSCE skills station (20 marks)

CRITERIA FOR POSTING COMPLETION:

- Each student will be required to complete two case records in their logbook.
- 50% marks in the end-of posting assessment.

| | TOPIC | COMPETENCIES | SPECIFIC LEARNING OBJECTIVE | T/L METHODS | ASSESSMENT |
|---|--|---|--|---|------------------------------|
| 1 | Recap of psychiatric history and examination | Eliciting, presenting & documenting psychiatric history and examination (PS3.3, PS6.2, PS7.2, PS5.2, PS8.2) | Document and present a history in patients with mental disorder including current illness, past history, medical history, family history, personal history and premorbid history. Perform a mental status examination to assess general appearance, psychomotor activity, speech, affect, thought and perception | S/SH Small group discussion, guided observation of consultants, role-plays, demonstrations | CBD, Portfolio assessment |
| 2 | Organic Psychiatry | Eliciting delirium using the criteria and describe the higher mental functions. PS3.5 | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history in a patient with delirium. Perform a mental status examination to assess higher mental functions in a patient with delirium | K/KH Role play, guided observation, demonstration | MCQ, OSCE |
| 3 | Family education Part 1 | Describe the steps of family education in a simulated environment in a patient with substance use disorder, Depression, Anxiety disorders (PS4.5, PS6.5, PS8.5) | Interview patients' family and enumerate and demonstrate the steps of communicating the diagnosis and need for treatment for a specific diagnosis and referral to specialists | S/SH Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aid | OSCE, DOPS OSCE, DOPS |
| | Family education part 2 | Describe steps of family education in a simulated environment in a patient with severe mental illness and elderly with psychiatric illnesses (PS5.4, PS7.5, PS16.5) | Interview patients' family and enumerate and demonstrate the steps of communicating the diagnosis and need for treatment for a specific diagnosis and referral to specialists | S/SH Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aid | |
| 4 | Stress related/ Dissociative disorders | Describe, elicit & document clinical features of stress related/dissociative disorders. Enumerate, describe and interpret their laboratory investigations PS9.2, PS9.3 | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with stress | K/KH Guided observation of consultants, role-plays, demonstrations, simulations | MCQ, OSCE, DOPS |

| | | | | | |
|---|--|--|--|---|----------------------|
| | | | related disorders. Perform a mental status examination to assess thought, perception and affect in a patient with stress related/dissociative disorder | | |
| 5 | Somatoform disorder | Describe, elicit & document clinical features of somatoform disorders. Enumeration, describe and interpret laboratory investigations PS10.2, PS10.3 | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with somatoform disorders. Perform a mental status examination to assess thought, perception and affect in a patient with somatoform disorder | K/KH Guided observation of consultants, role-plays, demonstrations, simulations | MCQ, OSCE, DOPS |
| 6 | Personality disorder and gender related issues | Describe, elicit & document clinical features of personality disorders and gender related issues. Enumeration, describe and interpret laboratory investigations in such patients PS11.2, PS11.3, P13.2, P13.3 | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with personality disorders and gender related issues. Perform a mental status examination to assess general appearance, speech, thought, perception and affect in a patient with personality disorder and gender identity issues. | K/KH Guided observation of consultants, role-plays, demonstrations, simulations | MCQ |
| 7 | Psychosomatic disorder | Describe, elicit & document clinical features in patients with psychosomatic disorders. Discuss the psychological factors associated with worsening of underlying medical conditions. Enumeration, describe and interpret laboratory | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with psychosomatic disorder. Perform a mental status examination to assess thought, | K/KH Guided observation of consultants, role-plays, demonstrations, simulations | MCQ, OSCE, DOPS, CBD |

| | | | | | |
|-----------|---|--|---|---|----------------|
| | | investigations in such patients PS12.2, PS12.3 | perception and affect in a patient with Psychosomatic disorder | | |
| 8 | Child and adolescent Psychiatric disorders | Describe, elicit & document clinical features in patients with child and adolescent psychiatric disorders. Enumeration, describe and interpret laboratory investigations in such patients PS14.2 | Interview a child/adolescent patient to elicit history of present illness with regards to onset, duration, progress and course of illness, family history, family structure, birth and developmental history, school history, temperament. Perform a head-to-toe physical examination including systemic examination. Perform interview with the child to assess general appearance, psychomotor activity, affect and thought. | K/KH Guided observation of consultants, role-plays, demonstrations, simulations | MCQ, OSCE, CBD |
| 9 | Mental retardation | Describe, elicit & document clinical history in child with mental retardation. Perform adequate physical examination in such children. Choose appropriate investigations in child with mental retardation PS15.4 | Interview a child/adolescent patient to elicit history of present illness with regards to onset, duration, progress and course of illness, family history, family structure, birth and developmental history, school history, temperament. Perform a head-to-toe physical examination including systemic examination. Perform interview with the child to assess general appearance, psychomotor activity, thought and intelligence including adaptive functioning. | K/KH Guided observation of consultants, role-plays, demonstrations, simulations | MCQ, CBD, OSCE |
| 10 | Lab investigation in alcohol use disorders, other substance use disorders, depression | Enumeration, describe and interpret laboratory investigations in such patients (PS4. 3, PS6.3, PS7.3, PS8.2, PS8.3) | Enumerate and describe at least two indications of laboratory tests used in alcohol use disorders and other substance use disorders, depression and bipolar disorder, anxiety disorder | K/KH Small group discussion | MCQ |

| | | | | | |
|-----------|---|---|--|---|---|
| | on, bipolar disorder , anxiety disorder | | | | |
| 11 | Depressi on and bipolar disorder | Suicide risk assessment PS6.3, PS7.3 | Interview a patient and enumerate risk factors for suicide in the patient. Elicit components of intentionality and lethality | S/SH Demonstration, small group discussion | MCQ, Portfolio assessme nt, OSCE,DOP S |
| | | Assessment and feedback | | | |

DAILY WORKFLOW:

- 9.45am-10.30am: Classroom teaching- suggested TL methods are small group discussion, role-plays guided by scripts and observer checklists, clinical demonstrations and use of AV teaching aides.
- 10.30am-12.30pm: Students will tag with their clinical guides- suggested TL methods are guided observation of consultants and clinical demonstrations with patients in the OPD or on ward rounds, and formative assessment based on the student's portfolio.

END-OF-POSTING ASSESSMENT:

- 10 MCQs (10 marks)
- 1 OSCE skills station (20 marks)

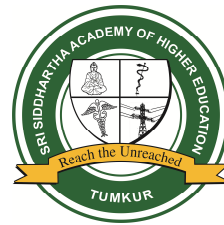
CRITERIA FOR POSTING COMPLETION:

- Each student will be required to complete two cases in their logbook.
- 50% marks in the end-of posting assessment.

Acknowledgements

- 1) This curriculum was adapted from the draft document prepared by the Indian Psychiatry Society UG education subcommittee 2021-2022:
Chairperson: Dr Ravi Gupta,
Co-chairperson: Dr Vinay H R, Convenor: Dr Priya Sreedaran, Advisor: Dr Anil Nischal and EC Co-ordinator: Dr Adarsh Tripathi
- 2) Dr Luke Salazar and Dr Bhuvaneshwari Sethuraman, from Department of Psychiatry, St John's Medical College, Bangalore

Sri Siddhartha Academy of Higher Education, Tumkur



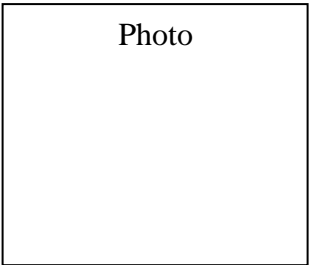
Psychiatry Log book

For Undergraduates

As Per

Competency-Based Medical Education Curriculum

BASIC PROFORMA OF THE STUDENT



PARTICULARS OF THE STUDENT:

Name of the student :

MBBS Batch :

Father's name :

Mother's name :

Roll No :

SSAHE Reg No :

Address :

Contact number :

Email-ID :

Signature of the student:.....

PREFACE

This booklet has been adopted from the guidelines of the Indian Psychiatry Society UG education subcommittee 2021-2022 and complies with the “**Guidelines for preparing Logbook for Undergraduate Medical Education Program- 2019**” as per **CBME (Competency Based Medical Education) Guidelines- 2019**. It is for use by faculty members, institutions, and Universities to track and record the progress of an undergraduate student through the specified 18 competencies in Dermatology. The model logbook can be used as a guideline by Medical Colleges and Universities, and can be adapted / modified as per requirement.

This model logbook is with an aim to create a standard protocol for documenting the achievement of competencies allotted to Psychiatry as per the **Competency Based UG Curriculum (2018)** and the **Regulations on Graduate Medical Education, 2019, Part II**.

The Competency based curriculum places emphasis on acquisition of defined knowledge, skills, attitudes and values by the learner so as to be a capable physician of first contact in community. This logbook aims to document the acquisition of these milestones during the learner’s stay in the Department of Psychiatry. This logbook would be a verifiable record of the learner’s progression step-by-step. It has to be maintained as an essential document and filled in a timely manner, to enable progression to the next stage of learning.

Completion of specified activities, and submission of certified logbook is necessary for clearing Formative Assessment in Psychiatry. **Successful documentation and submission of the logbook should be a prerequisite for being allowed to take the final summative examination.**

INDEX

Contents

Page Number

| | | |
|-----|---|--|
| 1. | BONAFIDE CERTIFICATE | |
| 2. | GENERAL INFORMATION | |
| 3. | PHASE II <ul style="list-style-type: none">• Competencies that are Required to be achieved during clinical posting• Clinical Case Presentation Record during 1st posting• Case records with reflections during 1st posting | |
| 4. | PHASE III PART 1 <ul style="list-style-type: none">• Clinical Case Presentation Record during 2nd posting• Case records with reflections during 2nd posting | |
| 5. | SCIENTIFIC PROJECT LIKE ICMR/PRESENTATIONS/ OUTREACH ACTIVITIES | |
| 6. | ACHIVEMENTS | |
| 7. | EXTRACURRICULAR ACTIVITIES | |
| 8. | ASSESSMENT RECORD | |
| 9. | ATTENDANCE EXTRACT | |
| 10. | FINAL SUMMARY | |

(Name of College)

Department of Psychiatry

BONAFIDE CERTIFICATE

This is to certify that the candidate Reg No..... has satisfactorily completed all requirements mentioned in this Logbook for undergraduates in Psychiatry including related AETCOM modules as per the Competency-Based Undergraduate Medical Education Curriculum, Graduate Medical Regulation 2019.
He/ She is eligible to appear for the University assessment.

Faculty Incharge:

Head of Department:

Name:

Name:

Signature:

Signature:

Place:

Place:

Date:

Date:

2. GENERAL INSTRUCTIONS

- 1.** This logbook is a record of academic and other activities of the student during his/ her designated clinical posting in the Department of DVL.
- 2.** Entries in the logbook reflect the activities undertaken by the student during the posting and are certified by the faculty.
- 3.** The student is responsible for maintaining his/her logbook regularly.
- 4.** The student is responsible for getting the logbook entries verified by concerned faculty regularly. They will not be signed/ verified/ certified after 15 days have elapsed after the end of posting.
- 5.** The logbook should be verified by the Head of Department before forwarding the application of the student for the University Examination. This is mandatory requirement for appearing for University Examinations
- 6.** The reflections should demonstrate the learning of the student that has taken place during the period of clinical posting. Please do not simply repeat the activities performed. A note on the learning experience, what was learnt and how it is going to be useful in the future, is expected. Reflections will be a useful document and assess learning for many competencies where formal assessment is not being done. Student needs to write academically useful reflections as per the prescribed format and within the time frame of the posting. These will be assessed by the teachers.

A. COMPETENCIES to be acquired during clinical postings 1, Phase 2

| No | Topic | Competencies | SLOs |
|----|-----------------------------------|---|--|
| 1 | Doctor patient relationship | Developing rapport & empathy (PS1.1, PS3.4) Importance of confidentiality (PS1.4) | Define and describe the meaning of terms rapport and empathy. Demonstrate comfort with communicating with patient, use modes of communication enabling patient to feel safe and comfortable to participate in a dialogue. Enumerate the ethical principles of confidentiality including safeguarding of information, and consent to disclose information. Enumerate conditions under which confidentiality can be breached. |
| 2 | Breaking bad news | Breaking bad news (PS1.3) | Demonstrate breaking bad news to a patient or their family. |
| 3 | Introduction to psychiatry | Eliciting, presenting & documenting psychiatric history (PS3.3) | Interview a patient to elicit onset, course, duration and progress of illness with respect to present illness, past history, medical history, family history, personal history and premorbid history relevant to present illness. |
| 4 | Introduction to psychiatry | Performing mini mental state examination (PS3.5) | Examine a patient to elicit consciousness, orientation, attention and registration, recent and remote memory, affect and mood, speech, form and content of thought, perception, insight into mental illness. |
| 5 | Alcohol use disorders | Describe, elicit & document clinical features of alcohol use disorders (PS4.2) | Interview a patient to elicit history of present illness with regards to presenting complaints, onset of harmful use, onset of dependence, history of withdrawal symptoms, history of seizures, history of delirium tremens and history of other medical complications; past history, family history, medical history, personal history and premorbid history in individuals with alcohol use disorders. |
| 6 | Substance use disorders- tobacco | Describe, elicit & document clinical features of substance use disorders- tobacco (PS4.2) | Interview a patient to elicit history of present illness with regards to onset of harmful use, onset of dependence, history of any withdrawal symptoms; past history, family history, medical history, personal history and premorbid history in individuals with tobacco use disorders. |
| 7 | Depression | Describe, elicit & document clinical features in patients with depression (PS6.2) | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with depression. Perform a mental status examination to assess thought, perception and affect in a patient with depression. |
| 8 | Anxiety disorders (excluding OCD) | Describe, elicit & document clinical features in patients with anxiety (PS8.2) | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and |

| | | | |
|----|---------------------------------|---|--|
| | | | <p>premorbid history in a patient with anxiety disorders.</p> <p>Perform a mental status examination to assess thought, perception and affect in a patient with anxiety disorders.</p> |
| 9 | Bipolar and Psychotic disorders | Describe, elicit & document clinical features in patients with bipolar disorders (PS7.2) Describe, elicit & document clinical features in patients with psychotic disorders (PS5.2) | <p>Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with bipolar disorder/ schizophrenia.</p> <p>Perform a mental status examination to assess thought, perception and affect in a patient with bipolar disorder/ schizophrenia.</p> |
| 10 | | End-of-postings assessment with feedback | |

DAILY WORKFLOW (Suggested):

- 9.45am-10.30am: Classroom teaching- suggested TL methods are small group discussion, role-plays guided by scripts and observer checklists, clinical demonstrations and use of AV teaching aides.
- 10.30am-12.30pm: Students will tag with their clinical guides- suggested TL methods are guided observation of consultants and clinical demonstrations with patients in the OPD or on ward rounds, and formative assessment based on the student's portfolio.

END-OF-POSTING ASSESSMENT:

- 10 MCQs (10 marks)
- 1 OSCE skills station (20 marks)

CRITERIA FOR POSTING COMPLETION:

- Each student will be required to complete two case records in their logbook.
- 50% marks in the end-of posting assessment.

1st Posting

CLINICAL CASE PRESENTATION RECORD

Summary of Clinical Case Presentations/Spotters*

(*Departments may create/continue with a case record book for documentation of cases)

At least 3 cases per clinical posting

| Serial No. | Date | Patient Name & ID | Diagnosis | Case Presented/ Attended Write P/A | Facilitator's Signature |
|------------|------|-------------------|-----------|------------------------------------|-------------------------|
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |

1st Posting Phase II

REFLECTIONS: CLINICAL CASE PRESENTATION

U.G. PSYCHIATRY PORTFOLIO- SESSION NOTES PROFORMA (Alcohol/Tobacco)

Student name: Roll no.:

Session date:

Session objectives: (SLOs) Interview a patient to elicit history of present illness with regards to presenting complaints, onset of harmful use, onset of dependence, history of withdrawal symptoms, history of seizures, history of delirium tremens and history of other medical complications; past history, family history, medical history, personal history and premorbid history in individuals with alcohol use disorders.

OR Interview a patient to elicit history of present illness with regards to onset of harmful use, onset of dependence, history of any withdrawal symptoms; past history, family history, medical history, personal history and premorbid history in individuals with tobacco use disorders.

Patient initials:

Age:

Sex:

History:

Mental status examination:

Reflections: (What were the strategies used to achieve the objectives? What went well? What did not go well? How did you feel?)

Supervisor feedback: (Identify better strategies to achieve the objectives)

Supervisor signature:

Date:

U.G. PSYCHIATRY PORTFOLIO- SESSION NOTES PROFORMA
(Depression/Anxiety)

Student name:

Roll no.:

Session date:

Session objectives: (SLOs) 1. Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with depression/ anxiety.
2. Perform a mental status examination to assess thought, perception and affect in a patient with depression/ anxiety.

P Patient initials :

Age:

Sex:

Hist

ory:

Mental status examination:

Reflections: (What were the strategies used to achieve the objectives? What went well? What did not go well? How did you feel?)

Supervisor feedback: (Identify better strategies to achieve the objectives)

Supervisor signature:

Date:

Phase II
End of posting Assessment

Suggested Methods

- 1. Viva Voce**
- 2. CA-OSCE/ Short case**
- 3. Bedside assessment**
- 4. MCQs**

| Date | Marks obtained | Total Marks | Feedback Student | Feedback Faculty |
|------|----------------|-------------|------------------|------------------|
| | | | | |

Phase III Part 1

CLINICAL CASE PRESENTATION RECORD

Summary of Clinical Case Presentations/Spotters*

(*Departments may create/continue with a case record book for documentation of cases)

At least 3 cases per clinical posting. Competencies to be addressed is given next)

[illegible]

| | TOPIC | COMPETENCIES | SPECIFIC LEARNING OBJECTIVE |
|---|--|---|---|
| 1 | Recap of psychiatric history and examination | Eliciting, presenting & documenting psychiatric history and examination (PS3.3, PS6.2, PS7.2, PS5.2, PS8.2) | Document and present a history in patients with mental disorder including current illness, past history, medical history, family history, personal history and premorbid history. Perform a mental status examination to assess general appearance, psychomotor activity, speech, affect, thought and perception |
| 2 | Organic Psychiatry | Eliciting delirium using the criteria and describe the higher mental functions. PS3.5 | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history in a patient with delirium. Perform a mental status examination to assess higher mental functions in a patient with delirium |
| 3 | Family education Part 1 | Describe the steps of family education in a simulated environment in a patient with substance use disorder, Depression, Anxiety disorders (PS4.5, PS6.5, PS8.5) | Interview patients' family and enumerate and demonstrate the steps of communicating the diagnosis and need for treatment for a specific diagnosis and referral to specialists |
| | Family education part 2 | Describe steps of family education in a simulated environment in a patient with severe mental illness and elderly with psychiatric illnesses (PS5.4, PS7.5, PS16.5) | Interview patients' family and enumerate and demonstrate the steps of communicating the diagnosis and need for treatment for a specific diagnosis and referral to specialists |
| 4 | Stress related/Dissociative disorders | Describe, elicit & document clinical features of stress related/dissociative disorders. Enumerate, describe and interpret their laboratory investigations PS9.2, PS9.3 | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with stress related disorders. Perform a mental status examination to assess thought, perception and affect in a patient |

| | | | |
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| | | | with stress related/dissociative disorder |
| 5 | Somatoform disorder | Describe, elicit & document clinical features of somatoform disorders. Enumeration, describe and interpret laboratory investigations PS10.2, PS10.3 | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with somatoform disorders. Perform a mental status examination to assess thought, perception and affect in a patient with somatoform disorder |
| 6 | Personality disorder and gender related issues | Describe, elicit & document clinical features of personality disorders and gender related issues. Enumeration, describe and interpret laboratory investigations in such patients PS11.2, PS11.3, P13.2, P13.3 | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with personality disorders and gender related issues. Perform a mental status examination to assess general appearance, speech, thought, perception and affect in a patient with personality disorder and gender identity issues. |
| 7 | Psychosomatic disorder | Describe, elicit & document clinical features in patients with psychosomatic disorders. Discuss the psychological factors associated with worsening of underlying medical conditions. Enumeration, describe and interpret laboratory investigations in such patients PS12.2, PS12.3 | Interview a patient to elicit history of present illness with regards to onset, duration, progress and course of illness and clinical features; past history, medical history, family history, personal history and premorbid history in a patient with psychosomatic disorder. Perform a mental status examination to assess thought, perception and affect in a patient with Psychosomatic disorder |
| 8 | Child and adolescent Psychiatric disorders | Describe, elicit & document clinical features in patients with child and adolescent psychiatric disorders. Enumeration, describe and interpret laboratory investigations in such patients PS14.2 | Interview a child/adolescent patient to elicit history of present illness with regards to onset, duration, progress and course of illness, family history, family structure, birth and developmental history, school history, temperament. Perform a head-to-toe physical examination including |

| | | | |
|-----------|---|--|---|
| | | | systemic examination. Perform interview with the child to assess general appearance, psychomotor activity, affect and thought. |
| 9 | Mental retardation | Describe, elicit & document clinical history in child with mental retardation. Perform adequate physical examination in such children. Choose appropriate investigations in child with mental retardation PS15.4 | Interview a child/adolescent patient to elicit history of present illness with regards to onset, duration, progress and course of illness, family history, family structure, birth and developmental history, school history, temperament. Perform a head-to-toe physical examination including systemic examination. Perform interview with the child to assess general appearance, psychomotor activity, thought and intelligence including adaptive functioning. |
| 10 | Lab investigation in alcohol use disorders, other substance use disorders, depression, bipolar disorder, anxiety disorder | Enumeration, describe and interpret laboratory investigations in such patients (PS4. 3, PS6.3, PS7.3,PS8.2, PS8.3) | Enumerate and describe at least two indications of laboratory tests used in alcohol use disorders and other substance use disorders, depression and bipolar disorder, anxiety disorder |
| 11 | Depression and bipolar disorder | Suicide risk assessment PS6.3, PS7.3 | Interview a patient and enumerate risk factors for suicide in the patient. Elicit components of intentionality and lethality |
| | | Assessment and feedback | |

DAILY WORKFLOW:

- 9.45am-10.30am: Classroom teaching- suggested TL methods are small group discussion, role-plays guided by scripts and observer checklists, clinical demonstrations and use of AV teaching aides.
- 10.30am-12.30pm: Students will tag with their clinical guides- suggested TL methods are guided observation of consultants and clinical demonstrations with patients in the OPD or on ward rounds, and formative assessment based on the student's portfolio.

END-OF-POSTING ASSESSMENT:

- 10 MCQs (10 marks)
- 1 OSCE skills station (20 marks)

CRITERIA FOR POSTING COMPLETION:

- Each student will be required to complete two cases in their logbook.
- 50% marks in the end-of posting assessment.

U.G. PSYCHIATRY PORTFOLIO- SESSION NOTES PROFORMA

(Family education in a patient with substance use /anxiety/depression/severe mental illness/elderly with psychiatric illness)

Student name:

Roll no.:

Session date:

Session objectives: (SLOs) 1. Interview patients' family and enumerate and demonstrate the steps of communicating the diagnosis, need for treatment for a specific diagnosis and referral to specialists

Patient initials:

Age:

Sex:

History:

Mental status examination:

Reflections: (What were the strategies used to achieve the objectives? What went well? What did not go well? How did you feel?)

Supervisor feedback: (Identify better strategies to achieve the objectives)

Supervisor signature and Date:

U.G. PSYCHIATRY PORTFOLIO- SESSION NOTES PROFORMA
(Suicidal risk assessment)

Student name:

Roll no.:

Session date:

Session objectives: (SLOs) 1. Interview a patient and enumerate risk factors for suicide in the patient

2. Elicit components of intentionality and lethality

Patient initials:

Age:

Sex:

History:

Mental status examination:

Reflections: (What were the strategies used to achieve the objectives? What went well? What did not go well? How did you feel?)

Supervisor feedback: (Identify better strategies to achieve the objectives)

Supervisor signature and Date:

Phase III Part 1
End of posting Assessment

Suggested Methods

1. Viva Voce
2. CA-OSCE / Short case
3. Bedside assessment
4. MCQs

| Date | Marks obtained | Total Marks | Feedback Student | Feedback Faculty |
|------|----------------|-------------|------------------|------------------|
| | | | | |

6. SCIENTIFIC PROJECT PRESENTATIONS/REPORTS/OUTREACH ACTIVITIES/UG QUIZ

| SL NO | DATE | PARTICULARS | SIGNATURE OFSTAFF |
|----------|------|-------------|----------------------|
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9. ASSESSMENT RECORD

| Phase | Duration (From-To) | Assessment score (marks obtained) | Total marks | Assessment (%) | Remarks | Faculty Signature |
|---------------------|-----------------------|--|----------------|-------------------|---------|----------------------|
| Phase II | | | | | | |
| Phase III Part I | | | | | | |
| Total | | | | | | |

10. SUMMARY OF ATTENDANCE

| Rotation | Phase | Duration (Weeks) | From | To | Total classes held | Number of classes attended | Faculty Signature |
|-----------------|------------------------|---------------------|------|----|--------------------------|----------------------------------|----------------------|
| 1 st | Phase II | 2 weeks | | | | | |
| 2 nd | Phase III Part I | 2 weeks | | | | | |
| Total | | | | | | Cumulative attendance n/% | |

Sri Siddhartha Academy of Higher Education, Tumkur



Dermatology, Venereology & Leprosy Curriculum

as per

Competency-Based Medical Education Curriculum

**SSAHE Dermatology, Venereology & Leprosy Curriculum as per the new
Competency Based Medical Education**

Preamble

The NMC envisages that the Indian Medical Graduate (IMG), should function as the Physician of first contact in the community, to provide holistic health care to the evolving needs of the nation and the world. To fulfil this the IMG should be able to perform the following roles: a clinician, a communicator, a lifelong learner, a professional and a team leader.

Competency-based medical education (CBME) is an outcomes-based training model that has become the new standard of medical education internationally. This new curriculum is being implemented across the country and the first batch has been enrolled since the academic year 2019. The regulatory and accrediting body NMC had started the process by training faculty across the country in the key principles of CBME and developing key competencies for each speciality with the input from expert groups under each speciality.

Dermatology is the branch of medicine dealing with the skin and its appendages. It is a speciality which deals with diseases of skin including leprosy and sexually transmitted diseases, hair, nails, and cosmetic problems and encompasses both medical and surgical modalities. The dermatology undergraduate curriculum provides the IMG the requisite knowledge, essential skills, and appropriate attitudes to be able to diagnose and treat common skin disorders and to be able to recognise and refer other cutaneous conditions.

The NMC, in the Graduate medical regulations 2019, has provided the list of dermatology competencies required for an IMG and these have been included in this dermatology curriculum document. The Specific learning objectives (SLO's) to achieve each competency has been listed along with the suggested Teaching-Learning methods and preferred assessment methods both formative and summative.

Since dermatology doesn't have a separate dermatology exam paper for undergraduate, model division of marks for dermatology under medicine papers has been highlighted. Also, model questions for the same has been attached.

Goals and Objectives of the SSAHE Dermatology, Venereology & Leprosy Curriculum

Goals

Specific goal for IMG in dermatology is to identify and treat common dermatology disease and to refer as appropriate.

Objectives

A) Knowledge

At the end of the course student should be able to:

- c. Describe the applied anatomy, physiology and biochemical attributes of the normal skin and its appendages.
- d. Understanding of the principles of diagnosis of diseases of the skin and its appendages.
- e. Demonstrate the ability to apply the knowledge in a clinical setting.

(B) Skills

At the end of the course the student should be able to:

- a. Ability to recognize, diagnose, order appropriate investigations and treat common diseases of the skin including leprosy in the primary care setting and refer as appropriate
- b. A syndromic approach to the recognition, diagnosis, prevention, counselling, testing and management of common sexually transmitted diseases including HIV based on national health priorities.
- c. Ability to recognize and treat emergencies including drug reactions and refer as appropriate.

C) Attitude and communication skills

At the end of the course the student should be able to:

- e. Communicate effectively with patients, their families and the public at large.
- f. Communicate effectively with peers and teachers demonstrate the ability to work effectively with peers in a team.
- g. Demonstrate professional attributes of punctuality, accountability and respect for teachers and peers.
- h. Appreciate the issues of equity and social accountability while undergoing all clinical encounters.

| Teaching hours (Third professional, Part-I) | | | | |
|---|----------------|--|--------------------------------|---------------|
| Subject | Teaching hours | Tutorials/Seminars/Integrated teaching (Hours) | Self directed learning (Hours) | Total (Hours) |
| Dermatology | 20 | 5 | 5 | 30 |

| Clinical postings (Total : 6 weeks) |
|---|
| 2 weeks: II MBBS 2 weeks: III MBBS Part I 2 weeks: III MBBS Part II |

Theory teaching hours (Third professional, Part-I)

| THEORY | | | | |
|---------|--|----------------|--------|------------|
| Sl. No. | Topic | Competencies | Time | T/L method |
| 1 | Structure & function of skin with its appendages | AN 4.2 | 1 hour | Lecture |
| 2 | Acne | DR 1.1, DR 1.3 | 1 hour | Lecture |
| 3 | Vitiligo | DR 2.2 | 1 hour | Lecture |
| 4 | Papulosquamous disorders: Psoriasis | DR 3.3 | 1 hour | Lecture |

| | | | | |
|----|--------------------------------|--|-----------------|---------|
| 5 | Lichen Planus | DR 4.2 | 1 hour | Lecture |
| 6 | Scabies | DR.5.1, DR5.3 | 1 hour | Lecture |
| 7 | Pediculosis | DR 6.1 | 1 hour | Lecture |
| 8 | Fungal infections | DR 7.1, DR 7.3 | 1 hour | Lecture |
| 9 | Viral Infections | DR 8.1, DR 8.7 | 1 hour | Lecture |
| 10 | Leprosy Part I | DR 9.1, DR 9.4, DR 9.5 | 1 hour | Lecture |
| 11 | Leprosy Part II | DR 9.6, DR 9.7 | 1 hour | Lecture |
| 12 | STD's Part I | DR 10.3, DR 10.4 | 1 hour | Lecture |
| 13 | STD's Part I | DR 10.6, 10.8, DR 10.9, DR 10.10, DR 10.11 | 1 hour | Lecture |
| 14 | HIV | DR 11.1, DR 11.3 | 1 hour | Lecture |
| 15 | Dermatitis & Eczema | DR 12.1, DR 12.3, DR 12.4 | 1 hour | Lecture |
| 16 | Urticaria & angioedema | DR 14.1, 14.5 | 1 hour | Lecture |
| 17 | Bacterial Infections/ Pyoderma | DR 15.3 | 1 hour | Lecture |
| 18 | Nutritional Disorders & Skin | DR 17.1, 17.2, 17.3, 17.4 | 1 hour | Lecture |
| 19 | Systemic Diseases & Skin | DR 18.1, DR 18.2 | 1 hour | Lecture |
| 20 | Drugs in skin diseases | PH 1.57 | 1 hour | Lecture |
| | Total | | 20 hours | |

List of all Dermatology Competencies with their specific learning objectives, with suggested teaching-learning and assessment methods

| | Competencies | Specific learning objectives | Teaching learning methods | Assessment |
|--|--|---|---------------------------|----------------------------|
| Topic: Structure & function of skin with its appendages | | | | |
| AN 4.2 | Structure & function of skin with its appendages | Structure & function of Skin Structure & function of Hair Structure & function of Nail | Lecture | MCQs at the end of lecture |
| Topic: Acne | | | | |
| DR1.1 | Enumerate the causative and risk factors of acne | Composition of sebum Functions of sebaceous glands Etiopathogenesis of acne Risk factors for development of acne | Lecture | MCQs at the end of lecture |

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|--|--|--|---------|----------------------------|
| DR1.3 | Describe the treatment and preventive measures for various kinds of acne | Preventive measures to control Topical therapeutics in acne Systemic therapeutics in acne Lasers in management of acne | Lecture | MCQs at the end of lecture |
| Topic: Vitiligo | | | | |
| DR2.2 | Describe the treatment of vitiligo | Etiopathogenesis of vitiligo Clinical types of vitiligo Topical modalities in treatment of vitiligo Systemic modalities in treatment of vitiligo Phototherapy in management of vitiligo | Lecture | MCQs at the end of lecture |
| Topic: Papulosquamous disorders | | | | |
| DR 3.3 | Enumerate the indications for and describe the various modalities of treatment of psoriasis including topical, systemic and phototherapy | Etiopathogenesis of psoriasis Clinical features and types of psoriasis Diagnosis of psoriasis Topical therapy and its indications Phototherapy and its indications Systemic therapy and its indications Biologicals in psoriasis | Lecture | MCQs at the end of lecture |
| Topic: Lichen planus | | | | |
| DR 4.2 | Enumerate and describe the treatment modalities for lichen planus | Etiopathogenesis of lichen planus Clinical features and types of lichen planus Diagnosis of lichen planus Topical and systemic modalities of lichen planus | Lecture | MCQs at the end of lecture |
| Topic: Scabies | | | | |
| DR 5.1 | Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies in adults and children | Structure and life cycle of scabies mite Clinical types and presentations of scabies Complications of scabies | Lecture | MCQs at the end of lecture |
| DR 5.3 | Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies | Diagnosis of scabies General measures of treatment Topical scabicial agents and method of administration Systemic drugs for treatment | Lecture | MCQs at the end of lecture |

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|---------------------------------|--|--|---------|----------------------------|
| | | Adverse effects of scabicial agents Preventive measures to reduce transmission | | |
| Topic: Pediculosis | | | | |
| DR 6.1 | Describe the etiology pathogenesis and diagnostic features of pediculosis in adults and children | Etiopathogenesis of pediculosis Clinical features of pediculosis Complications of pediculosis Diagnosis of pediculosis Treatment modalities and method of administration | Lecture | MCQs at the end of lecture |
| Topic: Fungal Infections | | | | |
| DR 7.1 | Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of dermatophytes in adult and children | Etiopathogenesis of Dermatophytosis Clinical manifestations and types of dermatophytosis Laboratory diagnosis of dermatophytosis | Lecture | MCQs at the end of lecture |
| DR 7.3 | Describe the pharmacology and action of antifungal (systemic and topical) agents. Enumerate side effects of antifungal therapy | Mechanism of action, indications and side effect profile of systemic antifungals Mechanism of action, indications and side effect profile of topical antifungals | Lecture | MCQs at the end of lecture |
| Topic: Viral infections | | | | |
| DR 8.1 | Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of common viral infections of the skin in adults and children | Etio pathogenesis and clinical features of herpes virus infections Etio pathogenesis and clinical features of human papilloma virus infections Etiopathogenesis and clinical features of molluscum contagiosum | Lecture | MCQs at the end of lecture |
| DR 8.7 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for common viral illnesses of the skin | Mechanism of action, indications and side effect profile of antiviral therapy | Lecture | MCQs at the end of lecture |
| Topic: Leprosy | | | | |

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|---|---|---|---------|----------------------------|
| DR 9.1 | Classify describe the epidemiology etiology, microbiology,pathogenesis, clinical presentations and diagnostic features of Leprosy | History and epidemiology of Hansen's disease Microbiology and ultrastructure of M. Leprae Etiopathogenesis and clinical presentations of leprosy Laboratory diagnosis of leprosy | Lecture | MCQs at the end of lecture |
| DR 9.4 | Enumerate, describe and identify lepra reactions and supportive measures and therapy of lepra reactions | Etiopathogenesis,types and clinical features of lepra reactions Management of lepra reactions | Lecture | MCQs at the end of lecture |
| DR 9.5 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines | Mechanism of action, administration, indications and side effect profile of anti leprosy medication. | Lecture | MCQs at the end of lecture |
| DR 9.6 | Describe the treatment of Leprosy based on the WHO guidelines | Multi drug therapy | Lecture | MCQs at the end of lecture |
| DR 9.7 | Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma. | Complications of Hansen's disease Management of deformities in Hansen's disease | Lecture | MCQs at the end of lecture |
| Topic: Sexually Transmitted Diseases | | | | |
| DR 10.3 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis | Etiology, pathogenesis and microbiology of syphilis Clinical features, types of syphilis Laboratory diagnosis of syphilis Treatment of syphilis | Lecture | MCQs at the end of lecture |
| DR 10.4 | Describe the prevention of congenital syphilis | Laws and clinical manifestations of congenital syphilis Preventive aspects of congenital syphilis | Lecture | MCQs at the end of lecture |
| DR 10.6 | Describe the etiology, diagnostic and clinical features of non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) | Etiopathogenesis,types and clinical features of chancroid Etiopathogenesis, types and clinical features of Donovanosis Etiopathogenesis, types and clinical features of LGV | Lecture | MCQs at the end of lecture |

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|-------------------------------------|---|--|---------|----------------------------|
| DR 10.8 | 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) | Management of chancroid Management of donovanosis Management of LGV | Lecture | MCQs at the end of lecture |
| DR 10.9 | Describe the syndromic approach to ulcerative sexually transmitted disease | Syndromic management of genital ulcer disease | Lecture | MCQs at the end of lecture |
| DR 10.10 | Describe the etiology, diagnostic and clinical features and management of gonococcal and non-gonococcal urethritis | Etiopathogenesis of gonococcal urethritis and non-gonococcal urethritis Laboratory diagnosis of gonococcal urethritis and non-gonococcal urethritis Treatment of gonococcal and non gonococcal urethritis | Lecture | MCQs at the end of lecture |
| DR 10.11 | Describe the etiology, diagnostic and clinical features and management of vaginal discharge | Differential diagnosis of vaginal discharge Clinical features, risk factors and diagnosis of trichomoniasis Predisposing factors, clinical features and diagnosis of candidiasis Clinical features and diagnosis of bacterial vaginosis | Lecture | MCQs at the end of lecture |
| Topic: HIV | | | | |
| DR 11.1 | Describe the etiology, pathogenesis and clinical features of the dermatologic manifestations of HIV and its complications including opportunistic infections | Structure of HIV Etiopathogenesis and stages of HIV Cutaneous manifestations of AIDS Complications of AIDS | Lecture | MCQs at the end of lecture |
| DR 11.3 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for dermatologic lesions in HIV | Antiretroviral therapy:- Pharmacology, route of administration, indications and adverse reactions of ART. | Lecture | MCQs at the end of lecture |
| Topic: Dermatitis and Eczema | | | | |
| DR 12.1 | Describe the aetiopathogenesis of eczema | Definition of eczema Etiology and predisposing factors of eczema. | Lecture | MCQs at the end of lecture |

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|---|--|--|---------|----------------------------|
| DR 12.3 | Classify and grade eczema | Various classification and grading eczema | Lecture | MCQs at the end of lecture |
| DR 12.4 | Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the treatment of eczema | General measures in management of eczema Indications for topical therapy Indications for systemic therapy | Lecture | MCQs at the end of lecture |
| Topic: Urticaria Angioedema | | | | |
| DR 14.1 | Describe the etiology, pathogenesis and clinical precipitating features and classification of Urticaria and angioedema | Classification of urticaria and angioedema Etio-pathogenesis and precipitating factors of urticarial Clinical features of urticaria and angioedema | Lecture | MCQs at the end of lecture |
| DR 14.5 | Enumerate the indications and describe the pharmacology indications and adverse reactions of drugs used in the urticaria and angioedema | Diagnostic tests for urticaria and angioedema Treatment of urticaria and angioedema | Lecture | MCQs at the end of lecture |
| Topic: Pyoderma | | | | |
| DR 15.3 | Enumerate the indications and describe the pharmacology, indications and adverse reactions of topical and systemic drugs used in treatment of pyoderma | Classify pyoderma Etio-pathogenesis of pyodermas Clinical features of staphylococcal pyoderma Clinical features of streptococcal pyodermas Clinical features of other bacterial infections Management of pyoderma | Lecture | MCQs at the end of lecture |
| Topic: Nutritional Deficiencies and Skin | | | | |
| DR 17.1 | Enumerate and identify the cutaneous findings in vitamin A deficiency | Cutaneous manifestations of Vitamin A deficiency Treatment of Vitamin A deficiency | Lecture | MCQs at the end of lecture |
| DR 17.2 | Enumerate and describe the various skin changes in Vitamin B complex deficiency | Cutaneous manifestations of Vitamin B complex deficiency Treatment of Vitamin B complex deficiency | Lecture | MCQs at the end of lecture |
| DR 17.3 | Enumerate and describe the various changes in Vitamin C deficiency | Cutaneous manifestations of Vitamin C deficiency Treatment of Vitamin C deficiency | Lecture | MCQs at the end of lecture |
| DR 17.4 | Enumerate and describe the various changes in Zinc deficiency | Cutaneous manifestations of Zinc deficiency Treatment of Zinc deficiency | Lecture | MCQs at the end of lecture |

| Topic: Systemic diseases and the skin | | | | |
|--|---|---|---------|----------------------------|
| DR 18.1 | Enumerate the cutaneous features of Type 2 diabetes | Cutaneous manifestations of Type 2 diabetes | Lecture | MCQs at the end of lecture |
| DR 18.2 | Enumerate the cutaneous features of hypo/hyper-thyroidism | Cutaneous manifestations of Hypothyroidism Cutaneous manifestations of Hyperthyroidism | Lecture | MCQs at the end of lecture |
| Topic: Drugs in skin diseases | | | | |
| PH 1.57 | Drugs in skin disease | Topical agents in dermatology Systemic agents in dermatology | Lecture | MCQs at the end of lecture |

Self- Directed learning:

Duration: 5 hours

Students will be given clinical case scenarios. Reference books and E material will be suggested to them beforehand. Discussion regarding the case scenarios including approach to diagnosis and management will be done.

| Self- Directed learning | | |
|--------------------------------|-------------------------------|---------------------|
| Sl. No. | Topics | Competencies |
| 1 | Vesiculobullous disorders | DR 13.1-13.3 |
| 2 | Cutaneous adverse reaction | DR 12.7 |
| 3 | Leprosy | DR 9.1-9.7 |
| 4 | Collagen vascular disorders | DR 16.1 |
| 5 | STDs – Genital ulcer diseases | DR 10.9 |
| Duration | 5 hours | |

SGD (Small Group Discussion):

A small group of 25 students will be done. A topic is given to each group and same will be discussed among the group.

| Sl No. | Topic | Competencies | Duration (Hours) |
|-----------------------|---|---------------------|-------------------------|
| 1 | Cutaneous manifestations in Diabetes Mellitus | DR18.1 | 1 |
| 2 | Cutaneous manifestations in Thyroid disorders | DR18.2 | 1 |
| 3 | Cutaneous manifestations in HIV | DR11.1,11.3 | 1 |
| 4 | Psychocutaneous disorders | DR 9.7 | 1 |
| 5 | Collagen vascular disorders | DR16.1,16.2 | 1 |
| Total: 5 hours | | | |

Integration: The teaching should be aligned and integrated horizontally and vertically in order to emphasize the biologic basis of diseases of the skin, sexually transmitted diseases and leprosy and to provide an understanding that skin diseases may be a manifestation of systemic disease.

Topics for vertical integration

| SI No | Integrated teaching | Integrated with (Department) |
|-------|---|--|
| 1 | AN4.2 Describe structure & function of skin with its appendages | Anatomy |
| 2 | AN4.4 Describe modifications of deep fascia with its function | Anatomy |
| 3 | AN4.5 Explain principles of skin incisions | Anatomy |
| 4 | DR5.3 Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies | Pharmacology |
| 5 | DR6.1 Describe the etiology pathogenesis and diagnostic features of pediculosis in adults and children | Microbiology |
| 6 | DR7.1 Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of dermatophytes in adults and children | Microbiology |
| 7 | DR7.2 Identify Candida species in fungal scrapings and KOH mount | Microbiology |
| 8 | DR7.3 Describe the pharmacology and action of antifungal (systemic and topical) agents. Enumerate side effects of antifungal therapy | Microbiology, Pharmacology |
| 9 | DR8.1 Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of common viral infections of the skin in adults and children | Microbiology |
| 10 | DR8.7 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for common viral illnesses of the skin | Pharmacology |
| 11 | DR9.1 Classify describe the epidemiology etiology microbiology pathogenesis, clinical presentations and diagnostic features of Leprosy | Microbiology, Community medicine |
| 12 | DR9.4 Enumerate, describe and identify lepra reactions and supportive measures and therapy of lepra reactions | Pharmacology |
| 13 | DR9.5 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines | Pharmacology, Community medicine |
| 14 | DR9.6 Describe the treatment of Leprosy based on the WHO guidelines | Pharmacology, |

| | | |
|----|--|----------------------------|
| | | Community medicine |
| 15 | DR9.7 Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma. | Pharmacology, Psychiatry |
| 16 | DR10.1 Identify and classify syphilis based on the presentation and clinical manifestations | Microbiology |
| 17 | DR10.2 Identify spirochete in a dark ground microscopy | Microbiology |
| 18 | DR10.3 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis | Microbiology, Pharmacology |
| 19 | DR10.6 Describe the etiology, diagnostic and clinical features of non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) | Microbiology |
| 20 | DR10.7 Identify and differentiate based on the clinical features non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) | Microbiology |
| 21 | 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) | Microbiology, Pharmacology |
| 22 | DR11.1 Describe the etiology, pathogenesis and clinical features of the dermatologic manifestations of HIV and its complications including opportunistic infections | Microbiology |
| 23 | DR11.2 Identify and distinguish the dermatologic manifestations of HIV, its complications, opportunistic infections and adverse reactions | Microbiology |
| 24 | DR11.3 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for dermatologic lesions in HIV | Microbiology, Pharmacology |
| 25 | DR12.7 Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions | Microbiology, Pathology |
| 26 | DR14.1 Describe the etiology, pathogenesis and clinical precipitating features and classification of Urticaria and angioedema | Microbiology, Pathology |
| 27 | DR15.2 Identify staphylococcus on a gram stain | Microbiology |
| 28 | DR15.3 Enumerate the indications and describe the pharmacology, indications and adverse reactions of topical and systemic drugs used in treatment of pyoderma | Microbiology, Pharmacology |
| 29 | PH1.46 Describe the mechanisms of action, types, doses, side effects, indications and contraindications of antileprotic drugs | Pharmacology |
| 30 | DR16.2 Identify and distinguish Raynaud's phenomenon | Pathology |

| | | |
|----|---|--------------|
| 31 | DR17.1 Enumerate and identify the cutaneous findings in vitamin A deficiency | Biochemistry |
| 32 | DR17.2 Enumerate and describe the various skin changes in Vitamin B complex deficiency | Biochemistry |
| 33 | DR 17.3 Enumerate and describe the various changes in Vitamin C deficiency | Biochemistry |
| 34 | DR17.4 Enumerate and describe the various changes in Zinc deficiency | Biochemistry |
| 35 | PA34.1 Describe the risk factors, pathogenesis, pathology and natural history of squamous cell carcinoma of the skin | Pathology |
| 36 | PA34.2 Describe the risk factors, pathogenesis, pathology and natural history of basal cell carcinoma of the skin | Pathology |
| 37 | PA34.3 Describe the distinguishing features between a nevus and melanoma. Describe the etiology, pathogenesis, risk factors, morphology clinical features and metastases of melanoma | Pathology |
| 38 | MI4.3 Describe the etio-pathogenesis of Skin and soft tissue infections and discuss the clinical course, and the laboratory diagnosis. | Microbiology |
| 39 | MI7.2 Describe the etio-pathogenesis and discuss the laboratory diagnosis of sexually transmitted infections. Recommend preventive measures, wherever relevant. | Microbiology |
| 40 | PH1.57 Describe drugs used in skin disorders | Pharmacology |
| 41 | DR14.5 Enumerate the indications and describe the pharmacology indications and adverse reactions of drugs used in the urticaria and indications and adverse reactions of drugs used in the urticaria and angioedema | Pharmacology |

Topics for horizontal integration

| SI No | Integrated teaching | Integrated with (Department) |
|-------|--|------------------------------|
| 1 | DR5.1 Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies in adults and children | Pediatrics |
| 2 | DR5.2 Identify and differentiate scabies from other lesions in adults and children | Pediatrics |
| 3 | DR5.3 Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies | Pediatrics |

| | | |
|----|---|------------------|
| 4 | DR6.1 Describe the etiology pathogenesis and diagnostic features of pediculosis in adults and children | Pediatrics |
| 5 | DR6.2 Identify and differentiate pediculosis from other skin lesions in adults and children | Pediatrics |
| 6 | DR7.1 Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of dermatophytes in adults and children | Pediatrics |
| 7 | DR8.1 Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of common viral infections of the skin in adults and children | Pediatrics |
| 8 | PE31.4 Identify Atopic dermatitis and manage | Pediatrics |
| 9 | DR9.1 Classify describe the epidemiology etiology microbiology pathogenesis, clinical presentations and diagnostic features of Leprosy | General Medicine |
| 10 | DR9.2 Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination | General Medicine |
| 11 | DR9.4 Enumerate, describe and identify lepra reactions and supportive measures and therapy of lepra reactions | General Medicine |
| 12 | DR9.5 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines | General Medicine |
| 13 | DR9.6 Describe the treatment of Leprosy based on the WHO guidelines | General Medicine |
| 14 | DR9.7 Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma. | General Medicine |
| 15 | DR10.1 Identify and classify syphilis based on the presentation and clinical manifestations | General Medicine |
| 16 | DR10.2 Identify spirochete in a dark ground microscopy | General Medicine |
| 17 | DR10.3 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis | General Medicine |
| 18 | DR10.4 Describe the prevention of congenital syphilis | General Medicine |
| 19 | DR10.5 Counsel in a non-judgemental and empathetic manner patients on prevention of sexually transmitted disease | General Medicine |
| 20 | DR10.6 Describe the etiology, diagnostic and clinical features of non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) | General Medicine |

| | | |
|----|---|-----------------------------|
| 21 | DR10.7 Identify and differentiate based on the clinical features non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) | General Medicine |
| 22 | 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) | General Medicine |
| 23 | DR10.9 Describe the syndromic approach to ulcerative sexually transmitted disease | General Medicine |
| 24 | DR10.10 Describe the etiology, diagnostic and clinical features and management of gonococcal and non-gonococcal urethritis | General Medicine |
| 25 | DR11.1 Describe the etiology, pathogenesis and clinical features of the dermatologic manifestations of HIV and its complications including opportunistic infections | General Medicine |
| 26 | DR11.2 Identify and distinguish the dermatologic manifestations of HIV, its complications, opportunistic infections and adverse reactions | General Medicine |
| 27 | DR11.3 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for dermatologic lesions in HIV | General Medicine |
| 28 | DR12.7 Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions | General Medicine |
| 29 | DR16.1 Identify and distinguish skin lesions of SLE | General Medicine |
| 30 | DR16.2 Identify and distinguish Raynaud's phenomenon | General Medicine |
| 31 | DR17.1 Enumerate and identify the cutaneous findings in vitamin A deficiency | General Medicine/Pediatrics |
| 32 | DR17.2 Enumerate and describe the various skin changes in Vitamin B complex deficiency | General Medicine/Pediatrics |
| 33 | DR 17.3 Enumerate and describe the various changes in Vitamin C deficiency | General Medicine/Pediatrics |
| 34 | DR17.4 Enumerate and describe the various changes in Zinc deficiency | General Medicine/Pediatrics |
| 35 | DR18.1 Enumerate the cutaneous features of Type 2 diabetes | General Medicine |
| 36 | DR18.2 Enumerate the cutaneous features of hypo/hyper-thyroidism | General Medicine |
| 37 | DR15.3 Enumerate the indications and describe the pharmacology, indications and adverse reactions of topical and systemic drugs used in treatment of pyoderma | General Surgery |
| 38 | DR15.4 Enumerate the indications for surgical referral | General Surgery |

| | | |
|----|---|--------------------------|
| 39 | DR10.11 Describe the etiology, diagnostic and clinical features and management of vaginal discharge | Obstetrics & Gynaecology |
|----|---|--------------------------|

Assessment

Eligibility to appear for university examinations is dependent on fulfilling criteria in two main areas – attendance and internal assessment marks

Attendance

Attendance requirements are 75% in theory and 80% in clinical postings which will be added to General Medicine for eligibility to appear for the examinations.

Internal Assessment

There won't be separate internal assessment but 10% of total internal exams marks in general medicine should include questions from dermatology in consultation with department of Dermatology.

University examinations

Dermatology doesn't have a separate paper for third Professional Part II. But discipline of Dermatology, venereology and Leprosy (DVL) in combination with Psychiatry and Respiratory medicine including Tuberculosis should constitute 25% of theory marks in Paper II of General Medicine as separate section. So, 10% of questions must be incorporated from Dermatology in Paper II of General Medicine.

Marks allotted

| Dermatology | Theory |
|--------------------|-------------------------------------|
| Total marks | 8-10 marks |
| | Short answer question 2x3 = 6 marks |
| | MCQs 4x1=4 marks |

Clinical examination/ Practical's:

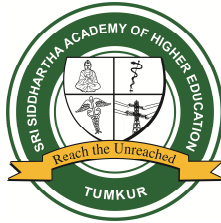
It is desirable to include one short cases in practical examination in General Medicine examination.

Acknowledgement of contributors

Dr Shashi Kumar BM, Associate Professor, Department of Dermatology, Mandya Institute of Medical Sciences.

Dr Deepadarshan K, Assistant professor in Department of Dermatology, Mandya Institute of Medical Sciences, Mandya for his contribution in preparation of this curriculum.

Sri Siddhartha Academy of Higher Education, Tumkur



Dermatology, Venereology & Leprosy

LOG BOOK

For Undergraduates

As Per

Competency-Based Medical Education Curriculum

NAME OF THE CANDIDATE :

NAME OF THE COLLEGE :

UNIVERSITY REGISTER NUMBER :

ACADEMIC YEAR :

BASIC PROFORMA OF THE STUDENT

Photo

PARTICULARS OF THE STUDENT:

Name of the student :

MBBS Batch :

Father's name :

Mother's name :

Roll No :

SSAHE Reg No :

Address :

Contact number :

Email-ID :

Signature of the student:.....

PREFACE

This booklet has been adopted from the book prepared by an Expert Group of IADVL Academy and complies with the “**Guidelines for preparing Logbook for Undergraduate Medical Education Program- 2019**” as per **CBME (Competency Based Medical Education) Guidelines- 2019**. It is for use by faculty members, institutions, and Universities to track and record the progress of an undergraduate student through the specified 18 competencies in Dermatology. The model logbook can be used as a guideline by Medical Colleges and Universities, and can be adapted / modified as per requirement.

These guidelines for recording logbook entries are recommended for the MBBS students from the academic year 2019-20 onwards. This model logbook is with an aim to create a standard protocol for documenting the achievement of competencies allotted to DVL as per the **Competency Based UG Curriculum (2018)** and the **Regulations on Graduate Medical Education, 2019, Part II**.

The Competency based curriculum places emphasis on acquisition of defined knowledge, skills, attitudes and values by the learner so as to be a capable physician of first contact in community. This logbook aims to document the acquisition of these milestones during the learner’s stay in the Department of Dermatology and STD. This logbook would be a verifiable record of the learner’s progression step-by-step. It has to be maintained as an essential document and filled in a timely manner, to enable progression to the next stage of learning.

Completion of specified activities, and submission of certified logbook is necessary for clearing Formative Assessment in Dermatology and STD. **Successful documentation and submission of the logbook should be a prerequisite for being allowed to take the final summative examination.**

Glossary of terms

1. **Number** of Competency- addressed as per Volume of the UG Curriculum e.g. DR2.1
2. **Name of the activity**- To specify seminar/ Live or Group discussion/ Session/ Clinical Interaction/ Demonstration etc.
3. **Date the activity gets completed**
4. **Attempt at each activity by the learner**
 - a. First attempt (or) only attempt
 - b. Repeat (R) of a previously done activity
 - c. Remedial activity (Re) based on the determination by the faculty
5. **Rating upon completion of activity**
 - a. Below expectations (B);
 - b. Meets expectations (M)
 - c. Exceeds expectations (E)
6. **Decision of faculty**
 - a. **C (closed)**: activity is completed, therefore closed. It can be certified, if needed.
 - b. **R (repeat)**: activity needs to be repeated without any further intervention.
 - c. **Re (remedial)**: activity needs remedial action (usually done after repetition did not lead to satisfactory completion)
7. Initials (Signature) of faculty indicating the completion or other determination
8. Initial (Signature) of the learner, if feedback has been received.

A numerical score may also be used if deemed necessary by the Department

Three posting of 2 weeks each as per GMER document. Competencies have been divided accordingly.

Method of teaching-learning advised.

Method of assessment advised.

INDEX

| Contents | Page Number |
|---|-------------|
| 11. BONAFIDE CERTIFICATE | |
| 12. GENERAL INFORMATION | |
| 13. PHASE II <ul style="list-style-type: none">• Competencies Requiring Certification• Clinical Case Presentation Record• Reflections | |
| 14. PHASE III PART 1 <ul style="list-style-type: none">• Competencies Requiring Certification• Clinical Case Presentation Record• Reflections | |
| 15. PHASE III PART 2 <ul style="list-style-type: none">• Competencies Requiring Certification• Clinical Case Presentation Record• Reflections | |
| 16. SCIENTIFIC PROJECT LIKE ICMR/PRESENTATIONS/ OUTREACH ACTIVITIES | |
| 17. ACHIVEMENETS | |
| 18. EXTRACURRICULAR ACTIVITIES | |
| 19. ASSESSMENT RECORD | |
| 20. ATTENDANCE EXTRACT | |
| 21. FINAL SUMMARY | |

(Name of Institution)

DEPARTMENT OF Dermatology, Venereology & Leprosy (DVL)

BONAFIDE CERTIFICATE

This is to certify that the candidate Reg No.....

has satisfactorily completed all requirements mentioned in this Logbook for undergraduates in DVL including related AETCOM modules as per the Competency-Based Undergraduate Medical Education Curriculum, Graduate Medical Regulation 2019.

He/ She is eligible to appear for the University assessment.

Faculty Incharge:

Head of Department:

Name:

Name:

Signature:

Signature:

Place:

Place:

Date:

Date:

2. GENERAL INSTRUCTIONS

- 1.** This logbook is a record of academic and other activities of the student during his/her designated clinical posting in the Department of DVL.
- 2.** Entries in the logbook reflect the activities undertaken by the student during the posting and are certified by the faculty.
- 3.** The student is responsible for maintaining his/her logbook regularly.
- 4.** The student is responsible for getting the logbook entries verified by concerned faculty regularly. They will not be signed/ verified/ certified after 15 days have elapsed after the end of posting.
- 5.** The logbook should be verified by the Head of Department before forwarding the application of the student for the University Examination. This is mandatory requirement for appearing for University Examinations
- 6.** The reflections should demonstrate the learning of the student that has taken place during the period of clinical posting. Please do not simply repeat the activities performed. A note on the learning experience, what was learnt and how it is going to be useful in the future, is expected. Reflections will be a useful document and assess learning for many competencies where formal assessment is not being done. Student needs to write academically useful reflections as per the prescribed format and within the time frame of the posting. These will be assessed by the teachers.

3. COMPETENCIES: PHASE II

B. Psychomotor Competencies that are required to be complete during the Clinical postings

| Competency Addressed | Date of completion | Suggested Activity |
|--|---------------------------|---|
| DR-A1: Identify and differentiate the primary, secondary and special skin lesions | | CASE PRESENTATION <i>Any of the following cases: Pediculosis, scabies, herpes labialis, herpes zoster and varicella, viral warts, molluscum contagiosum, folliculitis impetigo and carbuncle, Leprosy, Psoriasis, Tinea.</i> |
| DR-A3: Elicit and present medical history of a common dermatology case | | |
| DR-A2: Present and describe basics of dermatological examination of a common dermatology case. | | |
| DR5.2: Identify and differentiate scabies from other lesions in adults and children | | |
| DR6.2: Identify and differentiate pediculosis from other skin lesions in adults and children | | |
| DR8.2: Identify and distinguish herpes simplex and herpes labialis from other skin lesions | | |
| DR8.3: Identify and distinguish herpes zoster and varicella from other skin lesions | | |
| DR8.4: Identify and distinguish viral warts from other skin lesions | | |
| DR8.5: Identify and distinguish molluscum contagiosum from other skin lesions | | |
| DR8.6: Enumerate the indications, describe the procedure and perform a Tzanck smear | | |
| DR15.1: Identify and distinguish folliculitis impetigo and carbuncle from other skin lesions | | |
| | | |
| DR 7.2 Identify candida species in fungal scrapings and KOH mount | | In the side laboratory observe each at least once |
| DR 10.2 Identify spirochete in a dark ground microscopy | | |
| DR 15.2 Identify staphylococcus on a gram stain | | |

Phase II

CLINICAL CASE PRESENTATION RECORD

Summary of Clinical Case Presentations/Spotters*

(*Departments may create/continue with a case record book for documentation of cases)

At least 3 cases per clinical posting

[illegible]

Phase II
REFLECTIONS: CLINICAL CASE PRESENTATION

(Students should preferably reflect on cases which they themselves have presented):
At least one Reflection per Clinical Posting

Phase II

| | | | | |
|----------------------|--------------|---------|-----------|------|
| Serial Number | Patient Name | Age/Sex | Diagnosis | Date |
| Student Presenter | | | | |
| What Happened? | | | | |
| So What? | | | | |
| What Next? | | | | |
| Signature of Faculty | | | Date | |

Phase II
End of posting Assessment

Suggested Methods

- 5. Viva Voce**
- 6. CA-OSCE / OSCE / OSPE**
- 7. Bedside assessment**
- 8. Communication skill (Counselling)**
- 9. Psychomotor skill- Smear preparation, slide preparation, speculum examination**

| Date | Marks obtained | Total Marks | Feedback Student | Feedback Faculty |
|------|----------------|-------------|------------------|------------------|
| | | | | |

Phase III Part 1

CLINICAL CASE PRESENTATION RECORD

Summary of Clinical Case Presentations/Spotters*

(*Departments may create/continue with a case record book for documentation of cases)

At least 3 cases per clinical posting

[illegible]

Phase III Part 1
REFLECTIONS: CLINICAL CASE PRESENTATION

(Students should preferably reflect on cases which they themselves have presented):

At least one Reflection per Clinical Posting

Phase II

| | | | | |
|----------------------|--------------|---------|-----------|------|
| Serial Number | Patient Name | Age/Sex | Diagnosis | Date |
| Student Presenter | | | | |
| What Happened? | | | | |
| So What? | | | | |
| What Next? | | | | |
| Signature of Faculty | | | Date | |

Phase III Part 1
End of posting Assessment

Suggested Methods

10. Viva Voce

11. CA-OSCE / OSCE / OSPE

12. Bedside assessment

13. Communication skill (Counselling)

14. Psychomotor skill- Smear preparation, slide preparation, speculum examination

| Date | Marks obtained | Total Marks | Feedback Student | Feedback Faculty |
|------|----------------|-------------|------------------|------------------|
| | | | | |

Phase III Part II

CLINICAL CASE PRESENTATION RECORD

Summary of Clinical Case Presentations/Spotters*

(*Departments may create/continue with a case record book for documentation of cases)

At least 3 cases per clinical posting

[illegible]

REFLECTIONS: CLINICAL CASE PRESENTATION

(Students should preferably reflect on cases which they themselves have presented):

At least one Reflection per Clinical Posting

Phase III Part 2

| | | | | |
|----------------------|--------------|---------|-----------|------|
| Serial Number | Patient Name | Age/Sex | Diagnosis | Date |
| Student Presenter | | | | |
| What Happened? | | | | |
| So What? | | | | |
| What Next? | | | | |
| Signature of Faculty | | | Date | |

End of posting Assessment

Suggested Methods

- 1. Viva Voce**
- 2. CA-OSCE / OSCE / OSPE**
- 3. Bedside assessment**
- 4. Communication skill (Counselling)**
- 5. Psychomotor skill- Smear preparation, slide preparation, speculum examination**

| Date | Marks obtained | Total Marks | Feedback Student | Feedback Faculty |
|------|----------------|-------------|------------------|------------------|
| | | | | |

6. SCIENTIFIC PROJECT PRESENTATIONS/REPORTS/OUTREACH ACTIVITIES/UG QUIZ

| SL NO | DATE | PARTICULARS | SIGNATURE OFSTAFF |
|-------|------|-------------|-------------------|
| | | | |
| | | | |
| | | | |
| | | | |

7. EXTRACURRICULAR ACTIVITIES

| Sl no | Date | Particulars | Signature of the faculty |
|-------|------|-------------|--------------------------|
| | | | |
| | | | |
| | | | |
| | | | |

8. ACHIEVEMENTS/AWARDS

| Sl no | Date | Particulars | Signature of the faculty |
|-------|------|-------------|--------------------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

9. ASSESSMENT RECORD

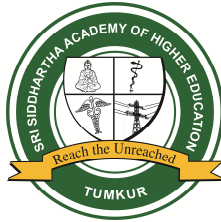
| Phase | Duration (From-To) | Assessment score (marks obtained) | Total marks | Assessment (%) | Remarks | Faculty Signature |
|------------------|--------------------|-----------------------------------|-------------|----------------|---------|-------------------|
| Phase II | | | | | | |
| Phase III Part I | | | | | | |

| | | | | | | |
|---------------------|--|--|--|--|--|--|
| Phase III Part 2 | | | | | | |
| Total | | | | | | |

10. SUMMARY OF ATTENDANCE

| Rotation | Phase | Duration (Weeks) | From | To | Total classes held | Number of classes attended | Faculty Signature |
|-----------------|----------------------|---------------------|------|----|--------------------------|----------------------------------|----------------------|
| 1 st | Phase II | 2 weeks | | | | | |
| 2 nd | Phase III Part I | 2 weeks | | | | | |
| 3 rd | Phase III Part II | 2 weeks | | | | | |
| Total | | | | | | Cumulative attendance n/% | |

Sri Siddhartha Academy of Higher Education, Tumkur



General Surgery Curriculum

For

Competency Based Curriculum

SSAHE General Surgery Curriculum as per the new Competency Based Curriculum

Preamble

The NMC envisages that the Indian Medical Graduate should function as the Physician of first contact in the community, to provide holistic health care to the evolving needs of the nation and the world. To fulfil this, the IMG should be able to perform the following roles: a clinician, a communicator, a lifelong learner, a professional and a team leader.

Competency-based medical education (CBME) is an outcomes-based training model that has become the new standard of medical education internationally. This new curriculum is being implemented across the country and the first batch has been enrolled since the academic year 2019. The regulatory and accrediting body NMC had started the process by training faculty across the country in the key principles of CBME and developing key competencies for each specialty with the input from expert groups under each specialty.

The NMC, in the Graduate medical regulations 2019, has provided the list of General Surgery medicine competencies required for an IMG and these have been included in this document.

The document begins with the goals and objectives of the Surgery curriculum, then a summary of phase wise hours allotted to general surgery and their distribution across didactic lecture, small group discussion and self-directed learning. Subsequently, this document suggests phase wise topics in the 4 clinical postings, directory of minimum cases to be seen, and suggested clinical assessment methods for the postings.

This is followed by the competencies to be delivered, along with the SLOs, suggested TL methods, and suggested assessment methods. The competencies have been divided according to the three main domains which are Knowledge, Psychomotor skills and Communication skills. The competency tables also indicate the phase they should be taught in. This will be helpful for the faculty and students.

Goals and Objectives of the medicine curriculum

Goals

The broad goal of the General Surgery curriculum is to equip the IMG with sufficient knowledge, skills and attitude to diagnose and appropriately treat common surgical disorders affecting the adult population.

Objectives

A) Knowledge

At the end of the course student should be able to:

- f. Describe the pathophysiology of common diseases of adults
- g. Describe the clinical features, diagnosis and management of the above
- c. Be well versed with the preventive aspects of the surgery curriculum, specifically patient education and lifestyle modification.

(B) Skills

At the end of the course the student should be able to:

- d. Demonstrate the ability to elicit a detailed clinical history and perform a general physical and systemic examination, in outpatient and inpatient settings.
- e. Demonstrate the ability to apply the elicited history and examination to arrive at correct diagnosis and plan treatment.
- f. Demonstrate the ability to deliver immediate care to commonly seen emergencies prior to referral to higher centre.

C) Attitude and communication skills

At the end of the course the student should be able to:

- i. Communicate effectively with patients, their families and the public at large
- j. Communicate effectively with peers and teachers demonstrate the ability to work effectively with peers in a team.
- k. Demonstrate professional attributes of punctuality, accountability and respect for teachers and peers.
- l. Appreciate the issues of equity and social accountability

Summary of course content, teaching and learning methods and student assessment for the undergraduate (MBBS) Curriculum in General Surgery

Distribution of Teaching hours :

| Phase | Lecture | Small group discussion | Self-directed learning | Total |
|-----------------|---------|------------------------|------------------------|-------|
| Phase 2 | 25 | | | 25 |
| Phase 3, part 1 | 25 | 35 | 5 | 65 |
| Phase 3, part 2 | 70 | 125 | 15 | 210 |

Time allotted excludes time reserved for internal / University examinations, and vacation.

Teaching-learning methods shall be learner centric and shall predominantly include small group learning, interactive teaching methods and case-based learning. Didactic lectures not to exceed one-third of the total teaching time. In the third Professional year both Part1& Part2, 25% of allotted time (non-clinical time) shall be utilized for integrated learning with pre- and para- clinical subjects. This will be included in the assessment of clinical subjects. Horizontal integration between the Final MBBS Part 2 subjects is necessary wherever feasible

The teaching learning activity focus should be on application of knowledge rather than acquisition of knowledge.

The curricular contents shall be vertically and horizontally aligned and integrated to the maximum extent possible to enhance learner’s interest and eliminate redundancy and overlap.

Small group discussion (SGD) may include the following

- 1.Tutorials
- 2.Case based discussion
- 3. Skill lab sessions

Unless otherwise mentioned, in the TL methods suggested in the competency table, SGD sessions are for 2 hours, and lectures for 1 hour and skill lab sessions are for 4 hours

Suggested Topics for Theory classes for each MBBS Phase

| 2 nd MBBS | |
|----------------------|------------------------------|
| Competency number | Topic |
| SU1 | Metabolic response to injury |
| SU2 | Shock |
| SU3 | Blood and blood components |
| SU4 | Burns |

| | |
|-----------------------------------|---|
| SU8 | Ethics |
| SU10 | Pre-op, intra-op and post-op care |
| SU12 | Nutrition and fluid therapy |
| SU18 | Skin and subcutaneous tissue |
| SU27 | Vascular disorders |
| 3rd MBBS Part 1 | |
| Competency number | Topic |
| SU5 | Wound healing and wound care |
| SU6 | Surgical infections |
| SU7 | Surgical audit and research |
| SU11 | Anaesthesia and pain management |
| SU14 | Basic surgical skills |
| SU17 | Trauma |
| SU19 | Congenital facial anomalies |
| SU20 | Oropharyngeal carcinoma |
| SU21 | Salivary Gland |
| SU22 | Thyroid gland and Adrenal gland |
| SU 23 | Adrenal glands and other endocrine glands |
| SU25 | Breast |
| 3rd MBBS Part 2 | |
| Competency number | Topic |
| SU13 | Transplantation |
| SU15 | Biohazard disposal |
| SU16 | Minimally invasive surgery |
| SU24 | Pancreas |
| SU26 | Cardio thoracic surgery |
| SU28 | Abdomen |
| SU29 | Urinary system |
| SU30 | Male reproductive system |
| | Neurosurgery |

Clinical posting, certifiable skills, case matrix, clinical skills assessment , clerkship , skill lab topics

Acquisition and certification of skills shall be through experiences in patient care, diagnostic and skill laboratories. Use of skill lab to train undergraduates in listed skills should be done mandatorily.

The clinical postings in the second professional shall be 15 hours per week (3 hrs per day from Monday to Friday)

The clinical postings in the third professional part II shall be 18 hours per week (3 hrs per day from Monday to Saturday)

Acquisition and certification of skills shall be through bedside clinics, clerkship (student doctor), diagnostic and skill laboratories.

Clinical postings – phase wise objectives

Posting 1: The student , at the end of the posting, would have practiced the following

- A. Building a rapport with the patient
 - B. Eliciting history in native language of patient
 - C. Examining vital signs – pulse, blood pressure, temperature, jugular venous pressure
 - D. General physical examination – pallor, icterus, cyanosis, lymphadenopathy, edema
 - E. Observation of systemic examination

Posting 2

- A. Practice of skills attained in posting 1
- B. Systemic examination (inspection, palpation, percussion, auscultation) of cardiovascular system, respiratory system, abdomen, and central nervous system

Posting 3

- A. Practice of skills attained in posting 1 and 2
- B. Fluent, confident systemic examination
- C. Ability to distinguish between normal and abnormal physical findings
- D. Collating history and examination findings to arrive at differential diagnoses

Posting 4

Practice and refinement of skills attained in postings 1, 2 and 3

Suggested topics for Clinical postings for each MBBS Phase

| | | |
|---|--------------------------------------|--|
| 1st posting - 2nd MBBS, (4 weeks) | | |
| 1 | History taking in a surgical patient | |
| 2 | Examination of ulcer | |
| 3 | Clinical examination of a swelling | |

| | | |
|--|---|--|
| 4 | Examination of abdomen | |
| 5 | Examination of the vascular system | |
| 6 | Examination of the lymphatic system | |
| 7 | Hand wash and draping patients in OT | |
| 8 | Basic instruments in surgical operation theatre | |
| 2nd Posting 3rd MBBS Part 1 (4weeks) | | |
| 1 | Wound care | |
| 2 | BLS | |
| 3 | Airway maintenance | |
| 4 | Thyroid examination | |
| 5 | Breast examination | |
| 6 | Examination of Abdomen | |
| 7 | Hernia | |
| 8 | Disorders of Stomach | |
| 9 | Submandibular region and salivary glands | |
| 9 | Revise and review all topics in 1 st posting | |
| 3rd and 4th Posting 3rd MBBS Part 2 (8+4weeks) | | |
| 1 | Investigations in a surgical patient | |
| 2 | Pre-op and post-op care | |
| 3 | Anaesthesia and pain management | |
| 4 | Transplant | |
| 5 | Revisit, review and revise all topics in 1 st and 2 nd postings | |

Suggested topics for Skills lab in Surgery

| | |
|--|---|
| | To perform breast examination |
| | To perform per rectal examination to palpate the prostate |

| | |
|--|---|
| | To administer an appropriate dose of local anaesthetic and incise and drain abscess |
| | To appropriately apply dressing for injuries and burns |
| | To clean and suture superficial skin wounds |
| | To insert an intercostal needle/drainage |

Learner-doctor method (Clerkship): should be mandatorily implemented, from 1st clinical postings in Surgery.

The goal of this type of T-L activity is to provide learners with experience in longitudinal patient care, being part of the health care team, and participate in hands-on care of patients in outpatient and inpatient setting. During the 1st clinical postings, the students are oriented to the working of the department. During the subsequent clinical posting the students are allotted patients, whom they follow-up through their stay in the hospital, participating in that patient’s care including case work-up, following-up on investigations, presenting patient findings on rounds, observing surgeries if any till patient is discharged.

Goal: To provide learners with experience in:

- (a) Longitudinal patient care,
- (b) Being part of the health care team,
- (c) Hands-on care of patients in outpatient and inpatient setting.
- (d) No learner will be given independent charge of the patient
- (e) The supervising physician will be responsible for all patient care decisions

The learner will function as a part of the health care team with the following responsibilities:

- Be part of the unit’s outpatient services on admission days, Remain with the admission unit until 6 PM except during designated class hours,
- Be assigned patients admitted during each admission day for whom he/she will undertake responsibility, under the supervision of a senior resident or faculty member,
- Participate in the unit rounds on its admission day and will present the assigned patients to the supervising physician,

Perform simple tasks, including nebulisation, patient education

Follow the patient’s progress throughout the hospital stay until discharge,

Participate, under supervision, in procedures, surgeries, deliveries etc. of assigned patients

Participate in unit rounds on at least one other day of the week excluding the admission day, Discuss ethical and other humanitarian issues during unit rounds, Attend all scheduled classes and educational activities, Document his/her observations in a prescribed log book / case record.

Learner-doctor method phase wise

| Year of Curriculum | Focus of Learner - Doctor programme |
|--------------------|--|
| Year 1 | Introduction to hospital environment, early clinical exposure, understanding perspectives of illness |
| Year 2 | History taking, physical examination, assessment of change in clinical status, communication and patient education |
| Year 3 | All of the above and choice of investigations, basic procedures and continuity of care |
| Year 4 | All of the above and decision making, management and outcomes |

Eligibility to appear for Professional examinations

(b) Attendance

- 1. Attendance requirements are 75% in theory and 80% in practical /clinical for eligibility to appear for the examinations in that subject. In subjects that are taught in more than one phase – the learner must have 75% attendance in theory and 80% in practical in each phase of instruction in that subject.
- 2. If an examination comprises more than one subject (for e.g., General Surgery and allied branches), the candidate must have 75% attendance in each subject and 80% attendance in each clinical posting.
- 3. Learners who do not have at least 75% attendance in the electives will not be eligible for the Third Professional - Part II examination.

Internal Assessment

Progress of the medical learner shall be documented through structured periodic assessment that includes formative and summative assessments. Logs of skill-based training shall be also maintained.

Log book

- 4. A designated faculty member in each unit will coordinate and facilitate the activities of the learner, monitor progress, provide feedback and review the log book/ case record.
- 5. The log book/ case record must include the written case record prepared by the learner including relevant investigations, treatment and its rationale, hospital course, family and patient discussions, discharge summary etc.
- 6. The log book should also include records of patients assigned. Submission of the log book/ case record to the department is required for eligibility to appear for the final examination of the subject.

Theory assessment

There shall be no less than four theory internal assessment (One each in 2nd MBBS and 3rd MBBS Part1 and Two in 3rd MBBS Part2) excluding the prelims in Surgery. An end of posting clinical assessment shall be conducted for each of the clinical postings in Surgery.

A 100-mark question paper covering the relevant topics of the MBBS Phase may be conducted. Mark division will be as follows:

| |
|------------------------------------|
| 100 marks |
| Long essay 2X10= 20 |
| Short essay 6x5=30 marks |
| Short answer question 10x3=30marks |
| MCQs 20x1=20marks |

A minimum of 80% of the marks should be from the must know component of the curriculum. A maximum of 20% can be from the desirable to know component. All main essay questions to be from the must know component of the curriculum.

One main essay question to be of the modified variety containing a clinical case scenario. At least 30% of questions should be clinical case scenario based. Questions to be constructed to test higher cognitive levels.

Internal assessment at the end of clinical postings

Internal assessment marks at the end of each posting will be a sum of log book (documentation of skills practiced, clerkship, assessment of behaviour in posting) and clinical internal assessment marks. Internal assessment may be conducted as follows in postings

Posting 1 – long case focusing on history, vital signs and general physical examination

Posting 2 – OSCE with the following stations – history, vital signs, general physical examination, examination of specific system/structure, diagnostic skills, communication

Posting 3 – Long case/short case

Posting 4 – short case and/or long case

AETCOM assessment will include: (a) Written tests comprising of short notes and creative writing experiences, (b) OSCE based clinical scenarios / viva voce

The competencies to be delivered in AETCOM have been summarized at the end of the competency table. The question paper must include a least one question based on AETCOM competencies covered in that phase. AETCOM competencies must also be tested in the viva voce.

There will be one Theory and Clinical preliminary exam before the student is eligible for university exams.
Day to day records and logbook (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills. Learners must secure at least 50% marks of the total marks (combined in theory and clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in Surgery to be eligible for appearing at the final University examination.
Internal assessment marks will reflect as separate head of passing at the summative examination.
The results of internal assessment should be displayed on the notice board within 1-2 weeks of the test.
Remedial measures should be offered to students who are either not able to score qualifying marks or have missed on some assessments due to any reason.
Learners must have completed the required certifiable competencies for that phase of training and Medicine logbook entry completed to be eligible for appearing at the final university examination.

University examinations

University examinations Third Professional Part II - (Final Professional) examination shall be at the end of training (14 months including 2 months of electives) in the subjects of General Medicine, General Surgery, Obstetrics & Gynaecology and Paediatrics.
The discipline of Orthopaedics, Anaesthesiology, Dentistry and Radiodiagnosis will constitute 25% of the total theory marks incorporated as a separate section in paper II of General Surgery.
The discipline of Psychiatry and Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis will constitute 25% of the total theory marks in General Medicine incorporated as a separate section in paper II of General Medicine.
University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimal level of skills, ethical and professional values with clear concepts of the fundamentals which are necessary for him/her to function effectively and appropriately as a physician of first contact. Assessment shall be carried out on an objective basis to the extent possible.

Marks allotted

| Medicine | Theory | Clinical examination |
|-------------|---|----------------------|
| Total marks | 2 papers of 100 marks each for General surgery (including orthopaedics and other surgery allied subjects). The pattern of each question paper is given below. As indicated above adequate | 200 marks |

| | | |
|--|--|---|
| | weightage to be given to surgery allied subjects | |
| | Long essay 2X10= 20 | One long case for 80 marks |
| | Short essay 6x5=30 marks | Two short cases for 40 marks each |
| | Short answer question 10x3=30marks | Viva-voce for 40 marks. Station-1: Xray & ECG Station-2: Instruments Station-3: Specimens Station-4: Drugs & case scenarios |
| | MCQs 20x1=20marks | |

The theory paper should include different types such as structured essays, short essays, Short Answers Questions (SAQ) and MCQs (Multiple Choice Questions). Marks for each part should be indicated separately.

A minimum of **80%** of the marks should be from the **must know** component of the curriculum. A maximum of **20%** can be from the **desirable to know** component. All **main essay questions** to be from the **must know component** of the curriculum.

One main essay question to be of the **modified variety** containing a clinical case scenario. At least 30% of questions should be clinical case scenario based. Questions to be constructed to test higher cognitive levels.

Clinical examinations will be conducted in the hospital wards. Clinical cases kept in the examination must be of common conditions that the learner may encounter as a physician of first contact in the community. Selection of rare syndromes and disorders as examination cases is to be discouraged. Emphasis should be on candidate's capability to elicit history, demonstrate physical signs, write a case record, analyse the case and develop a management plan.

Viva/oral examination should assess approach to patient management, emergencies, attitudinal, ethical, and professional values. Candidate's skill in interpretation of common investigative data, X-rays, identification of specimens, ECG, etc. is to be also assessed.

At least one question in each paper of the clinical specialties in the University examination should test knowledge competencies acquired during the professional development programme. Skill competencies acquired during the Professional Development Programme must be tested during the clinical, practical and viva voce.

There shall be one main examination in an academic year and a supplementary to be held not later than 90 days after the declaration of the results of the main examination.

Pass criteria

Internal Assessment: 50% combined in theory and practical (not less than 40% in each) for eligibility for appearing for University Examinations

University Examination: Mandatory 50% marks separately in theory and clinicals (clinicals = clinical + viva)

The grace marks up to a maximum of five marks may be awarded at the discretion of the University to a learner for clearing the examination as a whole but not for clearing a subject resulting in exemption.

Appointment of Examiners

Person appointed as an examiner in the subject must have at least four years of total teaching experience as assistant professor after obtaining postgraduate degree in the subject in a college affiliated to a recognized/approved/permitted medical college.

For the Practical/ Clinical examinations, there shall be at least four examiners for 100 learners, out of whom not less than 50% must be external examiners. Of the four examiners, the senior-most internal examiner will act as the Chairman and coordinator of the whole examination programme so that uniformity in the matter of assessment of candidates is maintained. Where candidates appearing are more than 100, two additional examiners (one external & one internal) for every additional 50 or part there of candidates appearing, be appointed. All eligible examiners with requisite qualifications and experience can be appointed as internal examiners by rotation External examiners may not be from the same University. There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions. All theory paper assessment should be done as central assessment program (CAP) of concerned university.

BLUEPRINT FOR ASSESSMENT

RATIONALE BEHIND THE BLUEPRINTING WITH EXCERPTS FROM NMC DOCUMENT ON ASSESSMENT

As per NMC guidelines, a balance should be drawn between the action verbs which are specified in the Bloom’s taxonomy along with a balance of the topics of the curriculum

Levels of Bloom’s Taxonomy with Suggested Verbs in the questions are specified below.

| | |
|----------------------|---|
| Knowledge | Define, Describe, Draw, Find, Enumerate, Cite, Name, Identify, List, label, Match, Sequence, Write, State |
| Comprehension | Discuss, Conclude, Articulate, Associate, Estimate, Rearrange, Demonstrate understanding, Explain, Generalise, Identify, Illustrate, Interpret, Review, Summarise |
| Application | Apply, Choose, Compute, Modify, Solve, Prepare, Produce, Select, Show, Transfer, Use |
| Analysis | Analyse, Characterise, Classify, Compare, Contrast, Debate, Diagram, Differentiate, Distinguish, Relate, Categorise |
| Synthesis | Compose, Construct, Create, Verify, Determine, Design, Develop, Integrate, Organise, Plan, Produce, Propose, rewrite |

| | |
|-------------------|--|
| Evaluation | Appraise, Assess, Conclude, Critic, Decide, Evaluate, judge, Justify, Predict, Prioritise, Prove, Rank |
|-------------------|--|

The blueprint for General surgery theory paper indicating the topics and marks allotted for each are given below. The blueprinting provided is an estimate only, the spirit of the blueprint must be honoured while setting the paper. This document will guide teachers/ students and evaluators on what to focus on. The focus should be on providing clinical oriented questions rather than purely theoretical questions

The distribution of topics in paper 1 and paper 2 in General surgery is also given below. The given division of topics is only a guideline, as the topics are often a continuum, making clear demarcation difficult.

Blue print for General surgery

| Competency number | Topic | Marks |
|-------------------|---|-------|
| | Applied basic sciences | 6 |
| SU1 | Metabolic response to injury | 2 |
| SU2 | Shock + its management | 5 |
| SU3 | Blood and blood components | 4 |
| SU4 | Burns | 4 |
| SU5 | Wound healing and wound care | 5 |
| SU6 | Surgical infections | 5 |
| SU7 +SU8 | Surgical audit and research+ Ethics | 2 |
| SU19 | Congenital facial anomalies | 2 |
| SU20 | Oropharyngeal carcinoma | 3 |
| SU21 | Salivary Gland+ neck cysts+ cervical lyphadenitis | 4 |
| | Skin lesions including ulcers, sinuses, fistulas and malignancies | 5 |
| SU9 | Investigations in a surgical patient | 5 |
| SU10 | Pre-op, intra-op and post-op care | 6 |
| SU12 | Nutrition and fluid therapy | 5 |
| SU13 | Transplantation | 4 |
| SU14 | Basic surgical skills | 3 |

| | | |
|--------------|---|------------|
| SU15 | Biohazard disposal | 2 |
| SU16 | Minimally invasive surgery | 5 |
| SU17 | Trauma | 5 |
| SU22 | Thyroid gland | 6 |
| SU 23 | Adrenal glands and other endocrine glands | 4 |
| SU24 | Pancreas | 5 |
| SU25 | Breast | 8 |
| SU26 | Cardio thoracic surgery and Neurosurgery | 7 |
| SU27 | Vascular system | 10 |
| SU28 | Abdomen including hernias | 12 |
| SU29 | Urinary system | 10 |
| SU30 | Male reproductive system | 6 |
| Total | | 150 |

Distribution of topics In General surgery Paper 1 and Paper 2 for University Examination

| Paper 1 – Section A and B 100marks | | |
|---|--|--|
| 1 | Applied basic sciences | |
| 2 | Metabolic response to injury | |
| 3 | Shock + its management | |
| 4 | Blood and blood components | |
| 5 | Burns | |
| 6 | Wound healing and wound care | |
| 7 | Surgical infections | |
| 8 | Surgical audit and research+ Ethics | |
| 9 | Congenital facial anomalies | |
| 10 | Oropharyngeal carcinoma | |
| 11 | Salivary Gland+ neck cysts+ cervical lyphadenitis | |
| 12 | Skin lesions including ulcers, sinus, fistulas and malignancies | |
| 13 | Investigations in a surgical patient | |
| 14 | Pre-op, intra-op and post-op care | |

| | | |
|--|---|--|
| 15 | Nutrition and fluid therapy | |
| 17 | Transplantation | |
| 18 | Basic surgical skills | |
| 19 | Biohazard disposal | |
| 20 | Minimally invasive surgery | |
| 21 | Trauma | |
| 22 | Thyroid gland | |
| 23 | Adrenal glands and other endocrine glands | |
| 24 | Breast | |
| Paper 2 – Section A 50marks | | |
| 1 | Pancreas | |
| 2 | Cardio thoracic surgery and neurosurgery | |
| 3 | Vascular system | |
| 4 | Abdomen including hernias | |
| 5 | Urinary system | |
| 6 | Male reproductive system | |
| Paper 2 – Section B 50marks, Orthopedics and surgery allied subjects Anaesthesia, Radiology and dentistry | | |

Surgery competencies – Knowledge

| | | | | | |
|-------------------------------------|--|---------|-----------|--------------------|--------|
| Metabolic response to injury | | | | | |
| SU1.1 | Describe Basic concepts of homeostasis, enumerate the metabolic changes in injury and their mediators. | Lecture | 3, 4 term | MCQs, Quiz, Drills | Theory |

| | | | | | |
|-------------------------------------|---|---------|-----------|------|--------|
| SU1.2 | Describe the factors that affect the metabolic response to injury. | Lecture | 3, 4 term | Quiz | Theory |
| SU1.3 | Describe basic concepts of perioperative care. | Lecture | 3, 4 term | Quiz | Theory |
| Shock | | | | | |
| SU2.1 | Describe Pathophysiology of shock, types of shock & principles of resuscitation including fluid replacement and monitoring. | Lecture | 3, 4 term | Quiz | Theory |
| SU2.2 | Describe the clinical features of shock and its appropriate treatment. | Lecture | 3, 4 term | Quiz | Theory |
| Blood and blood components | | | | | |
| SU3.1 | Describe the Indications and appropriate use of blood and blood products and complications of blood transfusion. | Lecture | 3, 4 term | Quiz | Theory |
| Burns | | | | | |
| SU4.1 | Elicit document and present history in a case of Burns and perform physical examination. Describe Pathophysiology of Burns. | Lecture | 3, 4 term | Quiz | Theory |
| SU4.2 | Describe Clinical features, Diagnose type and extent of burns and plan appropriate treatment. | Lecture | 3, 4 term | Quiz | Theory |
| SU4.3 | Discuss the Medicolegal aspects in burn injuries. | Lecture | 3, 4 term | Quiz | Theory |
| Wound healing and wound care | | | | | |
| SU5.1 | Describe normal wound healing and factors affecting healing. | Lecture | 5 term | Quiz | Theory |
| SU5.3 | Differentiate the various types of wounds, plan and observe management of wounds. | Lecture | 5 term | Quiz | Theory |
| SU5.4 | Discuss medico legal aspects of wounds | Lecture | 5 term | Quiz | Theory |
| Surgical infections | | | | | |
| SU6.1 | Define and describe the aetiology and pathogenesis of surgical Infections | Lecture | 5 term | Quiz | Theory |
| SU6.2 | Enumerate Prophylactic and therapeutic antibiotics | Lecture | 5 term | Quiz | Theory |
| Surgical Audit and Research | | | | | |

| | | | | | |
|---|--|---------|-----------|--------|--------|
| SU7.1 | Describe the Planning and conduct of Surgical audit | Lecture | 8,9 ter, | Theory | Theory |
| SU7.2 | Describe the principles and steps of clinical research in General Surgery | Lecture | 8,9 term | Theory | Theory |
| Ethics | | | | | |
| SU8.1 | Describe the principles of Ethics as it pertains to General Surgery | Lecture | 3, 4 term | Quiz | Theory |
| Pre, intra and post- operative management. | | | | | |
| SU10.1 | Describe the principles of perioperative management of common surgical procedures | Lecture | 3,4 term | Quiz | Theory |
| Anaesthesia and pain management | | | | | |
| SU11.1 | Describe principles of Preoperative assessment. | Lecture | 6 term | Theory | Theory |
| SU11.2 | Enumerate the principles of general, regional, and local Anaesthesia. | Lecture | 6 term | Theory | Theory |
| SU11.4 | Enumerate the indications and principles of day care General Surgery | Lecture | 6 term | Theory | Theory |
| SU11.5 | Describe principles of providing post-operative pain relief and management of chronic pain. | Lecture | 6 term | Theory | Theory |
| SU11.6 | Describe Principles of safe General Surgery | Lecture | 6 term | Theory | Theory |
| Nutrition and fluid therapy | | | | | |
| SU12.1 | Enumerate the causes and consequences of malnutrition in the surgical patient | Lecture | 3, 4 term | Quiz | Theory |
| SU12.2 | Describe and discuss the methods of estimation and replacement of the fluid and electrolyte requirements in the surgical patient | Lecture | 3, 4 term | Quiz | Theory |
| SU12.3 | Discuss the nutritional requirements of surgical patients, the methods of providing nutritional support and their complications | Lecture | 3, 4 term | Quiz | Theory |
| Transplantation | | | | | |
| SU13.1 | Describe the immunological basis of organ transplantation | Lecture | 8, 9 term | Theory | Theory |

| | | | | | |
|---|---|---------|-----------|--------|--------|
| SU13.2 | Discuss the Principles of immunosuppressive therapy. Enumerate Indications, describe surgical principles, management of organ transplantation | Lecture | 8, 9 term | Theory | Theory |
| SU13.3 | Discuss the legal and ethical issues concerning organ donation | Lecture | 8, 9 term | Theory | Theory |
| Basic Surgical Skills | | | | | |
| SU14.1 | Describe Aseptic techniques, sterilization and disinfection. | Lecture | 5 term | Quiz | Theory |
| SU14.2 | Describe Surgical approaches, incisions and the use of appropriate instruments in Surgery in general. | Lecture | 5 term | Quiz | Theory |
| SU14.3 | Describe the materials and methods used for surgical wound closure and anastomosis (sutures, knots and needles) | Lecture | 5 term | Quiz | Theory |
| Biohazard disposal | | | | | |
| SU15.1 | Describe classification of hospital waste and appropriate methods of disposal. | Lecture | 9 term | Quiz | Theory |
| Minimally invasive General Surgery | | | | | |
| SU16.1 | Minimally invasive General Surgery: Describe indications advantages and disadvantages of Minimally invasive General Surgery | Lecture | 8, 9 term | Theory | Theory |
| Trauma | | | | | |
| SU17.3 | Describe the Principles in management of mass casualties | Lecture | 5 term | Quiz | Theory |
| SU17.4 | Describe Pathophysiology, mechanism of head injuries | Lecture | 5 term | Quiz | Theory |
| SU17.5 | Describe clinical features for neurological assessment and GCS in head injuries | Lecture | 5 term | Quiz | Theory |
| SU17.6 | Chose appropriate investigations and discuss the principles of management of head injuries | Lecture | 5 term | Quiz | Theory |
| SU17.7 | Describe the clinical features of soft tissue injuries. Chose | Lecture | 5 term | Quiz | Theory |

| | | | | | |
|---|--|---------|--------|--------|--------|
| | appropriate investigations and discuss the principles of management. | | | | |
| SU17.8 | Describe the pathophysiology of chest injuries. | Lecture | 5 term | Quiz | Theory |
| SU17.9 | Describe the clinical features and principles of management of chest injuries. | Lecture | 5 term | Quiz | Theory |
| Skin and subcutaneous tissue | | | | | |
| SU18.1 | Describe the pathogenesis, clinical features and management of various cutaneous and subcutaneous infections. | Lecture | 4 term | Quiz | Theory |
| SU18.2 | Classify skin tumors Differentiate different skin tumors and discuss their management. | Lecture | 4 term | Quiz | Theory |
| Developmental anomalies of face, mouth and jaws | | | | | |
| SU19.1 | Describe the etiology and classification of cleft lip and palate | Lecture | 6 term | Theory | Theory |
| SU19.2 | Describe the Principles of reconstruction of cleft lip and palate | Lecture | 6 term | Theory | Theory |
| Oropharyngeal cancer | | | | | |
| SU20.1 | Describe etiopathogenesis of oral cancer symptoms and signs of oropharyngeal cancer. | | 6 term | Theory | |
| SU20.2 | Enumerate the appropriate investigations and discuss the Principles of treatment. | Lecture | 6 term | Theory | Theory |
| Disorders of salivary glands | | | | | |
| SU21.1 | Describe surgical anatomy of the salivary glands, pathology, and clinical presentation of disorders of salivary glands | Lecture | 6 term | Theory | Theory |
| SU21.2 | Enumerate the appropriate investigations and describe the Principles of treatment of disorders of salivary glands | Lecture | 6 term | Theory | Theory |
| Endocrine General Surgery: Thyroid and parathyroid | | | | | |
| SU22.1 | Describe the applied anatomy and physiology of thyroid | Lecture | 7 term | Theory | Theory |
| SU22.2 | Describe the etiopathogenesis of thyroidal swellings | Lecture | 7 term | Theory | Theory |

| | | | | | |
|-----------------------|---|---------|--------|--------|--------|
| SU22.4 | Describe the clinical features, classification and principles of management of thyroid cancer | Lecture | 7 term | Theory | Theory |
| SU22.5 | Describe the applied anatomy of parathyroid | Lecture | 7 term | Theory | Theory |
| SU22.6 | Describe and discuss the clinical features of hypo - and hyperparathyroidism and the principles of their management | Lecture | 7 term | Theory | Theory |
| Adrenal glands | | | | | |
| SU23.1 | Describe the applied anatomy of adrenal glands | Lecture | 7 term | Theory | Theory |
| SU23.2 | Describe the etiology, clinical features and principles of management of disorders of adrenal gland | Lecture | 7 term | Theory | Theory |
| | Describe the clinical features, classification and principles of management of thyroid cancer | Lecture | 7 term | Theory | Theory |
| SU23.3 | Describe the clinical features, principles of investigation and management of Adrenal tumors | Lecture | 7 term | Theory | Theory |
| Pancreas | | | 7 term | | |
| SU24.1 | Describe the clinical features, principles of investigation, prognosis and management of pancreatitis. | Lecture | 7 term | Theory | Theory |
| SU24.2 | Describe the clinical features, principles of investigation, prognosis and management of pancreatic endocrine tumours | Lecture | 9 term | Quiz | Theory |
| SU24.3 | Describe the principles of investigation and management of Pancreatic disorders including pancreatitis and endocrine tumors. | Lecture | 9 term | Quiz | Theory |
| Breast | | | | | |
| SU25.1 | Describe applied anatomy and appropriate investigations for breast disease | Lecture | 7 term | Theory | Theory |
| SU25.2 | Describe the etiopathogenesis, clinical features and principles of management of benign breast disease including infections of the breast | Lecture | 7 term | Theory | Theory |

| | | | | | |
|---|---|---------|--------|--------|--------|
| SU25.3 | Describe the etiopathogenesis, clinical features, Investigations and principles of treatment of benign and malignant tumours of breast. | Lecture | 7 term | Theory | Theory |
| Cardio-thoracic General Surgery- Chest - Heart and Lungs | | | | | |
| SU26.1 | Outline the role of surgery in the management of coronary heart disease, valvular heart diseases and congenital heart diseases | Lecture | 9 term | Quiz | Theory |
| SU26.3 | Describe the clinical features of mediastinal diseases and the principles of management | Lecture | 9 term | Quiz | Theory |
| SU26.4 | Describe the etiology, pathogenesis, clinical features of tumors of lung and the principles of management | Lecture | 9 term | Quiz | Theory |
| Vascular diseases | | | | | |
| SU27.1 | Describe the etiopathogenesis, clinical features, investigations and principles of treatment of occlusive arterial disease. | Lecture | 4 term | Quiz | Theory |
| SU27.3 | Describe clinical features, investigations and principles of management of vasospastic disorders | Lecture | 4 term | Quiz | Theory |
| SU27.4 | Describe the types of gangrene and principles of amputation | Lecture | 4 term | Quiz | Theory |
| SU27.5 | Describe the applied anatomy of venous system of lower limb | Lecture | 4 term | Quiz | Theory |
| SU27.6 | Describe pathophysiology, clinical features, Investigations and principles of management of DVT and Varicose veins | Lecture | 4 term | Quiz | Theory |
| SU27.7 | Describe pathophysiology, clinical features, investigations and principles of management of Lymph edema, lymphangitis and Lymphomas | Lecture | 4 term | Quiz | Theory |
| Abdomen | | | | | |
| SU28.1 | Describe pathophysiology, clinical features, Investigations and principles of management of Hernias | Lecture | 5 term | Quiz | Theory |

| | | | | | |
|---------|---|---------|--------|------|--------|
| SU28.3 | Describe causes, clinical features, complications and principles of mangament of peritonitis | Lecture | 9 term | Quiz | Theory |
| SU28.4 | Describe pathophysiology, clinical features, investigations and principles of management of Intra-abdominal abscess, mesenteric cyst, and retroperitoneal tumors | Lecture | 9 term | Quiz | Theory |
| SU28.5 | Describe the applied Anatomy and physiology of esophagus | Lecture | 9 term | Quiz | Theory |
| SU28.6 | Describe the clinical features, investigations and principles of management of benign and malignant disorders of esophagus | Lecture | 9 term | Quiz | Theory |
| SU28.7 | Describe the applied anatomy and physiology of stomach | Lecture | 9 term | Quiz | Theory |
| SU28.8 | Describe and discuss the aetiology, the clinical features, investigations and principles of management of congenital hypertrophic pyloric stenosis, Peptic ulcer disease, Carcinoma stomach | Lecture | 9 term | Quiz | Theory |
| SU28.10 | Describe the applied anatomy of liver. Describe the clinical features, Investigations and principles of management of liver abscess, hydatid disease, injuries and tumors of the liver | Lecture | 9 term | Quiz | Theory |
| SU28.11 | Describe the applied anatomy of spleen. Describe the clinical features, investigations and principles of management of splenic injuries. Describe the post-splenectomy sepsis - prophylaxis | Lecture | 9 term | Quiz | Theory |
| SU28.12 | Describe the applied anatomy of biliary system. Describe the clinical features, investigations and principles of management of diseases of biliary system | Lecture | 9 term | Quiz | Theory |
| SU28.13 | Describe the applied anatomy of small and large intestine | Lecture | 9 term | Quiz | Theory |

| | | | | | |
|-----------------------|---|---------|--------|--------|--------|
| SU28.14 | Describe the clinical features, investigations and principles of management of disorders of small and large intestine including neonatal obstruction and Short gut syndrome | Lecture | 9 term | Quiz | Theory |
| SU28.15 | Describe the clinical features, investigations and principles of management of diseases of Appendix including appendicitis and its complications. | Lecture | 9 term | Quiz | Theory |
| SU28.16 | Describe applied anatomy including congenital anomalies of the rectum and anal canal | Lecture | 9 term | Quiz | Theory |
| SU28.17 | Describe the clinical features, investigations and principles of management of common anorectal diseases | Lecture | 9 term | Quiz | Theory |
| Urinary System | | | | | |
| SU29.1 | Describe the causes, investigations and principles of management of Hematuria | Lecture | 8 term | Theory | Theory |
| SU29.2 | Describe the clinical features, investigations and principles of management of congenital anomalies of genitourinary system | Lecture | 8 term | Theory | Theory |
| SU29.3 | Describe the Clinical features, Investigations and principles of management of urinary tract infections | Lecture | 8 term | Theory | Theory |
| SU29.4 | Describe the clinical features, investigations and principles of management of hydronephrosis | Lecture | 8 term | Theory | Theory |
| SU29.5 | Describe the clinical features, investigations and principles of management of renal calculi | Lecture | 8 term | Theory | Theory |
| SU29.6 | Describe the clinical features, investigations and principles of management of renal tumours | Lecture | 8 term | Theory | Theory |
| SU29.7 | Describe the principles of management of acute and chronic retention of urine | Lecture | 8 term | Theory | Theory |
| SU29.8 | Describe the clinical features, investigations and principles of management of bladder cancer | Lecture | 8 term | Theory | Theory |
| SU29.9 | Describe the clinical features, investigations and principles of management of disorders of prostate | Lecture | 8 term | Theory | Theory |

| | | | | | |
|-------------------------------|--|---------|--------|--------|--------|
| SU29.11 | Describe clinical features, investigations and management of urethral strictures | Lecture | 8 term | Theory | Theory |
| Penis, Testis, Scrotum | | | | | |
| SU30.1 | Describe the clinical features, investigations and principles of management of phimosis, paraphimosis and carcinoma penis. | Lecture | 8 term | Theory | Theory |
| SU 30.2 | Describe the applied anatomy clinical features, investigations and principles of management of undescended testis. | Lecture | 8 term | Theory | Theory |
| SU30.3 | Describe the applied anatomy clinical features, investigations and principles of management of epididymo-orchitis | Lecture | 8 term | Theory | Theory |
| SU30.4 | Describe the applied anatomy clinical features, investigations and principles of management of varicocele | Lecture | 8 term | Theory | Theory |
| SU30.5 | Describe the applied anatomy, clinical features, investigations and principles of management of Hydrocele | Lecture | 8 term | Theory | Theory |
| SU30.6 | Describe classification, clinical features, investigations and principles of management of tumours of testis | Lecture | 8 term | Theory | Theory |

Surgery competencies – Psychomotor skills

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|--|---|---------|-----------|-----------------|----------------------|
| Wound healing and Wound care | | | | | |
| SU5.2 | Elicit, document and present a history in a patient presenting with wounds. | Clinics | 5 term | OSCE/Short case | Long case/short case |
| Ethics | | | | | |
| SU8.2 | Demonstrate Professionalism and empathy to the patient undergoing General Surgery | DOAP | 3,4 term | OSCE/Short case | Long case/short case |
| SU8.3 | Discuss Medico-legal issues in surgical practice | Lecture | 3, 4 term | OSCE/Short case | Long case/short case |
| Investigation of surgical patient | | | | | |

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|---|--|---------|-----------|-----------------|----------------------|
| Su9.1 | Choose appropriate biochemical, microbiological, pathological, imaging investigations and interpret the investigative data in a surgical patient | Clinics | 8, 9 term | OSCE/Short case | Long case/short case |
| SU9.2 | Biological basis for early detection of cancer and multidisciplinary approach in management of cancer | Lecture | 8, 9 term | OSCE/Short case | Long case/short case |
| SU9.3 | Communicate the results of surgical investigations and counsel the patient appropriately | DOAP | 8, 9 term | OSCE/Short case | Long case/short case |
| Pre, intra and post- operative management. | | | | | |
| SU10.2 | Describe the steps and obtain informed consent in a simulated environment | Clinics | 8, 9 term | OSCE/Short case | Long case/short case |
| SU10.3 | Observe common surgical procedures and assist in minor surgical procedures; Observe emergency lifesaving surgical procedures. | DOAP | 8, 9 term | OSCE/Short case | Long case/short case |
| SU10.4 | Perform basic surgical Skills such as First aid including suturing and minor surgical procedures in simulated environment | DOAP | 8, 9 term | OSCE/Short case | Long case/short case |
| Anesthesia and Pain management | | | | | |
| SU11.3 | Demonstrate maintenance of an airway in a mannequin or equivalent | DOAP | 8, 9 term | OSCE/Short case | Long case/short case |
| Transplantation | | | | | |
| SU13.4 | Counsel patients and relatives on organ donation in a simulated environment | Clinics | 8, 9 term | OSCE/Short case | Long case/short case |
| Basic Surgical skills | | | | | |
| SU14.4 | Demonstrate the techniques of asepsis and suturing in a simulated environment | Clinics | 8, 9 term | OSCE/Short case | Long case/short case |
| Trauma | | | | | |

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|---|--|---------|-----------|-----------------|----------------------|
| SU17.1 | Describe the Principles of FIRST AID | Clinics | 5 term | OSCE/Short case | Long case/short case |
| SU17.2 | Demonstrate the steps in Basic Life Support. Transport of injured patient in a simulated environment | DOAP | 5 term | OSCE/Short case | Long case/short case |
| SU17.10 | Demonstrate Airway maintenance. Recognize and manage tension pneumothorax, hemothorax and flail chest in simulated environment. | DOAP | 5 term | OSCE/Short case | Long case/short case |
| Skin and subcutaneous tissue | | | | | |
| SU18.3 | Describe and demonstrate the clinical examination of surgical patient including swelling and order relevant investigation for diagnosis. Describe and discuss appropriate treatment plan. | Clinics | 3, 4 term | OSCE/Short case | Long case/short case |
| Endocrine General Surgery: Thyroid and parathyroid | | | | | |
| SU22.3 | Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their management | Clinics | 7 term | OSCE/Short case | Long case/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 | Clinics | 7th term | OSCE/Short case | Long case/short case |
| IM12.7 | Demonstrate the correct technique to palpate the thyroid | Clinics | term | OSCE/Short case | Long case/short case |
| Breast | | | | | |

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|---|--|---------|------------------------|-----------------|----------------------|
| SU24.5 | Demonstrate the correct technique to palpate the breast for breast swelling in a mannequin or equivalent | Clinics | 7 term | OSCE/Short case | Long case/short case |
| Vascular Diseases | | | | | |
| SU27.2 | Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease | Clinics | 4 term | OSCE/Short case | Long case/short case |
| SU27.8 | Demonstrate the correct examination of the lymphatic system | Clinics | 4 term | OSCE/Short case | Long case/short case |
| Abdomen | | | | | |
| SU28.2 | Demonstrate the correct technique to examine the patient with hernia and identify different types of hernias. | Clinics | 5 term | OSCE/Short case | Long case/short case |
| SU28.9 | Demonstrate the correct technique of examination of a patient with disorders of the stomach | Clinics | 8, 9 term | OSCE/Short case | Long case/short case |
| SU28.18 | Describe and demonstrate clinical examination of abdomen. Order relevant investigations. Describe and discuss appropriate treatment plan | Clinics | 8, 9 term | OSCE/Short case | Long case/short case |
| Urinary System | | | | | |
| SU29.10 | Demonstrate a digital rectal examination of the prostate in a mannequin or equivalent | Clinics | 8, 9 term | OSCE/Short case | Long case/short case |
| Blood and blood components | | | | | |
| SU3.2 | Observe blood transfusion | Bedside | 3,4 th term | OSCE/Short case | Long case/short case |
| Integration – Paediatric surgery | | | | | |

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|---------|--|------------|----------|-----------------|-----------------------------|
| PE21.8 | Elicit, document and present a history pertaining to diseases of theGenitourinary tract00 | Bedside | 6,7 term | OSCE/Short case | Bedside clinics, Skills lab |
| 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, undescendedtestis, Chordee, hypospadiasis, Torsion testis, hernia Hydrocele,Vulval Synechiae | Clinics | 6,7 term | OSCE/Short case | Bed side clinics,Skills lab |
| IM13.9 | Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and papsmear | Skills lab | 6,7 term | OSCE | Long case/short case |
| IM15.7 | Demonstrate the correct technique to perform an anal and rectalexamination in a mannequin or equivalent | | | | DOAP session |

Surgery competencies – Communication skills

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|-----------------------------------|---|---------|-----------|-----------------|----------------------|
| Shock | | | | | |
| SU2.3 | Communicate and counsel patients and families about the treatment and prognosis of shock demonstrating empathy and care | Clinics | 3, 4 term | OSCE/Short case | Long case/short case |
| Blood and Blood components | | | | | |
| SU3.3 | Counsel patients and family/ friends for blood transfusion and blood donation. | Clinics | 3, 4 term | OSCE/Short case | Long case/short case |
| Burns | | | | | |

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|---------------|---|---------|-----------|-----------------|----------------------|
| SU4.4 | Communicate and counsel patients and families on the outcome and rehabilitation demonstrating empathy and care. | Clinics | 3, 4 term | OSCE/Short case | Long case/short case |
| Breast | | | | | |
| SU24.4 | Counsel the patient and obtain informed consent for treatment of malignant conditions of the breast | Clinics | 8, 9 term | OSCE/Short case | Long case/short case |
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Horizontal Integration Topics – Internal medicine, Orthopedics, Obstetrics and Gynecology and Anaesthesiology

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|--------------------------|--|---|--|-----------------|----------------------------|
| Internal Medicine | | | | | |
| IM5.8 | Describe and discuss the pathophysiology, clinical evolution and complications of cholelithiasis and cholecystitis | Lecture, Small group discussion | 6 th and 7 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| IM5.13 | Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver disease | Bed side clinic, Small group discussion | 6 th and 7 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| IM5.16 | Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites, spontaneous, bacterial peritonitis and hepatic encephalopathy | Lecture, Small group discussion | 6 th and 7 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ / MCQ |
| IM5.18 | Enumerate the indications for hepatic transplantation | Lecture, Small group discussion | 6 th and 7 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ / MCQ |
| IM12.8 | Generate a differential diagnosis based on the clinical presentation and prioritise it based on | Bed side clinic, Small | 6 th and 7 th term | OSCE/short case | Essay/sort essay/SAQ |

| | | | | | |
|---------|---|---|--|-----------------|--------------------------|
| | the most likely diagnosis | group discussion | | | / MCQ |
| 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 | Bed side clinic, Small group discussion | 6 th and 7 th term | OSCE/short case | Longcase/short case/ |
| IM12.10 | Identify atrial fibrillation, pericardial effusion and bradycardia on ECG | Bed side clinic, Small group discussion | 6 th and 7 th term | OSCE/short case | Longcase/short case/ |
| IM12.11 | Interpret thyroid function tests in hypo-and hyperthyroidism | Bed side clinic, Small group discussion | 6 th and 7 th term | OSCE/short case | Longcase/short case/ |
| IM12.13 | Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs | Lecture, Small group discussion | 6 th and 7 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| IM12.15 | Describe and discuss the indications of thionamide therapy, radioiodine therapy and Surgery in the management of thyrotoxicosis | Bed side clinic, Small group discussion | 6 th and 7 th term | OSCE/short case | Longcase/short case/ |

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|---------|--|---|--|-----------------|--------------------------|
| 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 | Bedside clinic | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| 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 | Bedside clinic | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| IM13.9 | Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and papsmear | Bedside clinic | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| IM13.10 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis | Bedside clinic | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| IM13.13 | Describe and assess pain and suffering objectively in a patient with cancer | Bedside clinic | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| IM13.14 | Describe the indications for General Surgery, radiation and chemotherapy for common malignancies | Bedside clinic | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| IM14.14 | Describe and enumerate the indications and side effects of bariatric surgery | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| IM15.1 | Enumerate, describe and discuss the aetiology of upper and lower GI bleeding | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| IM15.2 | Enumerate, describe and discuss the evaluation and steps involved in stabilizing a patient who presents with acute volume loss and GI bleed | DOAP session, Small group discussion, Lecture | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |

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|--------|---|---|--|-----------------|--------------------------|
| IM15.3 | Describe and discuss the physiologic effects of acute blood and volume loss | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| IM15.4 | Elicit document and present an appropriate history that identifies the route of bleeding, quantity, grade, volume loss, duration, etiology, comorbid illnesses and risk factors | DOAP session, Small group discussion, Lecture | 8 th and 9 th term | MCQs/Quiz/Drill | Longcase/short case/ |

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|---------|---|---------------------------------|--|-----------------|--------------------------|
| IM15.5 | Perform, demonstrate and document a physical examination based on the history that includes general examination, volume assessment and appropriate abdominal examination | Bedside clinics | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| IM15.6 | Distinguish between upper and lower gastrointestinal bleeding based on the clinical features | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| IM15.8 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis | Bedside clinic | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| 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. | Bedside clinic, DOAP | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| IM15.10 | Enumerate the indications for endoscopy, colonoscopy and other imaging procedures in the investigation of Upper GI bleeding | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| 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 | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| IM15.12 | Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion | Lecture, Small group discussion | 8 th and 9 th term | OSCE/short case | Essay/sort essay/SAQ/MCQ |
| IM15.13 | Observe cross matching and blood / blood component transfusion | Bedside clinic | 8 th and 9 th term | | Longcase/short case/ |

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|---------|---|------------------------------------|--|-----------------|--------------------------|
| IM15.14 | Describe and enumerate the indications, pharmacology and sideeffects of pharmacotherapy of pressors used in the treatment of Upper GI bleed | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
|---------|---|------------------------------------|--|-----------------|--------------------------|

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|---------|--|---------------------------------|--|-----------------|
| IM15.15 | Describe and enumerate the indications, pharmacology and sideeffects of pharmacotherapy of acid peptic disease including <i>Helicobacter pylori</i> | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |
| IM15.16 | Enumerate the indications for endoscopic interventions and Surgery | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |
| IM15.17 | Determine appropriate level of specialist consultation | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |
| IM15.18 | Counsel the family and patient in an empathetic non-judgmentalmanner on the diagnosis and therapeutic options | DOAP session | 8 th and 9 th term | OSCE/short case |
| IM16.12 | Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging and biopsy in the diagnosis of chronic diarrhea | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |
| IM16.15 | Distinguish, based on the clinical presentation, Crohn's diseasefrom ulcerative colitis | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |
| IM16.17 | Describe and enumerate the indications for Surgeryin inflammatorybowel disease | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |
| IM18.15 | Enumerate the indications for Surgery in a hemorrhagic stroke | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |
| IM19.9 | Enumerate the indications for use of Surgery and botulinum toxin inthe treatment of movement disorders | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |
| IM22.2 | Describe the aetiology, clinical manifestations, diagnosis and clinicalapproach to primary hyperparathyroidism | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |
| IM24.11 | Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |

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|------------------------------------|--|---------------------------------|--|-----------------|
| Obstetrics & Gynecology | | | | |
| OG26.2 | Describe the causes, prevention, clinical features, principles ofmanagement of genital injuries and fistulae | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |

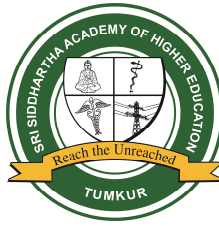
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|--------|---|---------------------------------|--|-----------------|
| OG33.2 | Describe the principles of management including Surgery and radiotherapy of benign, pre-malignant (CIN) and malignant Lesions of the Cervix | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill |
|--------|---|---------------------------------|--|-----------------|

| Orthopaedics | | | | | |
|--------------|--|---------------------------------|--|-----------------|--------------------------|
| OR1.1 | Describe and discuss the principles of pre-hospital care and casualty management of a trauma victim including principles of triage | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| OR1.2 | Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| OR1.3 | Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| OR1.4 | Describe and discuss the principles of management of soft tissue injuries | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| OR3.1 | Describe and discuss the aetiopathogenesis, clinical features, Investigations and principles of management of Bone and Joint infections a) Acute Osteomyelitis b) Subacute osteomyelitis c) Acute Suppurative arthritis d) Septic arthritis & HIV infection e) Spirochaetal infection f) Skeletal Tuberculosis | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| OR3.3 | Participate as a member in team for procedures like drainage of abscess, sequestrectomy/ saucerisation and arthrotomy | DOAP | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| OR4.1 | Describe and discuss the clinical features, Investigation and principles of management of Tuberculosis affecting major joints (Hip, Knee) including cold abscess and caries spine | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |

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|------------------------|---|---------------------------------|--|------------------|--------------------------|
| OR10.1 | Describe and discuss the aetiopathogenesis, clinical features, Investigations and principles of management of benign and malignant bone tumours and pathological fractures | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz /Drill | Essay/sort essay/SAQ/MCQ |
| 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 | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz /Drill | Essay/sort essay/SAQ/MCQ |
| Anaesthesiology | | | | | |
| AS3.1 | Describe the principles of preoperative evaluation | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz /Drill | Essay/sort essay/SAQ/MCQ |
| 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 | DOAP | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| AS3.3 | Demonstrate and document an appropriate clinical examination in a patient undergoing General Surgery | DOAP | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |
| AS3.4 | Choose and interpret appropriate testing for patients undergoing Surgery | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz /Drill | Essay/sort essay/SAQ/MCQ |
| AS3.5 | Determine the readiness for General Surgery in a patient based on the preoperative evaluation | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz /Drill | Essay/sort essay/SAQ/MCQ |
| AS5.6 | Observe and describe the principles and steps/ techniques involved in common blocks used in Surgery (including brachial plexus blocks) | DOAP | 8 th and 9 th term | OSCE/short case | Longcase/short case/ |

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|--------|--|---------------------------------|--|-----------------|--------------------------|
| AS6.3 | Describe the common complications encountered by patients in the recovery room, their recognition and principles of management | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| AS9.3 | Describe the principles of fluid therapy in the preoperative period | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| AS9.4 | Enumerate blood products and describe the use of blood products in the preoperative period | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |
| AS10.3 | Describe the role of communication in patient safety | Lecture, Small group discussion | 8 th and 9 th term | MCQs/Quiz/Drill | Essay/sort essay/SAQ/MCQ |

Sri Siddhartha Academy of Higher Education, Tumkur



UNDERGRADUATE LOG BOOK (CBME)

DEPARTMENT OF GENERAL SURGERY

Purpose of this logbook

The logbook is a verified record of the progression of the learner documenting the acquisition of the requisite knowledge, skills, attitude, and/or competencies in order to function as an Indian Medical Graduate. It is a record of the academic/cocurricular activities of the designated student, who would be responsible for maintaining his/her logbook.

Entries in the logbook will reflect the activities undertaken in the department and has to be scrutinized by the head of the concerned department.

The logbook is a record of various activities by the student like:

- ✓ Overall participation & performance
- ✓ Attendance
- ✓ Participation in sessions
- ✓ Record of completion of pre-determined activities
- ✓ Acquisition of selected competencies

The logbook is the record of work done by the candidate in the department and shall be verified by the college before submitting the application of the students for the university examination.

The purposes of this logbook are:

- a. To orient the students to holistic patient management by completing the case record, observing and recording procedures and discussing patient treatment in the therapeutics section.
- b. To facilitate the student's learning process, document the learning process and assist instudent assessment
- c. To keep a record of the student's progress in development of the desired skills and attitudes
- d. To ensure that the time spent in the department is well utilized
- e. To form a basis for continual assessment of the student

This log book is a documentation of cases seen, clerked and witnessed by you during your posting in General Surgery. It is also a record of various seminars, case-based learning, simulation exercises and other academic activities that the learner has been a part of during course. Though efforts are made to cover as much as possible, in no way should this be considered the syllabus.

Please carry this book whenever you attend the non-lecture academic activities of the department and get it duly signed by the concerned staff at the end of the academic activity. We expect discipline, honesty, sincerity and punctuality.

The responsibility of completing the logbook and getting it verified/assessed by the faculty lies with the student. The logbook must be carried by the student as per the given instructions.

General Instructions

1. It is expected that the students will adhere to the highest ethical standards and professionalism.
2. Shall maintain punctuality in respect to arrival and completion of the assigned work
3. Maintain a cordial relationship with peers, unit staff and hospital staff
4. Not indulge in any act which would bring disrepute to the institution.
5. You should wear a clean apron and follow the dress regulations as laid down by the college and maintain proper hygiene with wearing respective identification badge while in college and hospital.
6. You should carry the following with you for the clinics
 - a. Clinical text book
 - b. Stethoscope
 - c. Clinical kit for examination as prescribed by the department of surgery.
7. Respect the patient as an individual and recognize that he/she also has rights.
8. Cases that are discussed only have to be documented and not the dummy cases.
9. **Loss of this logbook at any time may affect the formative assessment results and impair the student appearing in the summative assessment.**
10. **The student is solely responsible for maintaining the log book record. If the student loses the logbook, he/she would be withheld from appearing for the University examination unless suitable backup proof is provided.**

Student details

| | |
|---|--|
| Name of the student | |
| Roll No (College ID) | |
| University Registration Number | |
| Batch | |
| Contact No | |
| E mail Id | |
| Guardian/Parent Name Contact Number | |
| Faculty Mentor | |
| Name Department | |

BONAFIDE CERTIFICATE

**This is to certify that the candidate Mr/Ms....., Reg
No., admitted in the year..... in
College Hospital, has satisfactorily completed / has not completed all
requirements mentioned in this logbook for MBBS course in the subject
of GENERAL SURGERY including related AETCOM modules as per the
Competency-Based Undergraduate Medical Education Curriculum,
Graduate Medical Regulation during the period from to.....**

He/She is / is not eligible to appear for the University examination as on the date given below.

Signature of Faculty Mentor

Name and Designation

Countersigned by Head of the Department

Date

INDEX

| S. No. | Content | Page No. |
|--------|--|----------|
| 1. | Bonafide certificate | |
| 2. | Preface | |
| 3. | General Instructions | |
| 4. | Attendance extract | |
| 5. | Overall Assessment | |
| 6. | Clinical posting 1 | |
| 7. | Clinical posting 2 | |
| 8. | Clinical posting 3 | |
| 9. | Clinical posting 4 | |
| 10. | Check lists for skills assessments | |
| 11. | AETCOM modules | |
| 12. | Integrated sessions | |
| 13. | Small group learning sessions | |
| 14. | Self- Directed Learning sessions | |
| 15. | Seminars presented | |
| 16. | Research projects/publications | |
| 17. | Co - Curricular Activities (Quiz, Poster, Debate, Essay, Skits) | |
| 18. | CME/ Conference / Workshop | |
| 19. | Awards / recognition | |

ATTENDANCE EXTRACT

Theory classes

| | | | | |
|-------------------|-----------------|------------------|--------------------------|------------------|
| Professional Year | Number attended | Number conducted | Percentage of Attendance | Signature of HOD |
|-------------------|-----------------|------------------|--------------------------|------------------|

| | | | | |
|---------------------------------|--|--|--|--|
| Second Professional | | | | |
| Third professional-part I | | | | |
| Third ProfessionalPart II | | | | |

Small Group sessions

| Professional Year | Number attended | Number conducted | Percentage of Attendance | Signature of HOD |
|---------------------------------|--------------------|---------------------|--------------------------------|------------------|
| Third professional-part I | | | | |
| Third ProfessionalPart II | | | | |

Bedside clinics:

| Professional Year | Unit From (date) To (date) | Number attended | Number conducted | Percentage of Attendance | Signature of Unit Head | Signature of HOD |
|---|----------------------------|-----------------|------------------|--------------------------|------------------------|------------------|
| Second Professional Posting 1 | | | | | | |
| Third Professional Part I Posting 2 | | | | | | |
| Third Professional Part II Posting 3 Posting 4 | | | | | | |
| | | | | | | |

Note:

Every candidate should have **attendance not less than 75% of the total classes conducted in theory which includes didactic lectures and self-directed learning and not less than 80% of the total classes conducted in practical which includes small group teaching, tutorials, integrated learning and practical sessions** in each calendar year calculated from the date of commencement of the term to the last working day in each of the subjects prescribed to be eligible to appear for the university examination.

Overall assessment of the student

| | Posting 1 | Posting 2 | Posting 3 | Posting 4 |
|-----------------------------------|-----------|-----------|-----------|-----------|
| Attendance | /5 | /5 | /5 | /5 |
| Discipline | /5 | /5 | /5 | /5 |
| Middle of posting assessment | /5 | /10 | /20 | /30 |
| End of posting assessment | /5 | /15 | /20 | /30 |
| Student doctor method of learning | /5 | /10 | /10 | ----- |
| Total (/200) | / 25 | /45 | /60 | /70 |
| Remarks if any | | | | |

Total marks obtained on a total of 200 is -----

A student will be permitted to appear for final university exams only if he/she obtains more than 100 marks in the assessments.

Final remarks if any -

| |
|---|
| Posting 1 |
| Duration: 4 weeks |
| Date of Posting: From: <div style="text-align: center;">To:</div> |
| Unit: |

Bedside Clinics in Surgery II MBBS

| | |
|---|-----------------------------------|
| 1 | History taking surgery in surgery |
|---|-----------------------------------|

| | |
|---|---|
| 2 | General Physical examination |
| 3 | Eliciting vital signs |
| 4 | Examination of an ulcer |
| 5 | Examination of a swelling |
| 6 | Examination of abdomen |
| 7 | Hand wash and draping patients in OT |
| 8 | Basic instruments in surgical operation theatre |

Learner doctor method

Posting 1

One patient will be allotted to the student at the beginning of the posting. The patient is assessed at admission and followed up. The student will interact with the patient and the treating team to make daily notes of the following aspects of patient's progress in hospital.

History taking, physical examination, assessment of change in clinical status, communication and patient education. A brief summary is to be written at the end of the patient's stay in hospital.

Learner doctor method

Reflection on the learner doctor method of learning;

What happened?

So what ?

What next?

Signature of faculty:

Date :

| |
|--|
| List of Clinical Cases Presented/Attended in Posting 1: |
|--|

| | <u>Diagnosis</u> | Presented/Attended | Signature |
|----|------------------|--------------------|-----------|
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List of Cases observed/assisted in OT/Minor OT:

| | <u>Date</u> | Diagnosis | Operative procedure | Assisted/ Observed | Faculty signature |
|----|-------------|-----------|------------------------|-----------------------|----------------------|
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| Posting 2 |
| Duration: 4 weeks |
| Date of Posting: From: To: |
| Unit: |

Learner doctor method

Posting 2

One patient will be allotted to the student at the beginning of the posting. The patient is assessed at admission and followed up. The student will interact with the patient and the treating team to make daily notes of the following aspects of patient's progress in hospital.

History taking, physical examination, assessment of change in clinical status, communication and patient education. A brief summary is to be written at the end of the patient's stay in hospital.

Learner doctor method

Reflection on the learner doctor method of learning;

What happened?

So what ?

What next?

Signature of faculty:

Date :

| |
|---|
| <p>List of Clinical Cases Presented/Attended in Posting 2:</p> |
|---|

| | <u>Diagnosis</u> | Presented/Attended | Signature |
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List of Cases observed/assisted in OT/Minor OT:

| | <u>Date</u> | Diagnosis | Operative procedure | Assisted/ Observed | Faculty signature |
|----|-------------|-----------|---------------------|-----------------------|----------------------|
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Bedside Clinics in Surgery III MBBS Part I

| S no. | Competency No. | Competency addressed | Date completed Dd/m m/yyyy | Attempt at activity* | Rating** | Decision of faculty** | Initial of faculty and date | Feedback Received Initial of learner |
|--------------|-----------------------|---|---------------------------------------|-----------------------------|-----------------|------------------------------|------------------------------------|--|
| 1 | SU22.2 | Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their management | | | | | | |
| 2 | SU25.5 | Demonstrate the correct technique to palpate the breast for breast lump on a patient | | | | | | |
| 3 | SU27.8 | Demonstrate the correct examination of the lymphatic system | | | | | | |
| 4 | SU21.2 | Demonstrate and document the correct clinical examination of swelling in the submandibular region and discuss the differential diagnosis and management | | | | | | |

*First or Only (F) Repeat (R) Remedial (Re)

**Below(B) expectations Meets(M) expectations Exceeds (E)expectations

*** Completed (C) Repeat (R) Remedial (Re)

TUTORIALS in Surgery for MBBS Professional –III PART 1

| SL No. | Competency No. | Competency addressed | Date completed Dd/m m/yyyy | Attempt at activity* | Rating** | Decision of faculty*** | Initial of faculty and date | Feedback Received Initial of learner |
|--------|----------------|--|-------------------------------|----------------------|----------|------------------------|-----------------------------|---|
| 1 | SU2.3 | Communicate and counsel patients and families about the treatment and prognosis of shock demonstrating empathy and care | | | | | | |
| 2 | SU4.4 | Burns: Communicate and counsel patients and families on the outcome and rehabilitation demonstrating empathy and care. | | | | | | |
| 3 | SU5.2 | Elicit, document and present a history in a patient presenting with wounds. | | | | | | |
| 4 | SU6.2 | Enumerate Prophylactic and therapeutic antibiotics Plan appropriate management | | | | | | |
| 5 | SU11.5 | Describe the steps and obtain informed consent in a simulated environment | | | | | | |
| 6 | SU12.2 | Describe and discuss the methods of estimation and replacement of the fluid and electrolyte requirements in the surgical patient | | | | | | |

| | | | | | | | | |
|----|---------|---|--|--|--|--|--|--|
| 7 | SU8.2 | Demonstrate Professionalism and empathy to the patient undergoing General Surgery | | | | | | |
| 8 | SU3.2 | Observe blood transfusions. | | | | | | |
| 9 | SU3.3 | Counsel patients and family/ friends for blood transfusion and blood donation. | | | | | | |
| 12 | SU17.2 | Demonstrate the steps in Basic Life Support. Transport of injured patient in a simulated environment | | | | | | |
| 11 | SU17.10 | Demonstrate Airway maintenance. Recognize and manage tension pneumothorax, hemothorax and flail chest in simulated environment. | | | | | | |

SEMINARS

| | | | | | | | | |
|---|--------|---|--|--|--|--|--|--|
| 1 | SU4.2 | Burns assessment | | | | | | |
| 1 | SU8.3 | Discuss Medico-legal issues in surgical practice | | | | | | |
| 1 | SU17.1 | Principles of FIRST AID | | | | | | |
| 1 | SU14.3 | Surgical Wound Closure and Anastomosis(Sutures , Knots And Needles) | | | | | | |
| 1 | 17.3 | Mass casualties | | | | | | |
| 1 | 17.9 | Chest Injuries | | | | | | |
| 1 | SU19.2 | Cleft Lip and Palate | | | | | | |

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|---|--------|---------------------------|--|--|--|--|--|--|
| 1 | SU22.4 | Thyroid Cancer | | | | | | |
| 2 | SU22.6 | Hyperparathyroidism | | | | | | |
| 2 | SU26.1 | Congenital Heart Diseases | | | | | | |
| 2 | SU17.1 | Basic life support | | | | | | |
| 2 | SU27.3 | Principles of Amputation | | | | | | |

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|---|
| Posting 3 |
| Duration: 8 weeks |
| Date of Posting: From: <div style="text-align: center;">To:</div> |
| Unit: |

Clinical postings (8+4*WEEKS)

| | |
|--------------------------------|--|
| OPD | Observe and record new and follow up cases in OPD(3hrs) |
| Post Admission day ward rounds | Follow up of assigned cases(1hr), Bedside clinics SGD,DOAP(1hr), SDL, Discussion and closure (1hr) |
| OT | Observe OT procedures and document in the logbook with Discussion(3hrs) |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (SGD, DOAP(1hr), SDL, Discussion and closure (1hr) |

Learner doctor method

Posting 3

One patient will be allotted to the student at the beginning of the posting. The patient is assessed at admission and followed up. The student will interact with the patient and the treating team to make daily notes of the following aspects of patient's progress in hospital.

History taking, physical examination, assessment of change in clinical status, communication and patient education. A brief summary is to be written at the end of the patient's stay in hospital.

Learner doctor method

Reflection on the learner doctor method of learning;

What happened?

So what ?

What next?

Signature of faculty:

Date :

| |
|--|
| List of Clinical Cases Presented/Attended in Posting 3: |
|--|

| | <u>Diagnosis</u> | Presented/Attended | Signature |
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List of Cases observed/assisted in OT/Minor OT:

| | <u>Date</u> | Diagnosis | Operative procedure | Assisted/Observed | Faculty signature |
|----|-------------|-----------|---------------------|-------------------|-------------------|
| 1 | | | | | |
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Bedside Clinics in General Surgery for MBBS Third Professional year - Part 2

Bedside Clinics in Surgery For MBBS-PHASE 3

| S no. | Competency No. | Competency addressed | Date completed Dd/m m/yyyy | Attempt at activity* | Rating** | Decision of faculty*** | Initial of faculty and date | Feedback Received Initial of learner |
|-------------------|----------------|--|-------------------------------|----------------------|----------|------------------------|-----------------------------|---|
| | SU21.1 | Salivary gland examination | | | | | | |
| Abdomen | SU28.9 | Demonstrate the correct technique to examine the patient with disorders of stomach | | | | | | |
| Abdomen | SU28.18 | Describe and demonstrate clinical examination of abdomen. Order relevant investigations. Describe and discuss appropriate treatment plan | | | | | | |
| Thyroid | SU22.3 | Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their management | | | | | | |
| Vascular diseases | SU27.2 | Demonstrate the correct examination of the vascular system and enumerate and describe the | | | | | | |

| | | | | | | | | |
|---------------------------|------------------|---|--|--|--|--|--|--|
| | | investigation of vascular disease | | | | | | |
| Penis, Testis and scrotum | SU30.5 | Describe the applied anatomy, clinical features, investigations and principles of management of Hydrocele | | | | | | |
| Breast | SU25.5 SU25.4 | Demonstrate the correct technique to palpate the breast for swelling in a mannequin or equivalent Counsel the patient and obtain informed consent for treatment of malignant conditions of the breast | | | | | | |
| Abdomen | SU28.2 | Demonstrate the correct technique to examine the patient with hernia and identify different types of hernias | | | | | | |

*First or Only (F) Repeat (R) Remedial (Re)

**Below (B) expectations Meets (M) expectations Exceeds (E) expectations

*** Completed (C) Repeat (R) Remedial (Re)

List of Tutorials and seminars MBBS Part 3

| SL No. | Competency No. | Competency addressed | Date completed Dd/m m/yyyy | Attempt at activity* | Rating** | Decision of faculty*** | Initial of faculty and date | Feedback Received Initial of learner |
|--------|----------------|----------------------|-------------------------------|----------------------|----------|------------------------|-----------------------------|---|
|--------|----------------|----------------------|-------------------------------|----------------------|----------|------------------------|-----------------------------|---|

| | | | | | | | | |
|---|---------|--|--|--|--|--|--|--|
| 1 | SU19.2 | Principles of reconstruction of cleft lip and palate | | | | | | |
| 2 | SU20.2 | Principles of treatment – Oropharyngeal cancer | | | | | | |
| 3 | SU25.4 | Counsel the patient and obtain informed consent for treatment of malignant conditions of the breast | | | | | | |
| 4 | SU29.10 | Digital rectal examination of the prostate in a mannequin or equivalent | | | | | | |
| 5 | SU9.3 | Communicate the results of surgical investigations and counsel the patient appropriately | | | | | | |
| 6 | SU9.1 | Choose appropriate biochemical, microbiological, pathological, imaging investigations and interpret the investigative data in a surgical patient | | | | | | |
| 7 | SU10.2 | Describe the steps and obtain informed consent in a simulated environment | | | | | | |
| 8 | SU10.4 | Perform basic surgical Skills such as First aid including suturing and minor surgical procedures in simulated environment | | | | | | |

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|---|--------|---|--|--|--|--|--|--|
| 9 | SU11.3 | Demonstrate maintenance of an airway in a mannequin or equivalent | | | | | | |
| 1 | SU13.4 | Counsel patients and relatives on organ donation in a simulated environment | | | | | | |
| 1 | SU14.4 | Demonstrate the techniques of asepsis and suturing in a simulated environment | | | | | | |
| 1 | SU25.4 | Counsel the patient and obtain informed consent for treatment of malignant conditions of the breast | | | | | | |

SEMINARS

| | | | | | | | | |
|---|---------|---------------------------------------|--|--|--|--|--|--|
| 1 | SU28.11 | post-splenectomy sepsis - prophylaxis | | | | | | |
| 1 | SU28.4 | Short gut syndrome | | | | | | |

| |
|--|
| Posting 4 |
| Duration: 4 weeks |
| Date of Posting: From: To: |
| Unit: |

Learner doctor method

Posting 4

One patient will be allotted to the student at the beginning of the posting. The patient is assessed at admission and followed up. The student will interact with the patient and the treating team to make daily notes of the following aspects of patient's progress in hospital.

History taking, physical examination, assessment of change in clinical status, communication and patient education. A brief summary is to be written at the end of the patient's stay in hospital.

Learner doctor method

Reflection on the learner doctor method of learning;

What happened?

So what ?

What next?

Signature of faculty:

Date :

| |
|--|
| List of Clinical Cases Presented/Attended in Posting 4: |
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| | <u>Diagnosis</u> | Presented/Attended | Signature |
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List of Cases observed/assisted in OT/Minor OT:

| | <u>Date</u> | Diagnosis | Operative procedure | Assisted/Observed | Faculty signature |
|----|-------------|-----------|---------------------|-------------------|-------------------|
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Observe common surgical procedures and assist in minor surgical procedures; Observe emergency lifesaving surgical procedures.

List of Minor Procedures

| S.No. | Procedure (Minimum number – 2) | Number observed | Date | Faculty signature |
|--------------|--|------------------------|-------------|--------------------------|
| 1 | ICD insertion | | | |
| 2 | Ryles tube insertion | | | |
| 3 | Foleys catheter insertion | | | |
| 4 | Central line insertion | | | |
| 5 | Swelling excision | | | |
| 6 | Lymph node biopsy | | | |
| 7 | Toe nail excision | | | |
| 8 | Paronychia drainage | | | |
| 9 | Toe disarticulation | | | |
| 10 | Bedside debridement | | | |

List of common surgical procedures

| S.No. | Procedure (Minimum number 2) | Number observed | Date | Faculty signature |
|--------------|---|------------------------|-------------|--------------------------|
| 1 | Inguinal Hernia repair | | | |
| 2 | Appendectomy | | | |
| 3 | Fibroadenoma excision | | | |
| 4 | Circumcision | | | |
| 5 | Thyroidectomy | | | |
| 6 | Modified Radical Mastectomy | | | |
| 7 | Varicose vein surgery | | | |

| | | | | |
|-----------|-------------------------------------|--|--|--|
| 8 | Laparotomy | | | |
| 9 | Laparoscopic cholecystectomy | | | |
| 10 | Ventral hernia repair | | | |

TUTORIALS (60 HRS)

| SL NO. | COMPETE NCY NO. | TOPIC | Date of activity | Faculty feedback | Signature of Faculty |
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SEMINAR (40 Hours)

| SL NO. | COMPETENCY NO. | TOPIC | Date of activity | Faculty feedback | Signature of Faculty |
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Competency Acquisition: Suggested Log Book pattern

| | | |
|--|--------------------------|-------------------|
| Name of student | Roll number | Year of joining |
| | | |
| Specific competency no. | | |
| Competency required to graduate | Universal competency no. | |
| Administer informed consent to a patient undergoing surgery in a simulated environment (Dreyfus level advanced beginner) | | |
| Competency must be acquired at the end of professional year | IV | |
| Is the acquisition of this competency a prerequisite to advancement to the next phase | Yes/ No | |
| Does this competency require performance in a patient | Yes/ No | |
| Number of times the student must have performed the skill | | |
| | Date Completed | Supervisor |
| | | |
| Certified by Faculty: Name, Date and UID | | |
| Student's descriptive narrative of skill acquired | | |
| Faculty only: If the student has not completed the competency, write down the reasons and remedial measures suggested | | |

Communication skills rating scale adapted from Kalamazoo consensus statement

Rating 1-3 - Poor, 4 -6 Satisfactory, 6 -10 Superior

| Criteria | Score |
|---------------------------------------|-------|
| Builds relationship | |
| Opens the discussion | |
| Gathers information | |
| Understands the patient's perspective | |
| Shares information | |
| Manages flow | |
| Overall rating | |

AETCOM MODULES

Module number:

Date:

Name of the activity:

Department of General surgery

| |
|---------------------------------|
| Competencies |
| The student should be able to : |
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Reflection

Feedback

Signature of the student:

Assessment:

Signature of the faculty

AETCOM MODULES

Module number:

Date:

Name of the activity:

Department of General surgery

| |
|---------------------------------|
| Competencies |
| The student should be able to : |
| |
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Reflection

Feedback

Signature of the student:

Assessment:

Signature of the faculty

AETCOM MODULES

Module number:

Date:

Name of the activity:

Department of General Surgery

| |
|---------------------------------|
| Competencies |
| The student should be able to : |
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Reflection

Feedback

Signature of the student:

Assessment:

Signature of the faculty

| | List of AETCOM competency | | | |
|----------------|--|--------|------|-----------|
| Competency No. | Competency | Domain | Date | Signature |
| 8 | Identify and discuss medico-legal, socioeconomic and ethical issues as it pertains to organ donation | K/KH | | |
| 14 | Identify, discuss and defend medico-legal, socio-cultural and ethical issues as it pertains to decision making in emergency care including situations where patients do not have the | K/KH | | |

| | | | | |
|----|--|------|--|--|
| | capability or capacity to give consent | | | |
| 18 | Identify, discuss and defend, medico-legal, socio-cultural and ethical issues as they pertain to consent for surgical procedures | K/KH | | |
| 23 | Demonstrate ability to communicate to patients in a patient, respectful, non-threatening, non-judgemental and empathetic manner | S/SH | | |

| | | | | |
|----|---|------|--|--|
| 32 | Demonstrate respect and follows the correct procedure when handling cadavers and other biologic tissues | S/SH | | |
| 33 | Administer informed consent and appropriately address patient queries to a patient undergoing a surgical procedure in a simulated environment | S/SH | | |
| 34 | Communicate diagnostic and therapeutic options to patient and | S/SH | | |

| | | | | |
|--|---|--|--|--|
| | family in a simulated environment | | | |
|--|---|--|--|--|

Integrated sessions

| | Date of session | Topics covered | Competency numbers addressed | Departments involved in the conduct of the session | Signature of the student | Signature of the faculty |
|---|-----------------|----------------|------------------------------|--|--------------------------|--------------------------|
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Small group discussions Phase 3, part 1

| | Topic | Type of SGD | Date | Observed/Presented | Faculty Sign |
|--|-------|-------------|------|--------------------|--------------|
| | | | | | |
| | | | | | |

[illegible]

Small group discussions Phase 3, part 2

[illegible]

[illegible]

[illegible]

Self-directed learning sessions:

| Sl. No. | Date | Topic | Competency number | Signature of the Faculty |
|--------------------|-------------|--------------|--------------------------|-------------------------------------|
| 11 | | | | |
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Seminars presented – phase 3 part 1

| | | | |
|---|-------------------|------|--------------------------|
| | Name of the topic | Date | Signature of the faculty |
| 1 | | | |

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Seminars presented Phase 3 part 2

| | Name of the topic | Date | Signature of the faculty |
|---|-------------------|------|--------------------------|
| 1 | | | |
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Research projects and publications

| | | | |
|---|-------------------|------|--------------------------|
| | Name of the topic | Date | Signature of the faculty |
| 1 | | | |

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| 3 | | | |
| 4 | | | |
| 5 | | | |

Co curricular activities –(quiz, poster, debates, essays, skit)

| | Name of the topic | Date | Signature of the faculty |
|---|-------------------|------|--------------------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |

| | | | |
|----|--|--|--|
| 8 | | | |
| 9 | | | |
| 10 | | | |

Participation in CME, conference, and workshops.

| | Name of the topic | Date | Signature of the faculty |
|---|-------------------|------|--------------------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

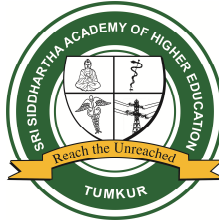
| | | | |
|----|--|--|--|
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

Awards and recognition

| | | | |
|--|-------------------|------|-----------------------------|
| | Name of the Award | Date | Signature of the faculty |
|--|-------------------|------|-----------------------------|

| | | | |
|---|--|--|--|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

Sri Siddhartha Academy of Higher Education, Tumkur



Surgery Allied Subjects including Anaesthesiology

Radiodiagnosis and Radiotherapy Curriculum

as per

Competency-Based Medical Education Curriculum

Anesthesiology CBME Curriculum of Phase-III Part I MBBS

| Theory teaching hours | | | | |
|-----------------------|-------------------------|----------------------|--------------------------------|---------------|
| Subject | Small group discussions | Interactive Lectures | Self directed learning (Hours) | Total (Hours) |
| Anaesthesiology | 10 | 8 | 2 | 20 |
| Clinical posting | | | | |
| Anaesthesiology | One week | | | |

| THEORY (20 hours) and CLINICS (1 week) | | | | | |
|--|-------------------------------|-----------------------|------------|--------|-------------|
| Sl number | Topic | Competency number | T-L method | Time | Integration |
| 1 | Anesthesiology as a specialty | AS 1.1, 1.2, 1.3, 1.4 | Lecture | 1 hour | |

| | | | | | |
|---|---|----------------------------|------------------------------------|---------|----------|
| 2 | Cardiopulmonary resuscitation | AS 2.1, 2.2 | Small group discussion, simulation | 2 hours | |
| 3 | Preoperative evaluation and medication | AS 3.1,3.2,3.3,3.4,3.5,3.6 | Lecture Clinics | 1 hour | Surgery |
| 4 | General Anaesthesia | AS 4.1, 4.2 | Lecture | 1 hour | |
| | | AS 4.3,4.4,4.5,4.6,4.7 | Small group discussion Clinics | 2 hours | |
| 5 | Regional anaesthesia | AS 5.1, 5.2 | Lecture | 1 hour | |
| | | AS 5.3,5.4,5.5,5.6 | Small group discussion Clinics | 2 hours | |
| 6 | Intensive Care Management | AS 7.1,7.2 | Lecture | 1 hour | |
| | | AS 7.3,7.4,7.5 | Small group discussion Clinics | 2 hours | Medicine |
| 7 | Pain and its management | AS 8.1,8.2,8.3,8.4,8.5 | Lecture | 1 hour | |
| 8 | Fluids | AS 9.1,9.2 | Small group discussion, skills lab | 2 hours | |
| | | AS 9.3,9.4 | Lecture | 1 hour | |
| 9 | Patient safety | AS 10.1,10.2,10.3,10.4 | Lecture | 1 hour | |

Self- Directed learning:

Duration: 2 hours

Students will be given clinical case scenarios and will be told to work in groups. Reference books and E material will be suggested to them beforehand. Discussion regarding monitoring, identification of high-risk patients, resuscitation and discharge criteria will be done.

| Self-Directed Learning – 2 hours | | | | |
|---|----------------------------------|----------------|------------------------|---|
| Sl no | Topic | Competencies | T-L method | Assessment |
| 1 | Post-anaesthesia recovery | AS 6.1,6.2,6.3 | Self-Directed Learning | Formative assessment Recording of team work contribution in Log Book |

Assessment and Feedback of Anaesthesia: Theory paper – 50 marks, Short essay, MCQs – 1 hour
Monitoring Log Book and Feedback

| | | | | |
|------------------------------|---------------------------------------|---|---|--------------------------------|
| <i>Theory teaching hours</i> | | | | |
| <i>Subject</i> | <i>Teaching hours</i> | <i>Tutorials/Seminars/Integrated teaching</i> <i>(Hours)</i> | <i>Self directed learning</i> <i>(Hours)</i> | <i>Total</i> <i>(Hours)</i> |
| <i>Radiodiagnosis</i> | <i>10</i> | <i>8</i> | <i>2</i> | <i>20</i> |
| <i>Clinical posting</i> | | | | |
| <i>Radiodiagnosis</i> | <i>2 weeks in 2nd MBBS</i> | | | |

| <i>THEORY</i> | | | | | |
|---------------|----------------|--|---------------------|---------------|-------------------|
| <i>Blocks</i> | <i>Sl. No.</i> | <i>Topic</i> | <i>Competencies</i> | <i>Time</i> | <i>T/L method</i> |
| <i>I</i> | <i>1</i> | <i>Definition of radiation; Interaction of radiation with matter;</i> | <i>RD 1.1</i> | <i>1 hour</i> | <i>Lecture</i> |
| | <i>2</i> | <i>Radiation protection</i> | <i>RD 1.1</i> | <i>1 hour</i> | <i>Lecture</i> |
| | <i>3</i> | <i>Introduction to imaging modalities</i> | <i>RD 1.2</i> | 1 hour | Lecture |
| | <i>4</i> | <i>X ray and related investigations like fluoroscopy & Mammography</i> | <i>RD 1.2</i> | 1 hour | Lecture |
| | <i>5</i> | <i>Ultrasonography and color doppler</i> | <i>RD 1.2</i> | 1 hour | Lecture |

| | | | | | |
|----|---|--|----------------|--------|---------|
| | 6 | <i>Computed Tomography</i> | <i>RD 1.2</i> | 1 hour | Lecture |
| | 7 | <i>Magnetic Resonance Imaging</i> | <i>RD 1.2</i> | 1 hour | Lecture |
| | 8 | <i>Contrast Media and contrast reactions.</i> Management of contrast reactions. | <i>RD 1.2</i> | 1 hour | Lecture |
| | 3 | <i>Imaging modalities in common malignancies</i> | <i>RD 1.8</i> | 1 hour | Lecture |
| | 4 | <i>Interventional Radiology in common clinical conditions</i> | <i>RD 1.9</i> | 1 hour | Lecture |
| | 5 | <i>Pre-procedural Patient preparation for imaging.</i> | <i>RD 1.11</i> | 1 hour | Lecture |
| II | 6 | <i>Effects of radiation on pregnancy and the methods of prevention/minimization of radiation exposure.</i> | <i>RD 1.12</i> | 1 hour | Lecture |
| | 7 | <i>Components of PC & PNDT act and its medico-legal implications</i> | <i>RD 1.13</i> | 1 hour | Lecture |

| | | | | | |
|--|---|---|--|--------|---|
| | 8 | Assessment and feedback (50 marks) | | 1 hour | Short essay, short answers, MCQs |
|--|---|---|--|--------|---|

Self- Directed learning: Duration: 2 hours

Students will be given clinical case scenarios and asked to suggest the imaging modality of choice. Reference books and E material will be suggested to them beforehand. Discussion regarding the imaging modalities including patient preparation will be done.

| Self- Directed learning | | |
|-------------------------|---|---|
| Sl. No. | Topics | Competencies |
| 1 | Emergency Radiology | RD 1.10 |
| 2 | Selection of imaging modalities in various common clinical conditions with advantages and disadvantages | RD1.2, RD1.3, RD1.4,RD1.5, RD1.6, RD1.7, RD1.8. |

Clinical posting – 2 weeks in 2nd MBBS

Most of the Show/Shows how competencies are integrated with other clinical subjects

| Compet Number | Competency | T-L method | Assessment | Integration |
|---------------|--|------------|------------|-------------|
| PE21.12 | Interpret report of Plain radiograph of KUB | DOAP | OSCE | Pediatrics |
| PE21.13 | Enumerate the indications for and Interpret the written report of Ultrasonogram of KUB | DOAP | OSCE | Pediatrics |
| PE23.13 | Interpret a chest radiograph and recognize Cardiomegaly | DOAP | OSCE | Pediatrics |
| PE23.16 | Use the ECHO reports in management of cases | DOAP | OSCE | Pediatrics |
| PE28.17 | Interpret X-ray of the paranasal sinuses | DOAP | OSCE | Pediatrics |

| | | | | |
|---------|--|------|------|-------------------|
| | and mastoid; and /or usewritten report in case of management Interpret CXR in foreign body aspiration and lower respiratory tractinfection, understand the significance of thymic shadow in Pediatric chest X-rays | | | |
| PE30.23 | Interpret the reports of EEG, CT, MRI | DOAP | OSCE | Pediatrics |
| PE34.8 | Interpret a Chest radiograph | DOAP | OSCE | Pediatrics |
| IM3.7 | Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputumgram stain, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing and ABG | DOAP | OSCE | Internal medicine |

Tutorials/Seminars/Integrated teaching:

| Sl No. | Topic | Competencies | Integration with | Duration (Hours) |
|--------|--|---|------------------|------------------|
| 1 | Imaging and Radiological investigations in common ENT disorders | RD 1.3 | ENT | 1 hour |
| 2 | Imaging and Radiological investigations in common disorders of Obstetrics and Gynecology | RD 1.4 | Ob & Gy | 1 hour |
| 3 | Imaging and Radiological investigations in common disorders related to internal medicine | RD 1.5 | Medicine | 1 hour |
| 4 | Imaging and Radiological investigations in common disorders related to surgery | RD1.6 | Surgery | 1 hour |
| 5 | Imaging and Radiological investigations in common disorder related to Pediatrics | RD1.7 | Paediatrics | 1 hour |
| 6 | Imaging and Radiological investigations in common conditions pertaining to common malignancies | RD1.8, RD 1.3, RD1.4, RD1.5, RD1.6, RD1.7 | Oncology | 1 hour |
| 7 | Effects of Radiation on pregnancy and methods of prevention / minimization of radiation exposure | RD1.12, RD1.4 | Ob & Gy | 1 hour |
| 8 | Components of PC & PNDT act and its medicolegal implications | RD1.13, RD1.4 | Forensic PSM | 1 hour |
| | | Total | | 8 |

Radiotherapy – Competencies

| Compet Number | Competency | T-L method | Assessment |
|---------------|------------|------------|------------|
|---------------|------------|------------|------------|

| | | | |
|-------|--|--------------|----------|
| RT1.1 | Describe and discuss definition of radiation, mechanism of action of radiation, types of radiation | Lecture/SDL | MCQs/SAQ |
| RT1.2 | Describe and discuss interaction of radiation with matter & measurement of radiation | Lecture/SDL | MCQs/SAQ |
| RT1.3 | Enumerate, describe and discuss classification and staging of cancer (AJCC, FIGO etc.) | Lecture/SDL | MCQs/SAQ |
| RT2.1 | Describe and discuss radiation protection and personnel monitoring during radiation treatment | Lecture/SDL | MCQs/SAQ |
| RT3.1 | Describe and discuss cell cycle and cell survival curve, principles of radiobiology | Lecture/SDL | MCQs/SAQ |
| RT3.2 | Describe and discuss synergism of radiation and chemotherapy | Lecture/SDL | MCQs/SAQ |
| RT4.1 | Describe and discuss teletherapy machine (Co60/LINAC) | Lecture/SDL | MCQs/SAQ |
| RT4.2 | Enumerate, describe and discuss types of treatment plan, basic workflow of 2D/3DCRT/IMRT/IGRT | Lecture/SDL | MCQs/SAQ |
| RT4.3 | Describe and discuss Brachytherapy machine (remote after loading) | Lecture /SDL | MCQs/SAQ |
| RT4.4 | Describe and discuss different radioactive isotopes and their use in cancer patients | Lecture/SDL | MCQs/SAQ |
| RT4.5 | Describe and discuss role of radiation in management of common malignancies in India (region specific) | Lecture/SDL | MCQs/SAQ |
| RT4.6 | Describe and discuss radiotherapy for benign disease | Lecture/SDL | MCQs/SAQ |
| RT4.7 | Counsel patients regarding acute and late effects of radiation and supportive care | DOAP | OSCE |
| RT4.8 | Describe oncological emergencies and palliative care | Lecture/SDL | MCQs/SAQ |
| RT4.9 | Display empathy in the care of patients with cancer | DOAP | OSCE |

Sri Siddhartha Academy of Higher Education, Tumkur



**Anesthesia and Radiodiagnosis
(General Surgery Allied Subjects)**

LOG BOOK

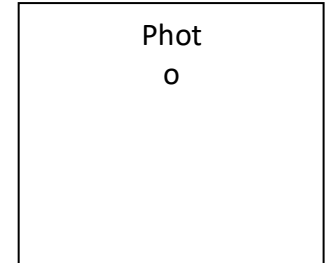
For Undergraduates

As Per

Competency-Based Medical Education Curriculum

As Per Competency-Based Medical Education Curriculum

BASIC PROFORMA OF THE STUDENT



PARTICULARS OF THE STUDENT:

Name of the student :

MBBS Batch :

Father's name :

Mother's name :

Roll No :

SSAHE Reg No :

Address :

Contact number :

Email-ID :

Signature of the student:.....

PREFACE

This booklet has been adopted from the book prepared by an Expert Group constituted by the university and complies with the “**Guidelines for preparing Logbook for Undergraduate Medical Education Program- 2019**” as per **CBME (Competency Based Medical Education) Guidelines- 2019**. It is for use by faculty members, institutions, and Universities to track and record the progress of an undergraduate student through the specified competencies in Anaesthesia and Radiodiagnosis including Radiotherapy. The model logbook can be used as a guideline by Medical Colleges and Universities, and can be adapted / modified as per requirement.

The Competency based curriculum places emphasis on acquisition of defined knowledge, skills, attitudes and values by the learner so as to be a capable physician of first contact in community. This logbook aims to document the acquisition of these milestones during the learner’s stay in the Departments of Anaesthesia and Radiodiagnosis.

This logbook would be a verifiable record of the learner’s progression step-by-step. It has to be maintained as an essential document and filled in a timely manner, to enable progression to the next stage of learning.

Successful documentation and submission of the logbook is a prerequisite for being allowed to take the final summative examination.

Summary of Clinical Case Presentations/Spotters in Anaesthesia

(*Departments may create/continue with a case record book for documentation of cases)

At least 3 cases in a clinical posting

| Serial No. | Date | Patient Name & ID | Diagnosis | Case Presented/ Attended Write P/A | Facilitator's Signature |
|------------|------|-------------------|-----------|---------------------------------------|-------------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

End of posting Assessment

Suggested Methods

15. Viva Voce

16. CA-OSCE / OSCE / OSPE

17. Bedside assessment

18. Communication skill (Counselling)

19. Psychomotor skill- Smear preparation, slide preparation, speculum examination

| Date | Marks obtained | Total Marks | Feedback Student | Feedback Faculty |
|------|----------------|-------------|------------------|------------------|
| | | | | |

SUMMARY OF ATTENDANCE

| Rotation | Phase | Duration (Weeks) | From | To | Total classes held | Number of classes attended | Faculty Signature |
|-----------------|----------|------------------|------|----|--------------------|----------------------------|-------------------|
| 1 st | Phase II | 2 weeks | | | | | |

Anaesthesia
REFLECTIONS: CLINICAL CASE PRESENTATION

(Students should preferably reflect on cases which they themselves have presented):

At least one Reflection per Clinical Posting

Phase II

| | | | | |
|----------------------|--------------|---------|-----------|------|
| Serial Number | Patient Name | Age/Sex | Diagnosis | Date |
| Student Presenter | | | | |
| What Happened? | | | | |
| So What? | | | | |
| What Next? | | | | |
| Signature of Faculty | | | Date | |

Summary of Clinical Case Presentations/Spotters in Radiodiagnosis

(*Departments may create/continue with a case record book for documentation of cases)

At least 3 cases per clinical posting

| Serial No. | Date | Patient Name & ID | Diagnosis | Case Presented/ Attended Write P/A | Facilitator's Signature |
|------------|------|-------------------|-----------|--|-------------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

End of posting Assessment

Suggested Methods

- 1. Viva Voce**
- 2. CA-OSCE / OSCE / OSPE**
- 3. Bedside assessment**
- 4. Communication skill (Counselling)**

5. Psychomotor skill- Smear preparation, slide preparation, speculum examination

| Date | Marks obtained | Total Marks | Feedback Student | Feedback Faculty |
|------|----------------|-------------|------------------|------------------|
| | | | | |

SUMMARY OF ATTENDANCE

| Rotation | Phase | Duration (Weeks) | From | To | Total classes held | Number of classes attended | Faculty Signature |
|-----------------|----------|------------------|------|----|--------------------|----------------------------|-------------------|
| 1 st | Phase II | 2 weeks | | | | | |

Radiodiagnosis

REFLECTIONS: CLINICAL CASE PRESENTATION

(Students should preferably reflect on cases which they themselves have presented):

At least one Reflection per Clinical Posting

Phase II

| Serial Number | Patient Name | Age/Sex | Diagnosis | Date |
|-------------------|--------------|---------|-----------|------|
| Student Presenter | | | | |

What Happened?

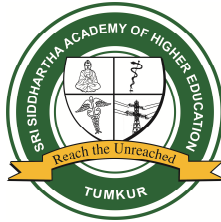
So What?

What Next?

Signature of Faculty

Date

Sri Siddhartha Academy of Higher Education, Tumkur



Orthopedics Curriculum

as per

Competency Based Medical Education

| Serial Number | INDEX <small>Content</small> | | Page Number |
|------------------|--|--|-------------|
| 1 | Goal & Competencies of Undergraduate | | 4 |
| 2 | Period of training during MBBS | | 6 |
| 3 | Minimum teaching hours | | 7 |
| 4 | Competencies & Specific learning Objectives aligned with Teaching learning methods & Assessment methods | | 8 |
| 5 | Time table & list of Competencies to cover in each phase of MBBS | | 52 |
| 6 | Goals & Competencies to cover in Internship | | 64 |
| 7 | Period of training in Internship | | 67 |
| 8 | Certifiable skills in Internship | | 68 |
| 9 | Assessment in Orthopaedics | | 69 |
| Annexures | A | Teaching learning methods | 72 |
| | B | Blue Print & Assessment methods – Theory | 73 |
| | C | Blue Print & Assessment methods – Practical | 75 |
| | D | Integration topics | 76 |
| | E | Self Directed Learning- Examples | 110 |
| | F | Topics for Electives | 114 |
| | G | Clinical Postings | 115 |
| | H | Log Book Format | 120 |
| | I | Model Question Papers | 121 |
| | J | Recommended Text Books | 123 |

Goals and Objectives for the undergraduate MBBS curriculum in Orthopaedics(As per Graduate Medical Education Regulations (GMR), 1997 Part II)

GOAL

The aim of teaching the undergraduate student in Orthopaedics (including Trauma) and Physical Medicine and Rehabilitation is to impart such knowledge and skills that may enable him to diagnose and treat common ailments. He/she shall have ability to diagnose and suspect presence of fracture, dislocation, acute osteomyelitis, acute poliomyelitis and common congenital deformities such as Congenital Talipes Equino Varus (CTEV) and Developmental Dysplasia of Hip (DDH).

(a) COMPETENCIES: The student must demonstrate:

1. Ability to recognize and assess bone injuries, dislocation and poly-trauma and provide first contact care prior to appropriatereferral,
2. Knowledge of the medico-legal aspects of trauma,
3. Ability to recognize and manage common infections of bone and joints in the primary care setting,
4. Recognize common congenital, metabolic, neoplastic, degenerative and inflammatory bone diseases and refer appropriately,
5. Ability to perform simple orthopaedic techniques as applicable to a primary care setting,
6. Ability to recommend rehabilitative services for common orthopaedic problems across all ages.

(b) INTEGRATON: The teaching should be aligned and integrated horizontally and vertically in order to allow the student to understand

the structural basis of orthopaedic problems, their management and correlation with function, rehabilitation and quality of life.

| List of Topics and Competencies in Phase II MBBS, Phase III Part 1 and Part 2 MBBS | | | |
|---|---|---------------------|---|
| Sl.No | Topics | Competencies | Procedures requiring certification |
| 1 | Skeletal trauma, poly trauma | 06 | Ni I |
| 2 | Fractures | 16 | Ni I |
| 3 | Musculoskeletal Infection | 03 | Ni I |
| 4 | Skeletal Tuberculosis | 01 | Ni I |
| 5 | Rheumatoid Arthritis and associated inflammatory disorders | 01 | Ni I |
| 6 | Degenerative disorders | 01 | Ni I |
| 7 | Metabolic bone disorders | 01 | Ni I |
| 8 | Poliomyelitis | 01 | Ni I |
| 9 | Cerebral Palsy | 01 | Ni I |
| 10 | Bone Tumors | 01 | Ni I |
| 11 | Peripheral nerve injuries | 01 | Ni I |
| 12 | Congenital lesions | 01 | Ni I |
| 13 | Procedural Skills | 02 | Ni I |
| 14 | Counselling Skills | 03 | Ni I |

| | | | |
|--|--------------|-----------|-----------------|
| | Total | 39 | Ni I |
|--|--------------|-----------|-----------------|

| Period of Training in Phase II and Phase III | | | | |
|---|----------|------------------|------------------|----------|
| | Phase II | Phase III Part 1 | Phase III Part 2 | Total |
| Theory | NONE | 40 hours | 50 hours | 90 hours |
| Clinicals | 2 weeks | 4 weeks | 2 weeks | 8 weeks |

| 2 Minimum Teaching Hours in MBBS Phase II, Phase III Part 1 and Part | | | | |
|---|-------------------------|---|---|----------------------|
| Term | Lectures (hours) | Small group discussions(SGD) (Tutorials / Seminars) /Integrated learning (hours) | Self Directed Learning (SDL) (hours) | Total (hours) |
| Phase II | NONE | NONE | NONE | |
| Phase III Part 1 | 15 | 20 | 05 | 40 |
| Phase III Part 2 | 20 | 25 | 05 | 50* |
| Total | | | | 90 |
| <i>* 25% of allotted time shall be utilized for integrated learning</i> | | | | |
| | | | | |
| AETCOM (OR14.1, 14.2, 14.3) | | | | |
| Phase II | | | | |
| Phase III Part 1 | | | | |
| Phase III Part 2 | | 2 hours (OR 14.1, 14.2, 14.3) | | |
| Total | | | | |

Specific Learning Objectives

| 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 | Vertical integration | Horizontal integration |
|---|---|-------------------|----------------------------|---------------|---|--|-------------------------|---------------------------------------|
| TOPIC : SKELETAL TRAUMA, Poly trauma | | | | | | | | |
| OR1.1 | Describe and discuss the Principles of pre-hospital care and Causality management of a trauma victim including principles of triage. | K | K/KH | Y | Lecture with video, Small group discussion | Written/ Viva voce/OSCE/ Simulation | | GENERAL SURGERY ANESTHESIOLOGY |
| Specific learning objectives: | | | | | | | | |
| 1.1.1 | Discuss prehospital trauma care in a polytrauma patient. | | | | | | | |
| 1.1.2 | Enumerate interventions that may be performed by emergency personnel prior to transport to hospital in a polytrauma patient. | | | | | | | |
| 1.1.3 | Differentiate polytrauma and multiple fracture patients. | | | | | | | |
| 1.1.4 | Enumerate the steps in primary survey of a polytrauma patient in Emergency Department (ED). | | | | | | | |
| 1.1.5 | Discuss BLS and ATLS. | | | | | | | |
| 1.1.6 | Discuss secondary and tertiary survey. | | | | | | | |
| 1.1.7 | Discuss the concept of “GOLDEN HOUR” | | | | | | | |
| 1.1.8 | Discuss the principles of “TRIAGE” | | | | | | | |

| | | | | | | | | |
|--------|--|--|--|--|--|--|--|---|
| 1.1.9 | List the diagnostic tests done in poly trauma patient in ED. | | | | | | | |
| 1.1.10 | Discuss the management of polytrauma patient inED. | | | | | | | 9 |

| OR1.2 | Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock | K | K/KH | Y | Lecture | Written/ Viva voce/OSCE/ Simulation | | GERERAL SURGERY |
|--------------------------------------|--|----------|-------------|----------|----------------|--|--|------------------------|
| Specific learning objectives: | | | | | | | | |
| 1.2.1 | Define shock. | | | | | | | |
| 1.2.2 | Enumerate the various causes of shock. | | | | | | | |
| 1.2.3 | Describe the pathophysiology as a basis for signs and symptoms associated with progression through various stages of shock. | | | | | | | |
| 1.2.4 | Classify hemorrhagic shock. | | | | | | | |
| 1.2.5 | Discuss the investigative work up in patients with various causes of shock. | | | | | | | |
| 1.2.6 | Describe the principles of management of hemorrhagic shock in a poly trauma patient in emergency department. | | | | | | | |
| 1.2.7 | Discuss the role of pharmacotherapy in various shock states. | | | | | | | |
| 1.2.8 | Discuss massive blood transfusion protocol in hemorrhagic shock. | | | | | | | |
| 1.2.9 | Discuss the ideal fluid resuscitation in shock. | | | | | | | |

| | | | | | | | | |
|--------------------------------------|--|----------|-------------|----------|--|---------------------|--|------------------------|
| OR1.3 | Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries | K | K/KH | Y | Lecture, Small group discussion | Written/OSCE | | GENERAL SURGERY |
| Specific learning objectives: | | | | | | | | |
| 1.3.1 | Enumerate the tissues involved in soft tissue injuries(STI) | | | | | | | |
| 1.3.2 | Classify soft tissue injuries | | | | | | | |
| 1.3.3 | Discuss the common causes of soft tissue injuries | | | | | | | |
| 1.3.4 | Discuss the clinical features of soft tissue injuries | | | | | | | |
| 1.3.5 | Discuss the treatment of sprains depending on grading | | | | | | | |
| 1.3.6 | Discuss the common investigations to diagnose soft tissue injuries | | | | | | | |
| 1.3.7 | List common ligaments which are injured. Knee Joint/ Ankle | | | | | | | |
| 1.3.8 | Enumerate the sports which puts athletes in risk for soft tissue injuries with examples. | | | | | | | |
| 1.3.9 | List common causes for overuse soft tissue injuries | | | | | | | |
| 1.3.10 | Discuss the principles of management of soft tissue injuries. | | | | | | | |

| | | | | | | | | |
|--------------------------------------|---|----------|-------------|----------|--|---------------------------------------|--|------------------------|
| OR1.4 | Describe and discuss the Principles of management of soft tissue injuries. | K | K/KH | Y | Lecture, small group discussion | Written/ Assessment/ Vivavoice | | GENERAL SURGERY |
| Specific learning objectives: | | | | | | | | |
| 1.4.1 | Discuss the principles of management of soft tissue injuries | | | | | | | |
| 1.4.2 | Describe “RICE” protocol in soft tissue injuries. | | | | | | | |
| 1.4.3 | Discuss “NO HARM” protocol in soft tissue injuries. | | | | | | | |
| 1.4.4 | Discuss the management of chronic overuse soft tissue injuries (tendinitis and bursitis) | | | | | | | |
| 1.4.5 | Discuss how will you give prevention tips on avoiding soft tissue injuries for your non-medical friends. | | | | | | | |

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| OR1.5 | Describe and discuss the aetiopathogenesis , clinical features, investigations, and principles of management of dislocation of major joints, shoulder, knee ,hip. | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic | Written/ Viva voce/OSCE/ Simulation | | |
| Specific learning objectives: | | | | | | | | |
| 1.5.1 | Define dislocation and subluxation. | | | | | | | |
| 1.5.2 | Discuss etiology and pathoanatomy of shoulder dislocation. | | | | | | | |
| 1.5.3 | Classify shoulder dislocations. | | | | | | | |
| 1.5.4 | Discuss clinical features of anterior and posterior shoulder dislocation. | | | | | | | |
| 1.5.5 | Discuss relevant investigations in shoulder dislocations. | | | | | | | |
| 1.5.6 | Define recurrent shoulder dislocations. | | | | | | | |
| 1.5.7 | Enumerate the essential lesions of recurrent anterior dislocation. | | | | | | | |
| 1.5.8 | Discuss the methods of closed reduction of shoulder dislocations. | | | | | | | |
| 1.5.9 | Discuss the post reduction protocol following closed reduction of anterior dislocation of shoulder. | | | | | | | |
| 1.5.10 | Enumerate the complications of shoulder dislocations. | | | | | | | |

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| 1.5.1 1 | Describe the mechanism of knee dislocations. | | | | | | | |
| 1.5.1 2 | Classify knee dislocations. | | | | | | | |
| 1.5.1 3 | Discuss associated injuries with knee dislocation. | | | | | | | |
| 1.5.1 4 | Discuss relevant investigation in knee dislocation. | | | | | | | |
| 1.5.1 5 | Discuss the management of knee dislocation. | | | | | | | |
| 1.5.1 6 | Enumerate the complications associated with kneedislocations. | | | | | | | |
| 1.5.1 7 | Classify hip dislocations. | | | | | | | |
| 1.5.1 8 | Explain the mechanism and clinical features ofanterior dislocation of hip. | | | | | | | |
| 1.5.1 9 | Describe the mechanism and clinical features ofposterior dislocation of hip. | | | | | | | |
| 1.5.2 0 | List the investigation in hip dislocation. | | | | | | | |
| 1.5.2 1 | Discuss the management of anterior and posterior dislocation. | | | | | | | |
| 1.5.2 2 | Describe the post reduction protocol of hipdislocation. | | | | | | | |
| 1.5.2 3 | Enumerate the complication of hip dislocation. | | | | | | | |

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| OR1.6 | Participate as a member in the team for closed reduction of shoulder dislocation /hip dislocation /knee dislocation | K | K/KH / SH | Y | Simulation, DOAPsession | OSCE/ Simulation | | |
| Specific learning objectives: | | | | | | | | |
| 1.6.1 | Discuss the principles of closed reduction of a dislocated joint. | | | | | | | |
| 1.6.2 | Describe the common closed reduction techniquesof shoulder dislocation. | | | | | | | |
| 1.6.3 | Describe the common closed reduction techniquesof hip dislocation. | | | | | | | |
| 1.6.4 | Observe, assist in closed reduction of shoulder dislocation in skill lab as an assistant using variousmethods. | | | | | | | |
| 1.6.5 | Observe , assist in closed reduction of hip dislocation in skill lab as an assistant using variousmethods. | | | | | | | |

| TOPIC : FRACTURES | | | | | | | | |
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| OR2.1 | Describe and discuss the mechanism of Injury,clinical features, investigations and plan management of fracture of clavicle. | K | K/KH | Y | Lecture, Small group discussion,Bed side clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.1.1 | Describe the anatomy of clavicle and acromio-clavicular joint. | | | | | | | |
| 2.1.2 | Discuss the mechanism of injury of clavicle fracture. | | | | | | | |
| 2.1.3 | Discuss the clinical features of clavicle fracture. | | | | | | | |
| 2.1.4 | Classify clavicle fractures. | | | | | | | |
| 2.1.5 | Enumerate associated injuries in fracture clavicle patient. | | | | | | | |
| 2.1.6 | Discuss the principles of management of clavicle fractures. | | | | | | | |
| 2.1.7 | List the surgical indications for clavicle fractures. | | | | | | | |
| 2.1.8 | Enumerate complications in clavicle fractures. | | | | | | | |

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| OR2.2 | Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fractures of proximal humerus | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic | Written/ Vivavoce/ OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.2.1 | Describe the anatomy of proximal humerus. | | | | | | | |
| 2.2.2 | Discuss the blood supply and its importance. | | | | | | | |
| 2.2.3 | Explain the mechanism of injury. | | | | | | | |
| 2.2.4 | Discuss the clinical features and relevant investigations. | | | | | | | |
| 2.2.5 | Classify proximal humerus fractures. | | | | | | | |
| 2.2.6 | Discuss the principles of management of proximal humeral fractures. | | | | | | | |
| 2.2.7 | List the surgical indications of proximal humerus fractures. | | | | | | | |
| 2.2.8 | Enumerate the complications of proximal humerus fractures. | | | | | | | |

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| OR2. 3 | Select, prescribe and communicate appropriate medications for relief of joint pain | K | K/K H/S H | Y | Lecture, Small group discussion, Bed side clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.3.1 | Discuss the pathophysiology of joint pain. | | | | | | | |
| 2.3.2 | Enumerate the causes of joint pain . | | | | | | | |
| 2.3.3 | How do you evaluate join pain. | | | | | | | |
| 2.3.4 | Discuss WHO analgesics ladder | | | | | | | |
| 2.3.5 | Describe the role of opioid analgesics used in jointpains. | | | | | | | |
| 2.3.6 | Enumerate NSAIDS group of analgesics used in relief of joint pain. | | | | | | | |
| 2.3.7 | Mention parental analgesics used in relief of joinpain. | | | | | | | |
| 2.3.8 | Discuss the side effects of chronic use of NASIDS in aosteoarthritic joint pain. | | | | | | | |
| 2.3.9 | Name some topical analgesics. | | | | | | | |
| 2.3.1 0 | Discuss the role of intra-articular steroid injections inosteoarthritis. | | | | | | | |
| 2.3.1 1 | Discuss the role of viscosupplementation.inosteoarthritis. | | | | | | | |

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| OR2.4 | Describe and discuss the mechanism of injury, clinical features,investigations and principles of management of fracture of shaft of humerus and supracondylar fracture humerus with emphasis on neurovascular deficit | K | K/KH | Y | Lecture, Small group discussion,Bed side clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.4.1 | Discuss the mechanism of injury and pathoanatomy of fractureshaft of humerus. | | | | | | | |
| 2.4.2 | Describe the classification and various patterns of fracture shaftof humerus. | | | | | | | |
| 2.4.3 | Define Holstein-Lewis fracture. | | | | | | | |
| 2.4.4 | Discuss the principles of management of fracture shaft of humerus. | | | | | | | |
| 2.4.5 | Enumerate various methods of conservative management offracture shaft of humerus. | | | | | | | |
| 2.4.6 | Discuss various surgical methods of fixation of fracture shaft ofhumerus | | | | | | | |
| 2.4.7 | Discuss the management of humerus fracture with radial nerveInjury. | | | | | | | |
| 2.4.8 | Define supracondylar fracture of humerus. | | | | | | | |
| 2.4.9 | Differentiate supracondylar and intercondylar humerus fractures. | | | | | | | |
| 2.4.10 | Classify supracondylar fracture in children. | | | | | | | |
| 2.4.11 | Discuss the radiological findings in paediatric supracondylarfracture humerus. | | | | | | | |
| 2.4.12 | Discuss the management of paediatric supracondylar fracturehumerus. | | | | | | | 19 |

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| 2.4.1 3 | Discuss the management of paediatric supracondylar fracture with absent radial pulse. | | | | | | | |
| 2.4.1 4 | Define compartment syndrome. | | | | | | | |
| 2.4.1 5 | Discuss the investigations and management of compartment syndrome of forearm. | | | | | | | |
| 2.4.1 6 | Enumerate the various complications of paediatric supracondylar fracture humerus | | | | | | | |

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| OR2.5 | Describe and discuss the aetiopathogenesis, clinical features, mechanism of injury, investigation & principles of management of fractures of both bones forearm and Galeazzi and Monteggia injury | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.5.1 | Describe the anatomy of radius and ulna. | | | | | | | |
| 2.5.2 | Discuss the mechanism of injury of fracture both bones of forearm. | | | | | | | |
| 2.5.3 | Discuss clinical features and investigations in fracture both bones of forearm. | | | | | | | |
| 2.5.4 | Define greenstick fracture. | | | | | | | |
| 2.5.5 | Discuss the principles of management of forearm fracture in children | | | | | | | |
| 2.5.6 | Discuss the principles of management of forearm fracture in adults | | | | | | | |
| 2.5.7 | Define Galeazzi fracture. | | | | | | | |
| 2.5.8 | Describe the mechanism of injury, pathoanatomy and clinical features in Galeazzi fracture. | | | | | | | |
| 2.5.9 | Classify Galeazzi fracture. | | | | | | | |
| 2.5.10 | Discuss the management of Galeazzi fracture | | | | | | | |

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| 2.5.1 1 | Define Monteggia fracture. | | | | | | | |
| 2.5.1 2 | Describe the mechanism of injury, pathoanatomy and clinical features of Monteggia fracture. | | | | | | | |
| 2.5.1 3 | Classify Monteggia fracture. | | | | | | | |
| 2.5.1 4 | Discuss the management of Monteggia fracture. | | | | | | | |
| 2.5.1 5 | Enumerate various complications of forearm fractures. | | | | | | | |

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| OR2.6 | Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of distal radius | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.6.1 | Define Colle's fracture. | | | | | | | |
| 2.6.2 | Discuss the mechanism of injury, pathoanatomy and radiological findings in Colle's fracture. | | | | | | | |
| 2.6.3 | Define Smith's fracture. | | | | | | | |
| 2.6.4 | Define Barton's fracture. | | | | | | | |
| 2.6.5 | Describe the criteria for conservative management of fractures of distal radius. | | | | | | | |
| 2.6.6 | Discuss the closed reduction technique of Colle's fracture. | | | | | | | |
| 2.6.7 | Discuss the surgical management of fractures of distal radius. | | | | | | | |
| 2.6.8 | Describe the complications and its management of fractures of distal radius. | | | | | | | |

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| OR2. 7 | Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of pelvic injuries with emphasis on hemodynamic instability | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.7.1 | Discuss the anatomy of pelvis. | | | | | | | |
| 2.7.2 | Describe the mechanism of injury, pathoanatomy and clinical features of pelvic fractures. | | | | | | | |
| 2.7.3 | Classify pelvic fractures. | | | | | | | |
| 2.7.4 | Discuss the investigations in pelvic fractures. | | | | | | | |
| 2.7.5 | Describe the principles of management of pelvic fractures. | | | | | | | |
| 2.7.6 | How will you assess and manage a patient with pelvic fracture with haemodynamic instability. | | | | | | | |

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| OR2.8 | Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of spine injuries with emphasis on mobilization of the patient | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives | | | | | | | | |
| 2.8.1 | Describe the anatomy of spine. | | | | | | | |
| 2.8.2 | Discuss the mechanism of injury, clinical features and investigations of a patient with spine injury. | | | | | | | |
| 2.8.3 | Differentiate stable and unstable spine fractures. | | | | | | | |
| 2.8.4 | Classify spine fractures. | | | | | | | |
| 2.8.5 | Define Hangman's fracture. | | | | | | | |
| 2.8.6 | Define whiplash injury. | | | | | | | |
| 2.8.7 | Discuss the principles of management of spine fractures. | | | | | | | |
| 2.8.8 | Discuss the surgical management of spine fracture with spinal cord injury. | | | | | | | |
| 2.8.9 | Discuss how will you rehabilitate quadriplegic and paraplegic patients following spine fractures. | | | | | | | |

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| OR2.10 | Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of proximal femur. | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.10.1 | Discuss the blood supply of femoral head. | | | | | | | |
| 2.10.2 | Define and classify Intracapsular fractures of neck of femur. | | | | | | | |
| 2.10.3 | Discuss the clinical features and investigations of intracapsular fracture neck of femur | | | | | | | |
| 2.10.4 | Discuss the management of intracapsular fracture neck of femur in all age groups. | | | | | | | |
| 2.10.5 | Enumerate complications of fracture neck of femur and discuss its management. | | | | | | | |
| 2.10.6 | Define extracapsular fracture neck of femur | | | | | | | |
| 2.10.7 | Classify extracapsular fracture neck of femur. | | | | | | | |
| 2.10.8 | Describe the clinical features, investigations and management of extracapsular fracture neck of femur. | | | | | | | |
| 2.10.9 | Discuss the management of intertrochanteric fracture. | | | | | | | |

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| OR2.11 | Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of (a) Fracture patella (b) Fracture distal femur (c) Fracture proximal tibia with special focus on neurovascular injury and compartment syndrome | K | K/KH/SH | Y | Lecture, Small group discussion, Bedside clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.11.1 | Discuss the anatomy of extensor mechanism of knee. | | | | | | | |
| 2.11.2 | Discuss mechanism of injury and clinical features of patella fracture. | | | | | | | |
| 2.11.3 | Interpret radiograph of knee with patella fracture patterns. | | | | | | | |
| 2.11.4 | Discuss the general principles of management of fracture patella. | | | | | | | |
| 2.11.5 | Discuss the mechanism of injury in supracondylar and intercondylar fracture femur. | | | | | | | |
| 2.11.6 | Discuss general principles of management of distal femur fractures. | | | | | | | |
| 2.11.7 | Classify proximal tibia fractures | | | | | | | |
| 2.11.8 | Discuss the general principles of management of proximal tibia fractures. | | | | | | | |
| 2.11.9 | Enumerate the common complications of proximal tibia fracture. | | | | | | | |

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| 2.11.10 | Discuss the etiopathogenesis, clinical features, investigation and management of compartmentsyndrome with proximal tibia fracture. | | | | | | | |
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| OR2.12 | Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Fracture shaft of femur in all age groups and the recognition and management of fat embolism as a complication | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.12.1 | Discuss the etiology of fracture shaft of femur | | | | | | | |
| 2.12.2 | Discuss the clinical features and investigations in fracture shaft of femur | | | | | | | |
| 2.12.3 | Discuss the management of fracture shaft of femur in children. | | | | | | | |
| 2.12.4 | Discuss the management of fracture shaft of femur in adults | | | | | | | |
| 2.12.5 | Enumerate the complications of fracture shaft of femur | | | | | | | |
| 2.12.6 | Define fat embolism. | | | | | | | |
| 2.12.7 | Discuss the clinical features and management of fat embolism. | | | | | | | |
| 2.12.8 | Explain the preventive steps to avoid fat embolism in long bone fractures. | | | | | | | |

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| OR2.13 | Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of: a) Fracture both bones leg b) Calcaneus c) Small bones of foot | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.13.1 | Discuss the mechanism and clinical features of fracture both bones of leg | | | | | | | |
| 2.13.2 | Discuss the conservative and surgical management of fracture both bones of leg | | | | | | | |
| 2.13.3 | Discuss the management of isolated fibula fracture | | | | | | | |
| 2.13.4 | Discuss the fractures caused due to fall from height | | | | | | | |
| 2.13.5 | Classify calcaneal fractures. | | | | | | | |
| 2.13.6 | Discuss the radiological findings and management of calcaneal fractures. | | | | | | | |
| 2.13.7 | What is Aviator's fracture. | | | | | | | |
| 2.13.8 | Define Jones fracture | | | | | | | |

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| OR2.14 | Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of ankle fractures | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.14.1 | Discuss the mechanism of injury of ankle fractures. | | | | | | | |
| 2.14.2 | Classify ankle fractures | | | | | | | |
| 2.14.3 | Discuss the principles of management of ankle fractures | | | | | | | |
| 2.14.4 | Define Cotton's fracture. | | | | | | | |
| 2.14.5 | Mention the complications of ankle fractures. | | | | | | | |

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| OR2.15 | Plan and interpret the investigations to diagnose complications of fractures like malunion, non-union, infection, compartment syndrome | K | K/K H | Y | Lecture, Small groupdiscussion, Bedside clinic | Written/ Vivavoce/ OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.15.1 | Enumerate immediate, early and late complications of fractures. | | | | | | | |
| 2.15.2 | Define malunion | | | | | | | |
| 2.15.3 | Define nonunion. | | | | | | | |
| 2.15.4 | Define delayed union. | | | | | | | |
| 2.15.5 | Discuss the factors affecting fracture healing | | | | | | | |
| 2.15.6 | Classify nonunion of long bones. | | | | | | | |
| 2.15.7 | List the radiological investigations in nonunion. | | | | | | | |
| 2.15.8 | Discuss the investigation to rule out infections following fractures. | | | | | | | |
| 2.15.9 | Discuss the management of nonunion. | | | | | | | |
| 2.15.10 | Discuss the management of malunion. | | | | | | | |
| 2.15.11 | Define compartment syndrome. | | | | | | | |
| 2.15.12 | Discuss the clinical features of compartment syndrome. | | | | | | | |
| 2.15.13 | Discuss the investigations to rule out compartment syndrome. | | | | | | | |
| 2.15.14 | Discuss the indications for fasciotomy. | | | | | | | |
| 2.15.15 | Discuss the sequelae of compartment syndrome. | | | | | | | |

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| OR2.16 | Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of open fractures with focus on secondary infection prevention and management | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic | Written/ Viva voce/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 2.16.1 | Define open fractures. | | | | | | | |
| 2.16.2 | Classify open fractures. | | | | | | | |
| 2.16.3 | Discuss the etiology in open fractures. | | | | | | | |
| 2.16.4 | Discuss the management of open fractures. | | | | | | | |
| 2.16.5 | Describe antibiotic prophylaxis in open fractures. | | | | | | | |
| 2.16.6 | Discuss wound debridement and role of irrigation in open fractures. | | | | | | | |
| 2.16.7 | Enumerate the complications of open fractures. | | | | | | | |
| 2.16.8 | Discuss the prophylaxis against tetanus and gas gangrene. | | | | | | | |

| TOPIC: Musculoskeletal Infection | | | | | | | | |
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| OR3.1 | Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of bone and joint infections. a) Acute Osteomyelitis. b) Subacute osteomyelitis. c) Acute Suppurative arthritis. d) Septic arthritis & HIV infection e) Spirochetal infection | K | K/KH | Y | Lecture, small group discussion, video assisted lecture | Written/ Viva voice/OSCE | Pathology, Microbiology | General Surgery |
| Specific learning objectives: | | | | | | | | |
| 3.1.1 | Define osteomyelitis. | | | | | | | |
| 3.1.2 | Classify osteomyelitis. | | | | | | | |
| 3.1.3 | Discuss the epidemiological aspects of osteomyelitis. | | | | | | | |
| 3.1.4 | Define septic arthritis. | | | | | | | |
| 3.1.5 | List the common organisms causing acute osteomyelitis. | | | | | | | |
| 3.1.6 | Discuss the routes of infection in osteomyelitis. | | | | | | | |
| 3.1.7 | Discuss the risk factors associated with osteomyelitis. | | | | | | | |
| 3.1.8 | Describe the clinical features and investigations in acute, subacute and chronic osteomyelitis. | | | | | | | |
| 3.1.9 | Enumerate types of sequestrum. | | | | | | | |
| 3.1.10 | Describe the principles of management of acute, subacute and chronic osteomyelitis. | | | | | | | |

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| 3.1.11 | Define saucerization. | | | | | | | 33 |
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| 3.1.1 2 | Enumerate the complications of chronicosteomyelitis. | | | | | | | |
| 3.1.1 3 | Describe the clinical features, investigations and management of septic arthritis. | | | | | | | |
| 3.1.1 4 | Discuss the characteristics and management of septicarthritis in HIV patients. | | | | | | | |

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| OR3.2 | Participate as a member in team for aspiration of joints under supervision. | K | K/KH/S H | Y | Small group, Discussion. DOAP session | Viva voice/ OSCE/Skill assessment. | | |
| Specific learning objectives: | | | | | | | | |
| 3.2.1 | Define arthrocentesis. | | | | | | | |
| 3.2.2 | Discuss indications for arthrocentesis. | | | | | | | |
| 3.2.3 | Describe the informed consent procedure before aspirations. | | | | | | | |
| 3.2.4 | Perform the procedure of arthrocentesis of knee on a mannequin under supervision. | | | | | | | |
| 3.2.5 | Enumerate the complications of arthrocentesis. | | | | | | | |

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| OR3.3 | Participate as a member in team for procedure like drainage of abscess , sequestrectomy/ saucerization and arthrotomy. | K | K/KH/SH | Y | DOAP session, Video demonstration | Viva voice/OSCE/Skills assessment. | | General Surgery |
| Specific learning objectives: | | | | | | | | |
| 3.3.1 | Define abscess. | | | | | | | |
| 3.3.2 | Discuss the indications and contra indications of incision and drainage (I&D). | | | | | | | |
| 3.3.3 | Describe the procedure of I&D including appropriate anesthesia. | | | | | | | |
| 3.3.4 | Discuss the importance of aftercare and patient education about abscess and I&D. | | | | | | | |
| 3.3.5 | Define arthrotomy. | | | | | | | |
| 3.3.6 | Discuss the indications of arthrotomy. | | | | | | | |
| 3.3.7 | Discuss the procedure of arthrotomy of knee joint. | | | | | | | |
| 3.3.8 | Define sequestrum. | | | | | | | |
| 3.3.9 | Discuss the types of sequestrum. | | | | | | | |
| 3.3.10 | Enumerate the operative methods in chronic osteomyelitis | | | | | | | |
| 3.3.11 | Differentiate involucrum from sequestrum. | | | | | | | |
| 3.3.12 | Discuss the procedure of saucerization. | | | | | | | |
| 3.3.13 | Mention the prerequisites before doing sequestrectomy. | | | | | | | |

Topic : Skeletal Tuberculosis

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|-------------------------------|--|---|------|---|--|--------------------------|-----------|-----------------|
| OR4.1 | Describe and discuss the clinical features , investigation and principles of management oftuberculosis affecting major joints (hip, knee) including cold abscess and caries spine. | K | K/KH | Y | Lecture, Small group discussion,Case discussion. | Written /Viva voice/OSCE | Pathology | General surgery |
| Specific learning objectives: | | | | | | | | |
| 4.1.1 | Discuss the epidemiology of skeletal tuberculosis. | | | | | | | |
| 4.1.2 | Describe the pathogenesis, clinical features andradiological findings in tuberculosis of hip. | | | | | | | |
| 4.1.3 | Enumerate the stages of TB hip. | | | | | | | |
| 4.1.4 | Discuss the medical and surgical management of TBhip. | | | | | | | |
| 4.1.5 | Discuss triple deformity of knee. | | | | | | | |
| 4.1.6 | Discuss the management of TB knee. | | | | | | | |
| 4.1.7 | Describe the pathogenesis, clinical features andinvestigations of TB spine. | | | | | | | |
| 4.1.8 | Discuss the general principles of management of TBspine. | | | | | | | |
| 4.1.9 | Define Pott's paraplegia. | | | | | | | |
| 4.1.10 | Enumerate the causes of Pott's paraplegia. | | | | | | | |
| 4.1.11 | Define cold abscess. List the locations where cold abscess are seen. | | | | | | | |
| 4.1.12 | Discuss the mechanism of action, dose ,regimen andside effects of anti-tubercular drugs. | | | | | | | |

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| 4.1.13 | Discuss psoas abscess and its management. | | | | | | | |
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Topic: Rheumatoid Arthritis and associated inflammatory disorders.

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| OR5.1 | Describe and discuss the aetiopathogenesis , clinical features, investigations and principles of management of various inflammatory disorders of joints. | K | K/KH | Y | Lecture , Small group discussion, Bedside clinic | Written/Viva voice/OSCE | | General medicine. |
| Specific learning objectives: | | | | | | | | |
| 5.1.1 | Define poly arthritis. | | | | | | | |
| 5.1.2 | Enumerate the causes of poly arthritic joint pain | | | | | | | |
| 5.1.3 | Enumerate various causes of inflammatory joint diseases. | | | | | | | |
| 5.1.4 | Describe the etiopathogenesis, clinical features and investigations of rheumatoid arthritis. | | | | | | | |
| 5.1.5 | Discuss the articular deformities in rheumatoid arthritis | | | | | | | |
| 5.1.6 | Discuss the extra articular manifestations in rheumatoid arthritis | | | | | | | |
| 5.1.7 | Describe the medical management of rheumatoid arthritis. | | | | | | | |
| 5.1.8 | Describe the mechanism of action, dosage and side effects of DMARDs. | | | | | | | |
| 5.1.9 | Enumerate various causes of seronegative arthritis. | | | | | | | |
| 5.1.10 | Discuss ankylosing spondylitis | | | | | | | |
| 5.1.11 | Describe clinical features, investigations and management of crystalline arthropathies | | | | | | | |

| Topic: Degenerative disorders | | | | | | | | |
|-------------------------------|---|---|------|---|---|-------------------------|--|--|
| OR6.1 | Describe and discuss the clinical features, investigations and principles of management of degenerative condition of spine (cervical Spondylosis, Lumbar Spondylosis, IVDP) | K | K/KH | Y | Lecture , Small group discussion, Case discussion | Written/Viva voice/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 6.1.1 | Define degenerative disc disease. | | | | | | | |
| 6.1.2 | Discuss the etiopathogenesis and clinical features of intervertebral disc prolapse (IVDP). | | | | | | | |
| 6.1.3 | Discuss the general principles of management of IVDP. | | | | | | | |
| 6.1.4 | Discuss the differential diagnosis of radicular pain of lower limbs. | | | | | | | |
| 6.1.5 | Discuss the differential diagnosis of Low back pain. | | | | | | | |
| 6.1.6 | Define cervical spondylosis. | | | | | | | |
| 6.1.7 | Discuss the clinical features, radiological findings and management of cervical spondylosis. | | | | | | | |
| 6.1.8 | Define lumbar spondylosis. | | | | | | | |
| 6.1.9 | Discuss the clinical features, radiological findings and management of lumbar spondylosis | | | | | | | |
| 6.1.10 | Define spondylolisthesis. | | | | | | | |

| Topic : Metabolic bone disorders | | | | | | | | |
|----------------------------------|--|---|------|---|--|-------------------------|--|--|
| OR7.1 | Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of metabolic bone disorders in particular osteoporosis, osteomalacia, rickets, Paget's disease. | K | K/KH | Y | Lecture, Small group discussion, Case discussion | Written/Viva voice/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 7.1.1 | Define rickets and osteomalacia. | | | | | | | |
| 7.1.2 | Discuss the etiopathogenesis, clinical features and investigations of rickets. | | | | | | | |
| 7.1.3 | Discuss the pathophysiology, clinical features and investigations of osteomalacia. | | | | | | | |
| 7.1.4 | Discuss the medical management of rickets and osteomalacia. | | | | | | | |
| 7.1.5 | Discuss the deformities in rickets and its surgical management. | | | | | | | |
| 7.1.6 | Define osteoporosis. | | | | | | | |
| 7.1.7 | Discuss the etiology and risk factors for osteoporosis. | | | | | | | |
| 7.1.8 | Classify osteoporosis. | | | | | | | |
| 7.1.9 | Describe the clinical features and investigations in osteoporosis. | | | | | | | |
| 7.1.10 | Discuss the general principles of management of osteoporosis. | | | | | | | |
| 7.1.11 | Discuss DEXA scan. | | | | | | | |

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| 7.1.12 | Enumerate the common osteoporotic fractures. | | | | | | | |
| 7.1.13 | Discuss the lifestyle measures to prevent osteoporosis and its complications. | | | | | | | |
| 7.1.14 | Define Paget's disease. | | | | | | | |
| 7.1.15 | Discuss the clinical features, investigations and management of Paget's disease | | | | | | | |

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|-------------------------------|--|---|---------|---|-----------------------------------|------------------------------------|--|-----------------|
| OR7.2 | Perform a systematic examination of a patient with deformity of Knee. | K | K/KH/SH | Y | DOAP session, Video demonstration | Viva voice/OSCE/Skills assessment. | | General Surgery |
| Specific learning objectives: | | | | | | | | |
| 7.2.1 | Take an elaborate history in chronological order | | | | | | | |
| 7.2.2 | Perform generalized examination of patient | | | | | | | |
| 7.2.3 | Perform localized examination of the affected limb and discuss in terms of inspection, palpation, movements and measurements | | | | | | | |
| 7.2.4 | Define Genu Varum and Valgum and discuss etiologies and pathogenesis | | | | | | | |
| 7.2.5 | Discuss investigations required to diagnose and plan management of a patient with knee deformity | | | | | | | |
| 7.2.6 | Discuss management. | | | | | | | |

| Topic : Poliomyelitis | | | | | | | | |
|-------------------------------|---|---|------|---|--|--------------------------|--|--|
| OR8.1 | Describe and discuss the aetipathogenesis, clinicalfeatures, assessment and principles of managing apatient with Post Polio Residual Paralysis. | K | K/KH | Y | Lecture , Small group discussion,Case discussion | Written /Viva voice/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 8.1.1 | Define poliomyelitis. | | | | | | | |
| 8.1.2 | Discuss the etiology, pathogenesis and clinicalfeatures of poliomyelitis. | | | | | | | |
| 8.1.3 | Discuss the types of poliomyelitis and itscomplications. | | | | | | | |
| 8.1.4 | What is PPRP(Post Polio Residual Paralysis). | | | | | | | |
| 8.1.5 | Discuss the signs and symptoms in post polio syndrome. | | | | | | | |
| 8.1.6 | How do you recognize the paralysis caused bypoliomyelitis. | | | | | | | |
| 8.1.7 | Enumerate the common secondary problemsfollowing poliomyelitis. | | | | | | | |
| 8.1.8 | Mention the common contractures and deformities in PPRP. | | | | | | | |
| 8.1.9 | Discuss how do you evaluate a case of PPRP. | | | | | | | |
| 8.1.10 | Discuss the general principles of management ofPPRP. | | | | | | | |

| Topic : Cerebral Palsy | | | | | | | | |
|-------------------------------|--|---|------|---|----------------------------------|--------------------------|--|--|
| OR9.1 | Describe and discuss the aetiopathogenesis , clinical features, assessment and principles of management of cerebral palsy patient. | K | K/KH | Y | Lecture , Small group discussion | Written/ Viva voice/OSCE | | |
| Specific learning objectives: | | | | | | | | |
| 9.1.1 | Define cerebral palsy. | | | | | | | |
| 9.1.2 | Discuss the etiopathogenesis of cerebral palsy. | | | | | | | |
| 9.1.3 | Classify cerebral palsy. | | | | | | | |
| 9.1.4 | Discuss the clinical features and investigations of cerebral palsy. | | | | | | | |
| 9.1.5 | Discuss the general principles of management of cerebral palsy. | | | | | | | |
| 9.1.6 | Discuss the common deformities of cerebral palsy. | | | | | | | |
| 9.1.7 | Mention common surgical procedures done in cerebral palsy. | | | | | | | |

| Topic : Bone tumors | | | | | | | | |
|-------------------------------|--|---|------|---|---|-------------------------|-----------|-------------------------------|
| OR10.1 | Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of benign and malignant bone tumors and pathological fractures. | K | K/KH | Y | Lecture , Small group discussion , Video assisted interactive lecture | Written/Viva voice/OSCE | Pathology | General surgery. Radiotherapy |
| Specific learning objectives: | | | | | | | | |
| 10.1.1 | Classify bone tumors. | | | | | | | |
| 10.1.2 | Enumerate common benign tumors. | | | | | | | |
| 10.1.3 | Discuss aetiopathogenesis, clinical features , investigations and management of Osteochondroma. | | | | | | | |
| 10.1.4 | List the complications of Osteochondroma. | | | | | | | |
| 10.1.5 | Discuss the etiopathogenesis, clinical features, radiological findings and management of Osteoclastoma. | | | | | | | |
| 10.1.6 | Discuss Enneking staging of malignant bone tumors. | | | | | | | |
| 10.1.7 | Discuss the technique of open bone biopsy in malignant bone tumors. | | | | | | | |
| 10.1.8 | Describe the etiopathogenesis, clinical features, investigations and management of osteosarcoma. | | | | | | | |
| 10.1.9 | Discuss the etiopathogenesis, clinical features, investigations and management of Ewing's sarcoma. | | | | | | | |
| 10.1.10 | Define pathological fracture. | | | | | | | |
| 10.1.11 | Enumerate the causes of pathological fracture. | | | | | | | |
| 10.1.12 | Discuss the criteria for impending pathological fracture. | | | | | | | |

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| 10.1.13 | Discuss the general principles of management of pathological fractures. | | | | | | | |
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| OR 10.2 | Perform a systematic examination of a patient with bony swelling | K | K/KH/SH | Y | DOAP session, Video demonstration | Viva voice/OSCE/Skills assessment. | | General Surgery |
| Specific learning objectives: | | | | | | | | |
| 10.2.1 | Take an elaborate history in chronological order | | | | | | | |
| 10.2.2 | Perform generalized examination of patient | | | | | | | |
| 10.2.3 | Perform localized examination of the affected limb and discuss in terms of inspection, palpation, movements and measurements | | | | | | | |
| 10.2.4 | Discuss differential diagnosis of bony swellings/tumors. | | | | | | | |
| 10.2.5 | Discuss investigations required to establish diagnosis and plan management of benign and malignant tumors | | | | | | | |
| 10.2.6 | Discuss medical and surgical management of bony swelling. | | | | | | | |

| Topic: Peripheral nerve injuries. | | | | | | | | |
|-----------------------------------|--|---|------|---|--|---------------------------|---------------|------------------------------------|
| 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/KH | Y | Lecture, Small group discussion, case presentation | Written/ Viva voice/ OSCE | Human anatomy | General medicine. General surgery. |
| Specific learning objectives: | | | | | | | | |
| 11.1.1 | Classify peripheral nerve injuries. | | | | | | | |
| 11.1.2 | Enumerate the causes of peripheral nerve injuries. | | | | | | | |
| 11.1.3 | Discuss the investigations to diagnose peripheral nerve injuries. | | | | | | | |
| 11.1.4 | Describe the etiology, clinical features, clinical tests and management of radial nerve injury. | | | | | | | |
| 11.1.5 | Describe the etiology, clinical features, clinical tests and management of median nerve injury. | | | | | | | |
| 11.1.6 | Describe the etiology, clinical features, clinical tests and management of ulnar nerve injury. | | | | | | | |
| 11.1.7 | Enumerate the causes of foot drop. | | | | | | | |
| 11.1.8 | Discuss the clinical features, clinical tests and management of foot drop. | | | | | | | |
| 11.1.9 | Discuss the etiology, clinical tests and management of sciatic nerve injury. | | | | | | | |
| 11.1.10 | Discuss various splints used in peripheral nerve injuries | | | | | | | |

| Topic: Congenital lesions | | | | | | | | |
|-------------------------------|---|---|----------|---|----------------------------------|---------------------------|---------------|--|
| OR12.1 | Describe and discuss the clinical features , investigations and principles of management of Congenital and acquired malformations of deformities of a. limbs and spine – Scoliosis and spinal bifida. b. Developmental Dysplasia of Hip (DDH), Torticollis. c. Congenital Talipes Equino Varus (CTEV). | K | K/K H | Y | Lecture, Small group discussion. | Written / Viva voice/OSCE | Human anatomy | |
| Specific learning objectives: | | | | | | | | |
| 12.1.1 | Define scoliosis and kyphosis. | | | | | | | |
| 12.1.2 | Discuss the causes, clinical features, investigations and management of scoliosis. | | | | | | | |
| 12.1.3 | Define spina bifida. | | | | | | | |
| 12.1.4 | Discuss the etiology, clinical features, investigations and management of spina bifida. | | | | | | | |
| 12.1.5 | Describe the etiology, pathoanatomy, clinical features and investigations of DDH. | | | | | | | |
| 12.1.6 | Discuss the general principles of management of DDH. | | | | | | | |
| 12.1.7 | Enumerate the causes of Torticollis. | | | | | | | |
| 12.1.8 | Discuss the clinical features, investigations and management of Torticollis. | | | | | | | |
| 12.1.9 | Describe the etiology, pathoanatomy , clinical features and investigations of CTEV. | | | | | | | |
| 12.1.10 | Discuss the general principles of management of CTEV. | | | | | | | |
| 12.1.11 | Discuss the correction techniques of CTEV. | | | | | | | |
| 12.1.12 | Enumerate the common surgical procedures performed for | | | | | | | |

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| | CTEV. | | | | | | | |
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| Topic: Procedural Skills | | | | | | | | |
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| OR13.1 | Participate in a team for procedures in patients and demonstrating the ability to perform on mannequins/ simulated patients in the following: i. Above elbow plaster. ii. Below knee plaster. iii. Above knee plaster. iv. Thomas splint. v. Splinting for long bone fractures. vi. Strapping for shoulder and clavicle trauma. | K | K/KH/S H | Y | Case discussion, Video assisted Lecture, Small group discussion, Teaching ,Skill lab sessions | OSCE with Simulation based assessment. | | |
| Specific learning objectives: | | | | | | | | |
| 13.1.1 | Differentiate cast and slab. | | | | | | | |
| 13.1.2 | Discuss the precautions to be followed during and after plaster application. | | | | | | | |
| 13.1.3 | Perform under supervision application of above elbow slab for an undisplaced supracondylar fracture. | | | | | | | |
| 13.1.4 | Perform under supervision the application of Colle's cast . | | | | | | | |
| 13.1.5 | Perform under supervision the application of above knee plaster slab to immobilize proximal tibia fracture. | | | | | | | |
| 13.1.6 | Identify Thomas splint and enumerate its uses. | | | | | | | |
| 13.1.7 | Perform under supervision the application of strapping for clavicle Fractures. | | | | | | | |
| 13.1.8 | Perform under supervision the application of Thomas splint for fracture shaft femur | | | | | | | |

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| OR13.2 | Participate as a member in team for Resuscitation of Polytrauma victim by doing all of the following: (a) I V access central- peripheral (b) Bladder catheterization (c) Endotracheal intubation. (d) Splintage | K | K/KH/SH | Y | Case discussion, Video assisted Lecture, Small group discussion, Teaching , Skill lab sessions | OSCE with Simulation based assessment | | Anesthesiology |
| Specific learning objectives: | | | | | | | | |
| 13.2.1 | Perform under supervision in getting IV access on a mannequin in a skill lab. | | | | | | | |
| 13.2.2 | Perform bladder catheterization under supervision in skill lab. | | | | | | | |
| 13.2.3 | Perform endotracheal intubation under supervision on a mannequin in a skill lab. | | | | | | | |
| 13.2.4 | Perform neck immobilization using cervical collar in a polytrauma patient under supervision. | | | | | | | |
| 13.2.5 | Perform under supervision the use of Thomas splint to immobilize fracture both bones leg in a polytrauma patient. | | | | | | | |
| 13.2.6 | Perform under supervision the use of pelvic binder in a case of pelvic fracture with haemodynamic instability | | | | | | | |

| Topic : Counselling Skills | | | | | | | | |
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| OR14.1 | Demonstrate the ability to counsel patients regarding prognosis in patients with various orthopaedic illness like a. fracture with disabilities. b. fracture that requires prolonged bed stay. c. bone tumours d. congenital disabilities. | K/C | K/KH/SH | Y | Case discussion, Video assisted lecture, Small group discussion, Teaching, Skill lab sessions. | OSCE with Simulation based assessment | | AETCOM |
| Specific learning objectives: | | | | | | | | |
| 14.1.1 | Demonstrate ability to communicate to patients with fractures, that multiple complications can occur leading to loss of skeletal function, restricted range of motion and neurovascular damage that can severely compromise function and performance. | | | | | | | |
| 14.1.2 | Demonstrate ability to communicate to patients with multiple osteoporotic vertebral fractures about the necessity of prolonged bed rest and its complication. | | | | | | | |
| 14.1.3 | Demonstrate ability to counsel to patients with bone tumors, the prognosis, or outlook for survival depending on the particular type of bone tumor and extent to which it had spread. | | | | | | | |
| 14.1.4 | Demonstrate ability to counsel parents about children with congenital disabilities with respect to function, performance and cosmesis. | | | | | | | |

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| OR14.2 | Demonstrate the ability to counsel patients to obtain consent for various orthopaedic procedures like limb amputation, permanent fixations etc. | K/C | K/KH/SH | Y | Case discussion, Video assisted lecture , Small group discussion, Teaching, Skills lab sessions | OSCE with Simulation based assessment | | AETCOM |
| Specific learning objectives: | | | | | | | | |
| 14.2.1 | Demonstrate the ability to counsel a patient with limb amputation for serious trauma (crush or blast), about the advantages, recovery , rehabilitation and functional recovery. | | | | | | | |
| 14.2.2 | Demonstrate the ability to obtain informed consent from patient and family in a simulated environment. | | | | | | | |
| 14.2.3 | Communicate diagnostic and therapeutic options to patient and family for fracture fixation to obtain informed consent | | | | | | | |

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| OR14.3 | Demonstrate the ability to convince the patient for referral to a higher center in various orthopaedic illness, based on the detection of warning signals and need for sophisticated management. | K/C | K/KHS H | Y | Case discussion, Video assisted lecture, Small group discussion, Teaching, Skills lab sessions | OSCE with Simulation based assessment | | AETCOM |
| Specific learning objectives: | | | | | | | | |
| 14.3.1 | Enumerate common orthopedic emergencies which need timely referral to a higher tertiary center. | | | | | | | |
| 14.3.2 | Demonstrate the ability to convince about referring patient with fracture proximal tibia associated with vascular injury to higher center. | | | | | | | |
| 14.3.3 | Demonstrate the ability to convince about referring patient with traumatic amputation of leg to higher center for replantation. | | | | | | | |
| 14.3.4 | Demonstrate the ability to convince about referring a spinal cord injury patient to higher center. | | | | | | | |

Model Time table for Phase II MBBS, Phase III Part 1 and Part 2 MBBS

| Phase II (2 weeks Clinical Posting) | |
|-------------------------------------|-----------------------|
| | 9.00 AM to 12.00 Noon |
| Monday | Postings |
| Tuesday | Postings |
| Wednesday | Postings |
| Thursday | Postings |
| Friday | Postings |
| Saturday | X |

| Phase III Part 1 (4 weeks Clinical Posting + 5 SDL + 20hrs SGD/IT+ 15hrs Lectures) | | | |
|--|-----------------------|---|-------------------------------------|
| | 9.00 AM to 12.00 Noon | 12.01 Pm to 1.00 PM <i>5 SDL+ 19 SGD/IT</i> | 2.00PM to 3.00 PM |
| Monday | Postings | SDL/SGD/IT | |
| Tuesday | Postings | SDL/SGD/IT | |
| Wednesday | Postings | SDL/SGD/IT | <i>15 Lectures + 1SGD/IT</i> |
| Thursday | Postings | SDL/SGD/IT | |
| Friday | Postings | SDL/SGD/IT | |
| Saturday | Postings | SDL/SGD/IT | |

| Phase III Part 2 (2 weeks Clinical Posting + 5 SDL+ 25 SGL/IT+ 20 Lectures) | | | |
|--|------------------------------|--|-------------------------------|
| | 9.00 AM to 12.00 Noon | 12.01 Pm to 1.00 PM (5 SDL+ 7 SGD/IT) | 2.00PM to 3.00 PM |
| Monday | Postings | SDL/SGD/IT | |
| Tuesday | Postings | SDL/SGD/IT | |
| Wednesday | Postings | SDL/SGD/IT | 20 Lectures+ 18 SGD/IT |
| Thursday | Postings | SDL/SGD/IT | |
| Friday | Postings | SDL/SGD/IT | |
| Saturday | Postings | SDL/SGD/IT | |

List of Competencies to cover in each phase of MBBS

Lectures in Phase III Part 1 and Part 2 MBBS

| Sl.No | Topics | MBBS Phase III, Part 1 Competencies to be covered | MBBS Phase III, Part 2 Competencies to be covered |
|-------|--|--|--|
| 1 | Skeletal trauma, poly trauma | OR1.1, 1.2, 1.3, 1.4, 1.5 | |
| 2 | Fractures | OR 2.1, 2.2, 2.4, 2.5, 2.6, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16 | 2.7, 2.8 |
| 3 | Musculoskeletal Infection | | 3.1 |
| 4 | Skeletal Tuberculosis | | 4.1 |
| 5 | Rheumatoid Arthritis and associated inflammatory disorders | | 5.1 |
| 6 | Degenerative disorders | | 6.1 |
| 7 | Metabolic bone disorders | | 7.1 |
| 8 | Poliomyelitis | | 8.1 |
| 9 | Cerebral Palsy | | 9.1 |
| 10 | Bone Tumors | | 10.1 |
| 11 | Peripheral nerve injuries | | 11.1 |
| 12 | Congenital lesions | | 12.1 |
| 13 | Physical Medicine and Rehabilitation | | PM1.2,1.3, 1.4, 5.1, 5.2, 5.3, 5.4, 7.7, 8.1 |

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|----|-------------|----------|----------|
| 14 | Total Hours | 15 hours | 20 hours |
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Small group discussions (Tutorials / Seminars) in Phase III Part 1 and Part 2 MBBS

| Sl.No | Topics | MBBS Phase III, Part 1 Competencies to be covered | MBBS Phase III, Part 2 Competencies to be covered |
|-------|--|--|--|
| 1 | Skeletal trauma, poly trauma | OR1.1, 1.2, 1.3, 1.4, 1.5, 1.6 | |
| 2 | Fractures | OR 2.3, 2.4, 2.5, 2.10, 2.12, 2.14, 2.16 | 2.7, 2.8 |
| 3 | Musculoskeletal Infection | | 3.2, 3.3 |
| 4 | Skeletal Tuberculosis | | 4.1 |
| 5 | Rheumatoid Arthritis and associated inflammatory disorders | | 5.1 |
| 6 | Metabolic bone disorders | | 7.1 |
| 7 | Bone Tumors | | 10.1 |
| 8 | Peripheral nerve injuries | | 11.1 |
| 9 | Congenital lesions | | 12.1 |
| 10 | Counseling Skills | 14.1,14.2,14.3 | |
| | Total Hours | 14 Hours | 9 Hours |

Integrated learning in Phase III Part 1 and Part 2 MBBS

| Sl.No | Topics | MBBS Phase III, Part 1 Competencies to be covered | MBBS Phase III, Part 2 Competencies to be covered |
|--------------|---|--|--|
| 1 | Anatomy | AN2.4,2.5,8.4, 8.6, 17.2, 10.12, 17.3, 18.6, 18.7, 11.4, 19.4, 19.6, 19.7 | |
| 2 | Microbiology | | MI 4.2 |
| 3 | Forensic medicine | | FM3.7, 3.8, 3.9, 3.10, 3.11, 3.12 |
| 4 | Pathology | | PA33.1, 33.2, 33.2, 33.4 |
| 5 | General Medicine | | IM7.4, 7.6, 7.7, 7.8, 7.9, 7.10, 24.12, 24.13, 24.14. 24.16 |
| 6 | Physical Medicine and Rehabilitation | | PM 5.1, 5.2, 5.3, 5.4 6.3, 6.4, 2.4, 7.4, 7.5 |
| | Total Hours | 6 hours | 16 hours |

| Self Directed Learning in Phase III Part 1 and Part 2 MBBS | | | |
|---|---|--|--|
| Sl. No | Topics | MBBS Phase III, Part 1 Competencies to be covered | MBBS Phase III, Part 2 Competencies to be covered |
| 1 | Skeletal trauma, poly trauma | OR 1.5,1.6 | |
| 2 | Fractures | OR 2.15 | OR 2.7, OR 2.8 |
| 3 | Musculoskeletal Infection | | OR 3.1 |
| 9 | Cerebral Palsy | | |
| 10 | Bone Tumors | | OR 10.1 |
| 11 | Peripheral nerve injuries | | OR 11.1 |
| 13 | Physical Medicine and Rehabilitation | PM5.3, PM5.4, PM7.2, | |
| 14 | Total Hours | 5 Hours | 5 Hours |

Time allotment for Competencies in Phase III Part 1 MBBS

| Sl.No | Topics | Competency | Type of Learning and Hours | | |
|-------|------------------------------|-------------|----------------------------|---|----------------------------------|
| | | | Lectures (hours) | Small group discussions (Tutorials / Seminars) /Integrated learning (hours) | Self - Directed Learning (hours) |
| 1 | Skeletal trauma, poly trauma | OR1.1 | 1 | 1 | 1 |
| | | OR1.2 | 1 | 1 | |
| | | OR13, OR1.4 | 1 | 1 | |
| | | OR1.5 | 1 | 1 | 1 |
| | | OR 1.6 | | 1 | |
| 2 | Fractures | OR 2.1, 2.2 | 1 | | |
| | | OR 2.3 | | 1 | |
| | | OR 2.4 | 1 | 1 | |
| | | OR 2.5 | 1 | 1 | |
| | | OR 2.6 | 1 | | |
| | | OR 2.10 | 1 | 1 | |
| | | OR 2.11 | 1 | | |
| | | OR2.12 | 1 | 1 | |
| | | OR 2.13 | 1 | | |
| | | OR 2.14 | 1 | | |
| | | OR 2.15 | 1 | 1 | 1 |
| | | OR 2.16 | 1 | 1 | |

CONTINUED IN NEXT PAGE

Time allotment for Competencies in Phase III Part 1 MBBS

| Sl.No | Topics | Competency | Type of Learning and Hours | | |
|-------|--------------------------------------|----------------|----------------------------|---|----------------------------------|
| | | | Lectures (hours) | Small group discussions (Tutorials / Seminars) /Integrated learning (hours) | Self - Directed Learning (hours) |
| 3 | Counseling Skills | OR 14.1,14.2 | | 1 | |
| | | OR 14.3 | | 1 | |
| 4 | Anatomy (Integrated) | AN 2.4,2.5,8.4 | | 1 | |
| | | AN 8.6,17.2 | | 1 | |
| | | AN10.12, 17.3 | | 1 | |
| | | AN 18.6, 18.7 | | 1 | |
| | | AN 11.4, 19.4 | | 1 | |
| | | AN 19.6, 19.7 | | 1 | |
| 5 | Physical medicine and Rehabilitation | PM 5.3,5.4 | | | 1 |
| | | PM 7.2 | | | 1 |
| | Total | | 15 | 20 | 5 |

Time allotment for Competencies in Phase III Part 2 MBBS

| Sl.No | Topics | Competency | Type of Learning and Hours | | |
|-------|--|------------|----------------------------|---|----------------------------------|
| | | | Lectures (hours) | Small group discussions (Tutorials / Seminars) /Integrated learning (hours) | Self - Directed Learning (hours) |
| 1 | Fractures | OR 2.7 | 1 | 1 | 1 |
| | | OR 2.8 | 1 | 1 | 1 |
| 2 | Musculoskeletal Infection | OR 3.1 | 2 | | 1 |
| | | OR 3.2,3.3 | | 1 | |
| 3 | Skeletal Tuberculosis | OR 4.1 | 2 | 1 | |
| 4 | Rheumatoid Arthritis and associated inflammatory disorders | OR 5.1 | 1 | 1 | |
| 5 | Degenerative disorders | OR 6.1 | 1 | | |
| 6 | Metabolic bone disorders | OR 7.1 | 1 | 1 | |
| 7 | Poliomyelitis | OR 8.1 | 1 | | |
| 8 | Cerebral Palsy | OR 9.1 | 1 | | |
| 9 | Bone Tumors | OR 10.1 | 2 | 1 | 1 |
| 10 | Peripheral nerve injuries | OR 11.1 | 2 | 1 | 1 |

| | | | | | |
|-------------------------------|--------------------|---------|---|---|--|
| 11 | Congenital lesions | OR 12.1 | 2 | 1 | |
| <i>CONTINUED IN NEXT PAGE</i> | | | | | |

Time allotment for Competencies in Phase III Part 2 MBBS

| Sl.No | Topics | Competency | Type of Learning and Hours | | |
|-------|--------------------------------------|-----------------------------------|----------------------------|---|----------------------------------|
| | | | Lectures (hours) | Small group discussions (Tutorials / Seminars) /Integrated learning (hours) | Self - Directed Learning (hours) |
| 12 | Pathology | PA 33.1 | | 1 | |
| | | PA 33.2, 33.4 | | 1 | |
| 13 | Microbiology | MI 4.2 | | 1 | |
| 14 | Forensic Medicine and Toxicology | FM3.7. 3.8, 3.9, 3.10 | | 1 | |
| | | FM 3.11, 3.12 | | 1 | |
| 15 | General Medicine | IM 7.5, 7.6, 7.7, 7.8, 7.9, 7.10, | | 2 | |
| | | 24.12 | | 1 | |
| | | 24.13, 24.14, 24.16 | | 2 | |
| 16 | Physical Medicine and Rehabilitation | PM 1.2, 1.3, 1.4 | 1 | | |
| | | PM 5.1, 5.2, 5.3, 5.4 | 1 | 1 | |
| | | PM 6.3 | | 2 | |
| | | PM 6.4 | | 1 | |
| | | PM 7.4 | | 1 | |
| | | PM 7.5 | | 1 | |
| | | PM 7.7, 8.1 | 1 | | |
| | TOTAL HOURS | | 20 | 25 | 5 |

Orthopaedic Competencies in Internship

GOAL

The goal of the internship programme is to train medical students to fulfill their roles as doctors of first contact in the community.

(A) THERAPEUTIC- An intern must know:

- (a) Splinting (plaster slab) for the purpose of emergency splintage, definitive splintage and post operative splintage and application of

Thomas splint;

- (b) Manual reduction of common fractures – phalangeal, metacarpal, metatarsal and Colles’s fracture;
- (c) Manual reduction of common dislocations – interphalangeal, metacarpophalangeal, elbow and shoulder dislocations;
- (d) Plaster cast application for undisplaced fractures of arm, fore arm, leg and ankle;
- (e) Emergency care of a multiple injury patient;
- (f) Precautions about transport and bed care of spinal cord injury patients.

(B) Skill that an intern should be able to perform under supervision:

- (1) Advise about prognosis of poliomyelitis, cerebral palsy, CTEV and CDH;
- (2) Advise about rehabilitation of amputees and mutilating traumatic and leprosy deformities of hand;

(C) An intern must have observed or preferably assisted at the following operations:

- (1) drainage for acute osteomyelitis;
- (2) sequestrectomy in chronic osteomyelitis;
- (3) application of external fixation;

(4) internal fixation of fractures of long bones.

Physical Medicine and Rehabilitation Competencies in

GOAL

The aim of teaching the undergraduate student in Physical Medicine & Rehabilitation is to impart such knowledge and skills that may enable him to diagnose and treat common rheumatologic, orthopedic and neurologic illnesses requiring physical treatment. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management.

(A) THERAPEUTIC- An intern must know:

- a) Diagnosing and managing with competence clinical diagnosis and management based on detailed history and assessment of common disabling conditions like poliomyelitis, cerebral palsy, hemiplegia, paraplegia, amputations etc.
- b) Participation as a team member in total rehabilitation including appropriate follow up of common disabling conditions,
- c) Procedures of fabrication and repair of artificial limbs and appliances.

(B) An intern must have observed or preferably assisted at the following operations/ procedures: :

- a) Use of self-help devices and splints and mobility aids
- b) Accessibility problems and home making for disabled
- c) Simple exercise therapy in common conditions like prevention of deformity in polio, stump exercise in an amputee etc.
- d) Therapeutic counseling and follow up

List of Competencies to cover in Internship

| SL NO | Competency | Performed | Assisted | Observed |
|--------------|---|--------------------------|--------------------------|--------------------------|
| 1 | Splinting | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | Cast Application | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | Manual Reduction of Common dislocations | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | Application of External Fixator | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | Internal Fixation of Long Bones | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 | Wound repair and dressing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 | Drainage of Acute Osteomyelitis | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 | Major Operative Procedures | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9 | Minor Operative Procedures | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 | Case Sheet Writing | <input type="checkbox"/> | | |

Period of Training in Internship

| Subject | Period of Posting (Weeks) |
|-------------------------------|------------------------------|
| Orthopaedics including PMR | 4 weeks |

Certifiable skills in Internship

A Comprehensive list of skills recommended in Orthopedics desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) – Indian Medical Graduate

- 1. Application of basic splints and slings (I)**
- 2. Basic fracture and dislocation management (O)**
- 3. Compression bandage (I)**

I- Independently performed on patients,

O- Observed in patients or on simulations,

D- Demonstration on patients or simulations and performance under supervision in patients

Assessment in Orthopaedics

Formative Assessment - An assessment conducted during the instruction with primary purpose of providing feedback for improving learning.

Summative Assessment - An assessment conducted at the end of instruction to check how much the student has learnt.

Internal Assessment (IA)- Range of assessments conducted by the teachers teaching a particular subject with the purpose of knowing what is learnt and how it is learnt. Internal assessment can have both formative and summative functions.

Note - Assessment requires specification of measurable and observable entities. This could be in the form of whole tasks that contribute to one or more competencies or assessment of a competency per se. Another approach is to break down the individual competency into learning objectives related to the domains of knowledge, skills, attitudes, communication etc. and then assess them individually

Scheduling of Internal Assessment -

- A. In Phase II MBBS there will be one Internal assessments in practicals.
- B. In Phase III part 1 MBBS there will be one Internal assessment each in theory and practicals.
- C. In Phase III part 2 MBBS the test should be prelim or pre-university examination with theory and practicals

Theory can include:

Theory tests, seminars, quizzes, interest in subject, scientific attitude etc. Written tests should have essay questions, short notes and creative writing experiences.

Practical can include:

Practical tests, Objective Structured Practical Examination (OSPE), Directly Observed Procedural Skills (DOPS), records maintenance and attitudinal assessment.

Log Book Assessment -

- A. Log book should record all activities like seminar, symposia, quizzes and other academic activities.
- B. It should be assessed regularly and submitted to the department.
- C. Up to twenty per cent internal marks can be considered for Log book assessment.

Feedback in Internal Assessment

Feedback should be provided to students throughout the course so that they are aware of their performance and remedial action can be initiated well in time. The feedbacks need to be structured and the faculty and students must be sensitized to giving and receiving feedback.

The results of IA should be displayed on notice board within two weeks of the test and an opportunity provided to the students to discuss the results and get feedback on making their performance better.

It is also recommended that students should sign with date whenever they are shown IA records in token of having seen and discussed the marks.

Internal assessment marks will not be added to University examination marks and will reflect as a separate head of passing at the summative examination. Internal assessment should be based on competencies and skills.

Criteria for appearing in University examination

Students must secure at least 50% marks of the total marks (combined in theory and practical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the final University examination

Annexures

A. Teaching Learning Methods

- **Didactic lectures** should be made more interactive by encouraging the more involvement of the students. In the present digital era, student's involvement is more with usage of technology. For examples, many polling sessions, quizzes etc., can be done using google slides and other apps or websites.
- **Small group discussion (SGD)** should be planned properly and discussed among the faculty members before taking the class. As far as possible, uniformity should be maintained in the SGD by various facilitators. **Case based learning (CBL) and problem based learning (PBL)** may be used to make the learner understand and learn about the various aspects in order to achieve the particular competency.
- Encourage the students learn themselves through **self-directed learning (SDL)**. SDL sessions may be planned with objectives in order to cover the particular competency. These sessions may be conducted by providing learning material (research articles, public news, videos, etc.) by a teacher and ask the students to search on a particular topic. Students should learn themselves by going through available resources and come back to classes allotted for SDL sessions where teacher able to connect the learning of students in order to achieve the competency.
- **Integrated classes** should be planned in order to cover the competency involving the topics from different subjects. These classes can be taken using Nesting, Temporal Coordination or Sharing. Case linkers may be used to link the topic/subject area among different subjects/ departments.
- Skills should be taught using the clinical cases at hospital wards/casualty/EMD, simulation in skills labs and/or departmental demonstration rooms. **Case scenarios** may be developed while teaching at skills lab and/or demonstration rooms.

B. Blue Print & Assessment methods - Theory

**Number of QPs
for
Orthopaedics:
One**

Theory marks: 50

This shows the weightage given to each chapter in the summative assessment. This improves the content validity by distributing the assessment of learners in the competencies that are represented by learning objectives under each chapter.

Number of QPs for the subject: One.

Only CORE competencies shall be considered for framing questions. QP should contain the following distribution of questions (as shown in below table).

| Type of Question | Marks Per Question | Number of questions | Total Marks |
|------------------|--------------------|---------------------|-------------|
| Long Essay | 10 | 2 | 20 |
| Short Essays | 5 | 3 | 15 |
| Short Answers | 3 | 5 | 15 |
| | | Total | 50 |

Each paper should contain Long essays (10 marks x 2), Short essay (5 marks x 3), Short answer (3 marks x 5).

Distribution of marks in suggested blue print

| SL NO | Topics | Type of Question | | |
|-------|--|------------------|-------------|---------------|
| | | Long Essay | Short Essay | Short Answers |
| 1 | Skeletal trauma, poly trauma | | ? | ? |
| 2 | Fractures | ? | ? | ? |
| 3 | Musculoskeletal Infection | ? | ? | ? |
| 4 | Skeletal Tuberculosis | ? | ? | ? |
| 5 | Rheumatoid Arthritis and associated inflammatory disorders | | ? | ? |
| 6 | Degenerative disorders | | ? | ? |
| 7 | Metabolic bone disorders | ? | ? | ? |
| 8 | Poliomyelitis | | ? | ? |
| 9 | Cerebral Palsy | | ? | ? |
| 10 | Bone Tumors | ? | ? | ? |
| 11 | Peripheral nerve injuries | | ? | ? |
| 12 | Congenital lesions | ? | ? | ? |
| 13 | Physical Medicine and Rehabilitation | | ? | ? |

NOTE: The questions should be framed only from Core competencies (as shown in above table).

c. Blue Print & Assessment methods - Practicals

1. Total Marks: 50

I. Clinical Cases: 40 Marks

I. Viva Voce: 10 Marks

Clinical Cases:

Two short cases (2 X 20 Marks)

Viva:

Two Radiographs (5 Marks)

Two Instruments/ Implants (5Marks)

| Suggested Marks distribution for Each Case | | |
|--|--------------------------------|-------|
| Sl No | Assessment parameter | Marks |
| 1 | History and case sheet writing | 5 |
| 2 | Clinical examination | 5 |
| 3 | Diagnosis/ analysis of case | 5 |
| 4 | Presentation | 5 |

D. Integration Topics

Integration: The teaching should be aligned and integrated horizontally and vertically recognizing the importance of orthopaedic conditions as they relate to the practice of medicine as a whole.

| HUMAN ANATOMY | | | | | | | | |
|-------------------------------|--|---|----|---|---------|--------------------|--------------|--|
| AN2.4 | Describe various types of cartilage with its structure& distribution in body | K | KH | Y | Lecture | Written/Vive voice | orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 2.4.1 | Define cartilage. | | | | | | | |
| 2.4.2 | Enumerate types of cartilage. | | | | | | | |
| 2.4.3 | Discuss the components of cartilage. | | | | | | | |
| 2.4.4 | Describe structure of various types of cartilage with examples | | | | | | | |
| 2.4.5 | Discuss what happens to articular cartilage in osteoarthritis | | | | | | | |
| AN2.5 | Describe various joints with subtypes and examples | K | KH | Y | Lecture | Written/Viva Voce | orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 2.5.1 | Define a joint. | | | | | | | |
| 2.5.2 | Classify joints based on mobility between bones. | | | | | | | |
| 2.5.3 | Discuss the components of synovial joints. | | | | | | | |
| 2.5.4 | Describe the structure of joint capsule. | | | | | | | |
| 2.5.5 | Enumerate the types of synovial joints. | | | | | | | |
| 2.5.6 | Describe the supporting structures of synovial joints. | | | | | | | |

| | | | | | | | | |
|--------------------------------------|--|------------|-----------|----------|--|-------------------------------|---------------------|--|
| AN8. 4 | Demonstrate important muscle attachments on the given bone | K/S | SH | Y | Practical, DOAP session, Small group teaching | Viva voice/ Practicals | orthoapedics | |
| Specific learning objectives: | | | | | | | | |
| 8.4.1 | Demonstrate the origin and insertion of Deltoid muscle. | | | | | | | |
| 8.4.2 | Demonstrate the origin and insertion of Biceps Brachii. | | | | | | | |
| 8.4.3 | Demonstrate the flexor group of muscles of forearm and its attachments. | | | | | | | |
| 8.4.4 | Demonstrate the extensor group of muscles of forearm and its attachments. | | | | | | | |
| 8.4.5 | Demonstrate the muscle attachment of humerus. | | | | | | | |
| 8.4.6 | Demonstrate the muscle attachment of radius and ulna. | | | | | | | |
| 8.4.7 | Discuss the muscle attachment of femur. | | | | | | | |
| 8.4.8 | Discuss the origin and insertion of quadriceps. | | | | | | | |
| 8.4.9 | Describe the muscle attachment of tibia and fibula. | | | | | | | |

| | | | | | | | | |
|--------------------------------------|--|----------|-----------|----------|---------------------|-------------------|---------------------|--|
| AN8.6 | Describe scaphoid fracture and explain the anatomical basis of avascular necrosis | K | KH | N | DOAP session | Viva voice | orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 8.6.1 | Discuss the anatomy of scaphoid bone. | | | | | | | |
| 8.6.2 | Describe the blood supply of scaphoid bone. | | | | | | | |
| 8.6.3 | Discuss the mechanism of injury of scaphoid fracture. | | | | | | | |
| 8.6.4 | Classify scaphoid fractures. | | | | | | | |
| 8.6.5 | Discuss the clinical features and investigations in scaphoid fractures. | | | | | | | |
| 8.6.6 | Discuss the principles of management of scaphoid fracture. | | | | | | | |
| 8.6.7 | Enumerate complications of scaphoid fracture | | | | | | | |
| 8.6.8 | Discuss the causes of avascular necrosis of scaphoid fracture and its management. | | | | | | | |

| | | | | | | | | |
|--------------------------------------|--|------------|-------------|----------|--|---|---------------------|--|
| AN10.1 2 | Describe and demonstrate shoulder joint for - type, articular surfaces, capsule, synovial membrane, ligaments, relations, movements, muscle involved, blood supply, nerve supply and applied anatomy. | K/S | SH | Y | Practical, Lecture, Small group discussion, DOAP session. | Written/Viva voice/Skills assessment | Orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 10.12.1 | Discuss shoulder joint anatomy. | | | | | | | |
| 10.12.2 | Describe various supporting structures of shoulder joint. | | | | | | | |
| 10.12.3 | Discuss glenoid labrum and its importance. | | | | | | | |
| 10.12.4 | Demonstrate the movements of shoulder joint. | | | | | | | |
| 10.12.5 | Describe sub acromial bursa and its importance. | | | | | | | |
| 10.12.6 | Describe the blood supply of proximal humerus and its applied anatomy. | | | | | | | |
| 10.12.7 | Discuss rotator cuff group of muscles | | | | | | | |
| AN11.4 | Describe the anatomical basis of Saturday night paralysis | K | K/KH | Y | Practical, Lecture | Written/Viva voice | Orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 11.4.1 | Discuss the formation of radial nerve. | | | | | | | |
| 11.4.2 | Discuss the anatomy of radial nerve in the arm. | | | | | | | |
| 11.4.3 | Define Saturday night paralysis. | | | | | | | |
| 11.4.4 | Discuss the mechanism of injury in Saturday night paralysis. | | | | | | | |
| 11.4.5 | Discuss the clinical features and investigations of radial nerve injury in the arm. | | | | | | | |

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|--------|---|--|--|--|--|--|--|--|
| 11.4.6 | Discuss the general principles of management of compression neuropathy. | | | | | | | |
|--------|---|--|--|--|--|--|--|--|

| | | | | | | | | |
|--------------------------------------|--|----------|------------------|----------|---------------------|---------------------------|---------------------|--|
| AN17.2 | Describe anatomical basis of complications of fracture neck of femur, | K | K/K H | N | Lectur e | Written/Viva voice | orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 17.2.1 | Discuss the blood supply of femoral head. | | | | | | | |
| 17.2.2 | Enumerate the complications of fracture neck of femur. | | | | | | | |
| 17.2.3 | Discuss the reasons for high incidence of nonunion of fracture neck of femur. | | | | | | | |
| 17.2.4 | Discuss the reasons for high incidence of avascular necrosis of femoral head | | | | | | | |
| AN17.3 | Describe dislocation of hip joint and surgical hip replacement. | K | K/K H | N | Lectur e | Written/Viva voice | Orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 17.3.1 | Classify hip dislocations. | | | | | | | |
| 17.3.2 | Classify posterior hip dislocation. | | | | | | | |
| 17.3.3 | Discuss the mechanism of injury, clinical features and investigations of posterior dislocation. | | | | | | | |
| 17.3.4 | Discuss the closed reduction methods for posterior dislocation. | | | | | | | |
| 17.3.5 | Enumerate the indications for open reduction of posterior dislocation. | | | | | | | |
| 17.3.6 | List the complications of dislocation of hip. | | | | | | | |
| 17.3.7 | Differentiate hemiarthroplasty and total hip arthroplasty. | | | | | | | |
| 17.3.8 | Differentiate unipolar and Bipolar hemiarthroplasty. | | | | | | | |
| 17.3.9 | Enumerate the indications of hemiarthroplasty. | | | | | | | |
| 17.3.10 | Enumerate the common indications for total hip arthroplasty | | | | | | | |

| | | | | | | | | |
|--------------------------------------|---|----------|-----------|----------|----------------|----------------------------|---------------------|--|
| AN18.6 | Describe knee joint injuries with its applied anatomy. | K | KH | N | Lecture | Written//Viva voice | orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 18.6.1 | Enumerate the common knee injuries. | | | | | | | |
| 18.6.2 | Describe the anatomy of ligaments of the knee. | | | | | | | |
| 18.6.3 | Describe the anatomy of the meniscus. | | | | | | | |
| 18.6.4 | Descriptive the mechanism of injury, various tests and investigations in ACL injury. | | | | | | | |
| 18.6.5 | Discuss the general principles of management of ACL injury. | | | | | | | |
| 18.6.6 | Describe the mechanism of injury, various tests and investigations in meniscus injury. | | | | | | | |
| 18.6.7 | Discuss the general principles of management of meniscus injury | | | | | | | |
| AN18.7 | Explain anatomical basis of osteoarthritis | K | KH | N | Lecture | Written/Viva voice | Orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 18.7.1 | Define osteoarthritis. | | | | | | | |
| 18.7.2 | Classify osteoarthritis. | | | | | | | |
| 18.7.3 | Discuss the aetiopathogenesis of primary osteoarthritis. | | | | | | | |
| 18.7.4 | Discuss the changes in articular cartilage in primary osteoarthritis. | | | | | | | |
| 18.7.5 | Discuss the secondary causes of osteoarthritis | | | | | | | |

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|--------------------------------------|--|----------|-----------|----------|----------------|---------------------------|---------------------|--|
| AN19.4 | Explain the anatomical basis of rupture of Achillestendon | K | KH | N | Lecture | Written/Viva voice | orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 19.4.1 | Discuss the anatomy of Achilles tendon. | | | | | | | |
| 19.4.2 | Discuss the pathoanatomy of rupture of Achillestendon. | | | | | | | |
| 19.4.3 | Discuss the mechanism of injury in tear of Achilles tendon. | | | | | | | |
| AN19.6 | Explain the anatomical basis of flat foot & club foot | K | KH | N | Lecture | Written/Viva voice | Orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 19.6.1 | Define flatfoot. | | | | | | | |
| 19.6.2 | Discuss the arches of foot. | | | | | | | |
| 19.6.3 | Describe the pathoanatomy of flatfoot. | | | | | | | |
| 19.6.4 | Discuss the etiology of flatfoot. | | | | | | | |
| 19.6.5 | Define CTEV | | | | | | | |
| 19.6.6 | Discuss the pathoanatomy of CTEV | | | | | | | |
| 19.6.7 | Discuss the etiology of CTEV | | | | | | | |

| | | | | | | | | |
|--------------------------------------|--|----------|-----------|----------|----------------|---------------------------|---------------------|--|
| AN19.7 | Explain the anatomical basis of Metatarsalgia & plantar fasciitis | K | KH | N | Lecture | Written/Viva voice | Orthopaedics | |
| Specific learning objectives: | | | | | | | | |
| 19.7.1 | Define metatarsalgia. | | | | | | | |
| 19.7.2 | Classify metatarsalgia. | | | | | | | |
| 19.7.3 | Enumerate the causes for metatarsalgia. | | | | | | | |
| 19.7.4 | Discuss the risk factors responsible for metatarsalgia. | | | | | | | |
| 19.7.5 | Define plantar fasciitis. | | | | | | | |
| 19.7.6 | Discuss the structure and function of plantar fascia. | | | | | | | |
| 19.7.7 | Discuss the risk factors responsible for plantar fasciitis | | | | | | | |

| PATHOLOGY | | | | | | | | |
|-------------------------------|--|---|--------|---|---------------------------------|---------------------|--|-----------------------------|
| PA33.1 | Classify and describe the etiology , pathogenesis , manifestation , radiologic and morphologic features and complications of osteomyelitis | K | K H | Y | Lecture, Small group discussion | Written/ Viva voice | | Human anatomy Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 33.1.1 | Classify osteomyelitis. | | | | | | | |
| 33.1.2 | Discuss aetiopathogenesis of acute osteomyelitis. | | | | | | | |
| 33.1.3 | Discuss the clinical features and investigations in acute osteomyelitis. | | | | | | | |
| 33.1.4 | Discuss the clinical features and radiological findings in chronic osteomyelitis. | | | | | | | |
| 33.1.5 | Discuss the pathologic morphology in osteomyelitis. | | | | | | | |
| 33.1.6 | Enumerate the complications of osteomyelitis | | | | | | | |
| PA33.2 | Classify and describe the etiology , pathogenesis , manifestations, radiologic and morphologic features and complications and metastases of bone tumors. | K | K H | Y | Lecture, Small group discussion | Written/Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 33.2.1 | Classify skeletal metastasis. | | | | | | | |
| 33.2.2 | Describe the mechanism of bone metastasis. | | | | | | | |
| 33.2.3 | Describe the clinical features and investigative work up in bone metastasis. | | | | | | | |
| 33.2.4 | Discuss the principles of management of skeletal metastasis. | | | | | | | |
| 33.2.5 | Discuss the complication of skeletal metastasis | | | | | | | |

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| PA33.4 | Classify and describe the etiology , pathogenesis , manifestations, radiologic and morphogenic featuresand complications of Paget’s disease of the bone. | K | KH | N | Lecture, Small group discussion | Written/Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 33.4.1 | Define Paget’s disease. | | | | | | | |
| 33.4.2 | Discuss the pathophysiology of Paget’s disease. | | | | | | | |
| 33.4.3 | Discuss the clinical features, diagnostics anddifferential diagnosis of Paget’s disease. | | | | | | | |
| 33.4.4 | Discuss principles of management of Paget’s disease. | | | | | | | |
| 33.4.5 | Discuss the complications of Paget’s disease | | | | | | | |

| Microbiology | | | | | | | | |
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| MI4.2 | Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of bone and joint infections. | K | KH | Y | Lecture | Written/Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 4.2.1 | Discuss the aetiopathogenesis of acute osteomyelitis. | | | | | | | |
| 4.2.2 | Discuss the aetiopathogenesis of acute septic arthritis. | | | | | | | |
| 4.2.3 | Discuss the clinic features of acute osteomyelitis. | | | | | | | |
| 4.2.4 | Discuss the clinical features of acute septic arthritis. | | | | | | | |
| 4.2.5 | Discuss the laboratory diagnosis of acute osteomyelitis, chronic osteomyelitis and acute septic arthritis. | | | | | | | |

| Forensic medicine | | | | | | | | |
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| FM3.7 | Describe factors influencing infliction of injuries and healing, examination and certification of wounds and wound as a cause of death : primary and secondary. | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voice | | Forensic medicine. Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 3.7.1 | Describe the factors influencing the causation of an injury. | | | | | | | |
| 3.7.2 | Describe the factors that influence healing of an injury or fracture. | | | | | | | |
| 3.7.3 | Discuss the primary and secondary causes of death from a wound. | | | | | | | |
| FM3.8 | Mechanical injuries and wounds: describe and discuss different types of weapons including dangerous weapons and their examination. | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voice | | General surgery. Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 3.8.1 | Identify the weapons that cause blunt force and sharp force injuries. | | | | | | | |
| 3.8.2 | Define dangerous weapon (S.324 IPC and 326 IPC) | | | | | | | |

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| FM3.9 | Firearm injuries: Describe different types of firearms including structure and components, along with description of ammunition propellant charge and mechanism of fire-arms , different types of cartridges and bullets and various terminology in relation of firearm – caliber range , choking. | K | K/KH | Y | Lecture, Small group discussion | Written /Viva voice | | General surgery. Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 3.9.1 | Define Forensic ballistics, Proximal ballistics, Intermediate ballistics and Terminal ballistics. | | | | | | | |
| 3.9.2 | Define firearm | | | | | | | |
| 3.9.3 | Classify firearms. | | | | | | | |
| 3.9.4 | Enumerate the parts of the basic firearms. | | | | | | | |
| 3.9.5 | Explain ‘ rifling’ and ‘caliber’ of a firearm. | | | | | | | |
| 3.9.6 | Explain choking in a firearm and its purpose. | | | | | | | |
| 3.9.7 | Enumerate the components of rifled firearm and shotgun and its function . | | | | | | | |
| 3.9.8 | Describe the types of gunpowder. | | | | | | | |
| 3.9.9 | Discuss on types of bullets and pellets. | | | | | | | |

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| FM3.10 | Firearm injuries: Describe and discuss wound ballistics- different types of firearm injuries, blast injuries and their interpretation, preservation and dispatch of trace evidenced in cases of firearm and blast injuries. Various tests related to confirmation of use of firearms. | K | K/ KH | Y | Lecture , Small group discussion. Bed side clinic DOAP session | Written/Vive voice/OSCE | General orthopaedics. | |
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| Specific learning objectives: | | | | | | | | |
| 3.10.1 | Define wound ballistics. | | | | | | | |
| 3.10.2 | Enumerate the factors affecting gunshot wound production. | | | | | | | |
| 3.10.3 | Explain the mechanism of firing and various components of discharge of firing. | | | | | | | |
| 3.10.4 | Describe the entry and exit wounds from rifled firearm at various Ranges. | | | | | | | |
| 3.10.5 | Describe the entry and exit wounds from a shotgun at various Ranges. | | | | | | | |
| 3.10.6 | Discuss on Ricocheting of a bullet and its effect. | | | | | | | |
| 3.10.7 | Discuss on tumbling bullet, Yawning bullet, Dumdum bullet, Tandem bullet, Souvenir bullet. | | | | | | | |
| 3.10.8 | List the evidentiary materials to be collected and preservation of evidentiary materials in gunshot wounds. | | | | | | | |
| 3.10.9 | Describe the method of collection and preservation of evidentiary Materials in gunshot wounds. | | | | | | | |
| 3.10.10 | Describe the significance of bullet markings and use of comparison microscope. | | | | | | | |
| 3.10.11 | Enumerate the tests done for detection of gunshot residue. | | | | | | | |
| 3.10.12 | Describe the injuries caused by bomb blast/explosion . | | | | | | | |
| 3.10.13 | Discuss the diagnostic evaluation in blast injury. | | | | | | | |
| 3.10.14 | Describe the management of blast injury. | | | | | | | |

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| FM3.11 | Regional injuries: Describe and discuss regional injuries to head (Scalp wounds, fracture skull, intracranial hemorrhages , coup and countercoup injuries) neck, chest , abdomen, limbs ,genital organs, spinal cord and skeleton. | K | K/KH | Y | Lecture, Small group discussion, Bed side clinic or autopsy , DOAP session | Written/Viva voice/OSCE/OS PE | | General surgery. Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 3.11.1 | Define head injury. | | | | | | | |
| 3.11.2 | Discuss the forensic anatomy of scalp and scalp injuries. | | | | | | | |
| 3.11.3 | Enumerate the types of skull fracture. | | | | | | | |
| 3.11.4 | Describe the intracranial hemorrhages and its medicolegal aspects. | | | | | | | |
| 3.11.5 | Describe the cerebral injuries and its medicolegal aspects. | | | | | | | |
| 3.11.6 | Explain ‘concussion of brain’ and ‘diffuse axonal injury’. | | | | | | | |
| 3.11.7 | Discuss on punch drunk syndrome. | | | | | | | |
| 3.11.8 | Describe the mechanism , clinical features and medicolegal aspects Of whiplash injury. | | | | | | | |
| 3.11.9 | Discuss on ‘railway spine’. | | | | | | | |
| 3.11.10 | Discuss on injuries to chest , abdomen and genital organs. | | | | | | | |

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| FM3.12 | Reginal injuries: Describe and discuss injuries related to fall from height and vehicular injuries – Primary and Secondary impact, Secondary injuries , crush syndrome , railway spine. | K | K/KH | Y | Lecture, Small group discussion, Bedside clinic or autopsy, DOAP session | Written/ Viva voice/OSCE/OPSE | | General surgery. Orhopaedics. |
| Specific learning objectives: | | | | | | | | |
| 3.12.1 | Describe the injuries sustained to person in a fall from height . | | | | | | | |
| 3.12.2 | Describe the injuries to a pedestrian in vehicular accident (primary impact , second impact and secondary injuries) | | | | | | | |
| 3.12.3 | Describe the injuries to driver , front seat passenger and back seat passenger of a motor car. | | | | | | | |
| 3.12.4 | Discuss on ‘Crush syndrome’. | | | | | | | |

| General medicine | | | | | | | | |
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| IM7.5 | Develop a systematic clinical approach to joint pain based on the pathophysiology. | K | K/KH | Y | Lecture, Small group discussion. | Written/Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.5.1 | Enumerate the common causes of joint pain. | | | | | | | |
| 7.5.2 | Discuss the pathophysiology of joint pain. | | | | | | | |
| 7.5.3 | List the causes of joint pain structurally arising from within the joint. | | | | | | | |
| 7.5.4 | Enumerate the causes of joint pain arising from structures around the joint. | | | | | | | |
| 7.5.5 | Enumerate various causes of joint pain because of referred pain. | | | | | | | |
| 7.5.6 | Discuss synovitis as a cause for joint pain. | | | | | | | |
| 7.5.7 | Discuss enthesitis as a cause for joint pain. | | | | | | | |
| 7.5.8 | Discuss crystal deposition as a cause for joint pain | | | | | | | |

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| IM7.6 | Describe and discriminate acute, subacute and chronic causes of joint pain. | K | K/K H | Y | Lecture, Small group discussion. | Written/Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.6.1 | Enumerate the various causes of acute joint pain. | | | | | | | |
| 7.6.2 | Enumerate the various causes of chronic joint pain. | | | | | | | |
| 7.6.3 | Differentiate acute joint pain from chronic joint pain. | | | | | | | |
| 7.6.4 | Discuss the differential diagnosis of acute joint pain. | | | | | | | |
| 7.6.5 | Discuss the differential diagnosis of chronic joint pain. | | | | | | | |
| IM7.7 | Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain | K | K/K H | Y | Lecture, Small group discussion | Written/ Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.7.1 | Define arthritis. | | | | | | | |
| 7.7.2 | Define arthralgia. | | | | | | | |
| 7.7.3 | Differentiate between arthritis and arthralgia. | | | | | | | |
| 7.7.4 | Enumerate the causes of mechanical joint pain with examples. | | | | | | | |
| 7.7.5 | Enumerate the causes of inflammatory joint pain with examples. | | | | | | | |
| 7.7.6 | Differentiate mechanical joint pain from inflammatory joint pain | | | | | | | |

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| IM7.8 | Discriminate , describe and discuss distinguishing articular from periarticular complaints. | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.8.1 | Discuss the clinical features of joint pain arising from intra-articular structures. | | | | | | | |
| 7.8.2 | Discuss the clinical features of joint pain arising from periarticular structures. | | | | | | | |
| 7.8.3 | Differentiate the articular and periarticular joint pain. | | | | | | | |
| IM7.9 | Determine the potential causes of joint pain based on the presenting features of joint involvement. | K | K/KH | Y | Lecture , Small group discussion | Written/ Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.9.1 | Enumerate various presenting symptoms of joint pain conditions. | | | | | | | |
| 7.9.2 | Differentiate various conditions of joint pain by presenting symptoms. | | | | | | | |
| IM7.10 | Describe the common signs and symptoms of articular and periarticular diseases. | K | K/KH | Y | Lecture, Small group discussion | Written/Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.10.1 | Discuss the clinical features of various articular conditions. | | | | | | | |
| 7.10.2 | Discuss the clinical features of periarticular joint conditions | | | | | | | |

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| IM7.13 | 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 | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.13.1 | Perform the clinical examination of Hip joint. | | | | | | | |
| 7.13.2 | Perform the clinical examination of Knee joint. | | | | | | | |
| 7.13.3 | Perform the clinical examination of Shoulder joint. | | | | | | | |
| 7.13.4 | Perform the clinical examination of Elbow joint. | | | | | | | |
| 7.13.5 | Perform the clinical examination of Wrist and Hand | | | | | | | |
| 7.13.6 | Perform the clinical examination of Foot and Ankle. | | | | | | | |
| IM7.17 | Enumerate the indications for arthrocentesis. | K | K | Y | Lecture , Small group discussion. | Written/ Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.17.1 | Describe arthrocentesis. | | | | | | | |
| 7.17.2 | Describe various indications for arthrocentesis | | | | | | | |

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| IM7.18 | Enumerate the indications and interpret plain radiographs of joints. | K | SH | Y | Bedside clinic, Small group discussion. | Skill assessment/ Written | Radiodiagnosis | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.18.1 | Enumerate the investigations for joint pain. | | | | | | | |
| 7.18.2 | Enumerate the indications for radiological examination of joint pain. | | | | | | | |
| 7.18.3 | Enumerate various radiological findings in arthritis of a joint. | | | | | | | |
| 7.18.4 | Discuss the radiological findings of osteoarthritis knee joint. | | | | | | | |
| 7.18.5 | Discuss the radiological findings in tuberculosis knee joint. | | | | | | | |
| 7.18.6 | Discuss the radiological findings in tuberculosis of hip joint. | | | | | | | |
| IM7.21 | Select, prescribe and communicate appropriate medications for relief of joint pain. | K / C | SH | Y | DOAP session | Skill assessment/ Written | Pharmacology. | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.21.1 | Discuss the pathophysiology of joint pain. | | | | | | | |
| 7.21.2 | Enumerate the causes of joint pain . | | | | | | | |
| 7.21.3 | How do you evaluate joint pain. | | | | | | | |
| 7.21.4 | Discuss WHO analgesics ladder. | | | | | | | |
| 7.21.5 | Describe the role of opioid analgesics used in osteoarthritis | | | | | | | |
| 7.21.6 | Enumerate NSAIDs group analgesics used in relief of joint pain. | | | | | | | |
| 7.21.7 | Mention parental analgesics used in relief of joint pain. | | | | | | | |
| 7.21.8 | Discuss the side effects of chronic use of NSAIDs in a osteoarthritic joint pain. | | | | | | | |
| 7.21.9 | Name some topical analgesics. | | | | | | | |

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| 7.21.10 | Discuss the role of intra-articular steroid injections. | | | | | | | |
| 7.21.11 | Discuss the role of viscosupplementation in osteoarthritis. | | | | | | | 97 |

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| IM24.12 | Describe and discuss the aetiopathogenesis , clinical presentation,identification, functional changes , acute care, stabilization, management and rehabilitation of degenerative joint disease. | K | K H | Y | Lecture , Small group discussion. | Written/Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 24.12.1 | Define degenerative joint disease. | | | | | | | |
| 24.12.2 | Discuss the aetiopathogenesis of degenerative joint disease. | | | | | | | |
| 24.12.3 | Describe the clinical features of degenerative joint disease. | | | | | | | |
| 24.12.4 | Discuss the loss of functional activity in degenerative joint disease. | | | | | | | |
| 24.12.5 | Discuss the management of early osteoarthritis. | | | | | | | |
| 24.12.6 | Discuss the principles of management of degenerative joint disease. | | | | | | | |
| 24.12.7 | Discuss the physical therapy and rehabilitation of degenerativeJoint pain | | | | | | | |

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| IM24.13 | Describe and discuss the aetipathogenesis , clinical presentation, identifications, functional changes , acute care,stabilization, management and rehabilitation of falls in the elderly. | K | K H | Y | Lecture ,Small group discussion. | Written/ Viva voice | | Orthopaedics. Physical medicine and rehabilitation. |
| Specific learning objectives: | | | | | | | | |
| 24.13.1 | Discuss the causes of falls in elderly. | | | | | | | |
| 24.13.2 | Discuss the common factures in elderly because of falls. | | | | | | | |
| 24.13.3 | List the common presentation features following falls in elderly patients. | | | | | | | |
| 24.13.4 | Discuss the acute care management of fractures in elderly. | | | | | | | |
| 24.13.5 | Discuss general principles of management of fractures in elderly. | | | | | | | |
| 24.13.6 | Discuss the rehabilitation of elderly fractured patient. | | | | | | | |
| 24.13.7 | Describe the preventive steps to avoid falls in elderly | | | | | | | |

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| IM24.16 | Describe and discuss the principles of physical and social rehabilitation , functional assessment , role ofphysiotherapy and occupation therapy in the management of disability in the elderly. | K | KH | Y | Lecture, Small group discussion. | Written/ Viva voice | | Orthopaedics. Physical medicineand rehabilitation. |
| Specific learning objectives: | | | | | | | | |
| 24.16.1 | Discuss the common form of disability in elderly. | | | | | | | |
| 24.16.2 | Discuss ageing and disability. | | | | | | | |
| 24.16.3 | Discuss disability of elderly population in India. | | | | | | | |
| 24.16.4 | Discuss the general principles of physical and socialrehabilitation of the disabled elderly. | | | | | | | |
| 24.16.5 | Discuss the occupational therapy for a disabledelderly | | | | | | | |

| Physical Medicine & Rehabilitation | | | | | | | | |
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| PM1.2 | Define and describe disability, its cause and magnitude, identification and prevention of disability. | K | K/KH | Y | Lecture, Small group discussion | Written/ Viva voice | | General medicine · Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 1.2.1 | Define disability. | | | | | | | |
| 1.2.2 | Describe the various causes of disabilities. | | | | | | | |
| 1.2.3 | Classify disability. | | | | | | | |
| 1.2.4 | Define impairment. | | | | | | | |
| 1.2.5 | Differentiate temporary and permanent disability. | | | | | | | |
| 1.2.6 | Define handicap. | | | | | | | |
| 1.2.7 | List various domains of functioning which can be affected by disability. | | | | | | | |
| 1.2.8 | Discuss the prevalence of disability in India and worldwide. | | | | | | | |
| PM1.3 | Define and describe the methods to identify and prevent disability | K | K/KH | Y | Lecture, Small group discussion | Written/Viva voice | | General medicine Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 1.3.1 | Discuss the methods of identification of various disabilities. | | | | | | | |
| 1.3.2 | Discuss identification of locomotor disability in achild. | | | | | | | |
| 1.3.3 | Discuss the checklist for identification of childrenwith special needs. | | | | | | | |
| 1.3.4 | Differentiate primary, secondary and tertiaryprevention of disabilities. | | | | | | | |
| 1.3.5 | Discuss disability management | | | | | | | |

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| PM1.4 | Enumerate the rights and entitlements of differently abled persons | K | K | Y | Lecture, Small group discussion | Written/ Viva voice | | General medicine. Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 1.4.1 | Discuss the rights of differently abled persons. | | | | | | | |
| 1.4.2 | Define " persons with benchmark disabilities". | | | | | | | |
| 1.4.3 | Discuss the rights and entitlement of differently abled persons. | | | | | | | |
| 1.4.4 | Enumerate additional benefits provided for persons with benchmark disabilities and those with high support needs | | | | | | | |

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| PM4.3 | Observe in a mannequin or equivalent the administration of an intra-articular injection | S | KH | N | DOAP session | Skill assessment | | Orthopaedics |
| Specific learning objectives: | | | | | | | | |
| 4.3.1 | List out the indications for intra-articular injections. | | | | | | | |
| 4.3.2 | Demonstrate the sterile precautions to be taken while administering intra-articular injection. | | | | | | | |
| 4.3.3 | Enumerate the drugs used to be injected as intra-articular formulations. | | | | | | | |
| 4.3.4 | Surface marking of joint line and position of the joint for intra-articular injection to be elicited. | | | | | | | |
| 4.3.5 | Depiction of post intra-articular injection care and rehabilitation. | | | | | | | |
| 4.3.6 | Recent advances in the modality of intra-articular injection. | | | | | | | |
| 4.3.7 | Explain the guided intra-articular injections | | | | | | | |
| PM4.5 | Demonstrate correct assessment of muscle strength and range of movements | S | SH | Y | DOAP session, Bedside clinic | Skill assessment | | General medicine Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 4.5.1 | List out the MRC grading of muscle power. | | | | | | | |
| 4.5.2 | Explain the types of joints. | | | | | | | |
| 4.5.3 | Demonstrate the movements across each major joint of upper limb. | | | | | | | |

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| 4.5.4 | Demonstrate the various movements across eachmajor joint of lower limb. | | | | | | | |
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| PM5.1 | Enumerate the indications and describe the principles of amputation. | K | KH | Y | Lecture , Small group discussion. | Written/ Viva voice | | Orthopaedics. General Surgery. |
| Specific learning objectives: | | | | | | | | |
| 5.1.1 | Define amputation. | | | | | | | |
| 5.1.2 | Define disarticulation. | | | | | | | |
| 5.1.3 | Enumerate the indications of amputations. | | | | | | | |
| 5.1.4 | Discuss the general principles in techniques of amputation and disarticulations. | | | | | | | |
| 5.1.5 | Enumerate the complications of amputation. | | | | | | | |
| PM5.2 | Describe the principles of early mobilizations, evaluation of the residual limb, contralateral limb and the influence of co-morbidities. | K | KH | Y | Lecture, Small group discussion. | Written/ Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 5.2.1 | Discuss the principles of early mobilization of a amputee patient. | | | | | | | |
| 5.2.2 | Discuss ideal stump in an amputated patient. | | | | | | | |
| 5.2.3 | Discuss the evaluation of the amputation stump for prosthesis fitting. | | | | | | | |
| 5.2.4 | Discuss the rehabilitation following amputation. | | | | | | | |
| 5.2.5 | Discuss the factors affecting the rehabilitation of a amputated patient. | | | | | | | |
| 5.2.6 | Discuss the influence of co morbidities in an amputated patient. | | | | | | | |

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| PM5.3 | Demonstrate the correct use of crutches in ambulation and postures to correct contractures and deformities | S | SH | Y | DOAP session, Bedside clinic discussion | Skill assessment | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 5.3.1 | List the indications for use of crutches. | | | | | | | |
| 5.3.2 | Enumerate various types crutches. | | | | | | | |
| 5.3.3 | Demonstrate the correct use of crutches while standing, walking, sitting and climbing stairs. | | | | | | | |
| 5.3.4 | Define contracture. | | | | | | | |
| 5.3.5 | Define deformity. | | | | | | | |
| 5.3.6 | Discuss the causes for contractures and deformities. | | | | | | | |
| 5.3.7 | Discuss various preventive measures to avoid contractures and deformities. | | | | | | | |
| 5.3.8 | Discuss how do you prevent contractures in bedridden patients | | | | | | | |
| PM5.4 | Identify the correct prosthesis for common amputations. | S | SH | Y | DOAP session | Skill assessment/Written | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 5.4.1 | Define prosthesis. | | | | | | | |
| 5.4.2 | Enumerate various lower limb prostheses. | | | | | | | |
| 5.4.3 | Enumerate various upper limb prostheses. | | | | | | | |
| 5.4.4 | Identify correct prosthesis for above knee amputation. | | | | | | | |
| 5.4.5 | Identify correct prosthesis for below knee amputation. | | | | | | | |

| | | | | | | | | |
|-------|---|--|--|--|--|--|--|-----|
| 5.4.6 | Identify upper limb prosthesis with respect to level of amputation. | | | | | | | 105 |
|-------|---|--|--|--|--|--|--|-----|

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|-------------------------------|--|---|----|---|----------------------------------|---------------------|--|---------------|
| PM6.3 | Describe the 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 voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 6.3.1 | Define traction. | | | | | | | |
| 6.3.2 | Enumerate types of traction. | | | | | | | |
| 6.3.3 | Discuss the conditions in which traction is used. | | | | | | | |
| 6.3.4 | List the indications for skin tractions in upper and lower limbs. | | | | | | | |
| 6.3.5 | Discuss the technique of skin traction application and its complications. | | | | | | | |
| 6.3.6 | Define serial cast technique. | | | | | | | |
| 6.3.7 | Enumerate common indications for serial cast technique. | | | | | | | |
| 6.3.8 | Discuss the principles of deformity corrections by surgical release. | | | | | | | |
| 6.3.9 | List some conditions where surgical release of contracted structures is performed to correct deformity. | | | | | | | |
| 6.3.10 | Define tendon transfer | | | | | | | |
| 6.3.11 | List the indications for tendon transfers. | | | | | | | |
| 6.3.12 | Discuss the principles of tendon transfers. | | | | | | | |
| 6.3.13 | Define osteotomy. | | | | | | | |
| 6.3.14 | Enumerate common indications for osteotomies. | | | | | | | |
| 6.3.15 | Discuss the general principles of osteotomy. | | | | | | | |
| 6.3.16 | Define arthrodesis. | | | | | | | |
| 6.3.17 | Enumerate the indications of arthrodesis. | | | | | | | |
| 6.3.18 | Discuss the general principles of arthrodesis procedure | | | | | | | 106 |

| | | | | | | | | |
|--------------------------------------|--|----------|-----------|----------|---|----------------------------|--|----------------------|
| PM6.4 | Describe the principles of orthosis for ambulation inPPRP | K | KH | Y | Lecture, Small group discussion. | Written/ Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 6.4.1 | Define PPRP. | | | | | | | |
| 6.4.2 | Define orthosis. | | | | | | | |
| 6.4.3 | Discuss the general principles of orthoticmanagement of PPRP. | | | | | | | |
| 6.4.4 | Enumerate the common orthosis used for lower limb,spine and upper limb in PRPP | | | | | | | |
| PM7.1 | Describe and discuss the clinical features , diagnosticwork up, work up diagnosis and management of spinal cord injury. | K | KH | Y | Lecture, Small group discussion. | Written/ Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.1.1 | Define complete spinal cord injury. | | | | | | | |
| 7.1.2 | Differentiate complete and incomplete cord injury. | | | | | | | |
| 7.1.3 | Discuss spinal shock. | | | | | | | |
| 7.1.4 | Discuss the aetiopathogenesis of spinal cord injury. | | | | | | | |
| 7.1.5 | Discuss the clinical features of spinal cord injury. | | | | | | | |
| 7.1.6 | Discuss the evaluation and diagnosis of spinal cordinjuries. | | | | | | | |
| 7.1.7 | Discuss the management of spinal cord injury. | | | | | | | |
| 7.1.8 | Discuss the prognosis of spinal cord injury. | | | | | | | |

| | | | | | | | | |
|--------------------------------------|--|----------|-----------|----------|--|--------------------------|--|----------------------|
| PM7.2 | Describe and demonstrate process of transfer, applications of collar restraints while maintaining airway and prevention of secondary injury in a mannequin/model. | S | SH | Y | DOAP session, Small group discussion. | Skill assessment. | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.2.1 | Demonstrate the transfer process of polytrauma patient. | | | | | | | |
| 7.2.2 | Differentiate primary and secondary transport. | | | | | | | |
| 7.2.3 | Discuss the risks associated during transportation. | | | | | | | |
| 7.2.4 | Discuss the safety of patient transport. | | | | | | | |
| 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 | Bedside clinic. | Skill assessment | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.3.1 | Perform neurological examination in Quadriplegia patient. | | | | | | | |
| 7.3.2 | Perform neurological examination in paraplegia patient. | | | | | | | |
| 7.3.3 | Perform neurological examination in paraparesis patient. | | | | | | | |

| | | | | | | | | |
|-------------------------------|--|---|----|---|----------------------------------|---------------------------------|--|------------------------------------|
| PM7.4 | Assess bowel and bladder function and identify common patterns of bladder dysfunction | S | KH | Y | Small group discussion | Written/Viva voice | | General medicine. Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.4.1 | Enumerate the causes of bowel and bladder dysfunction. | | | | | | | |
| 7.4.2 | Describe the nerve supply of bladder | | | | | | | |
| 7.4.3 | Explain the types of bladder in spinal cord injury (SCI). | | | | | | | |
| PM7.5 | Enumerate the indications and identify the common mobility aids and appliances, wheel chairs. | S | S | Y | DOAP session | Skill assessment/ Viva voice | | Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.5.1 | Name the common mobility aids. | | | | | | | |
| 7.5.2 | Explain walking stick and walking frame | | | | | | | |
| 7.5.3 | Role of wheel chairs in orthopedics and neurology | | | | | | | |
| 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 voice | | General medicine. Orthopaedics. |
| Specific learning objectives: | | | | | | | | |
| 7.7.1 | Describe the pathophysiology, investigations and management of deep vein thrombosis (DVT) and preventive measures in DVT in follow up case of SCI. | | | | | | | |
| 7.7.2 | Discuss the pathophysiology, investigations and management of aspiration pneumonia | | | | | | | |

| | | | | | | | | |
|-------|--|--|--|--|--|--|--|--|
| 7.7.3 | Enumerate the pathophysiology, investigations, management and preventive measures in autonomic dysreflexia in follow up case of SCI. | | | | | | | |
|-------|--|--|--|--|--|--|--|--|

| | | | | | | | | |
|-------------------------------|---|---|----|---|-----------------------------------|---------------------|--|---|
| PM8.1 | Describe the clinical features , evaluation , diagnosis and management of disability followingtraumatic brain injury. | K | KH | Y | Lecture , Small group discussion. | Written/ Viva voice | | General medicine. Orthopaedics. General surgery . |
| Specific learning objectives: | | | | | | | | |
| 7.8.1 | Discuss the clinical features of traumatic braininjury (TBI). | | | | | | | |
| 7.8.2 | Discuss the neurological status of traumatic braininjury . | | | | | | | |
| 7.8.3 | Evaluate the diagnostic modality of traumatic braininjury | | | | | | | |
| 7.8.3 | Discuss t the management of disability of traumaticbrain injury | | | | | | | |

E. SELF DIRECTED LEARNING (10 Hours)

| Sl No | MBBS PHASE III Part 1 | MBBS PHASE III Part 2 |
|-------|---------------------------------|----------------------------------|
| 1 | OR1.1- Polytrauma, ATLS | OR 2.7- Pelvic Injury and Shock |
| 2 | OR 1.6- Dislocations | OR 2.8- Spinal cord injury |
| 3 | OR 2.15- Compartment Syndrome | OR 3.1- Osteomyelitis |
| 4 | PM 5.3- Crutches, Mobility Aids | OR 10.1- Malignant Bone Tumor |
| 5 | PM 5.4- Amputation , Prosthesis | OR 11.1- Peripheral Nerve injury |

SDL EXAMPLE 1: Case Scenario:- Polytrauma

A 35-year-old man is brought to the emergency department following a motorcycle accident. He is breathing spontaneously and has asystolic blood pressure of 80 mm Hg, a pulse rate of 120/min, and a temperature of 98.6° F (37° C). Examination suggests an unstable pelvic fracture. Ultrasound evaluation of the abdomen is negative. Despite administration of 4 L of normal saline solution, he still has asystolic pressure of 90 mm Hg and a pulse rate of 110. Urine output has been about 20 mL since arrival 35 minutes ago. Discuss Management of this patient

Learning objectives

- A. Classify a polytrauma patient to one of the four groups (stable, borderline, unstable, extremis) based on the physiology
- B. Learn which injury pattern and physiologic parameters can lead to ARDS and MODS in the polytrauma patient
- C. Outline the latest advances in resuscitation (ATLS)
- D. Define the role of orthopedic surgery in saving life and limb after major trauma
- E. Identify patients that can safely have early total care
- F. Consider the suitability of damage control surgery
- G. Set priorities for management of injuries - Long bone vs Pelvic Ring

SDL EXAMPLE 2: Case Scenario:- Compartment Syndrome

20 year old male patient was treated conservatively with a cast for fracture of right radius and ulna. He comes to ER 24hours later with severe pain ion his forearm.

What is the most likely diagnosis?

Learning objectives

- A. What is compartment syndrome?
- B. What are clinical signs of compartment syndrome?
- C. What is the pathophysiology behind compartment syndrome?
- D. How do you measure compartment pressure?
- E. What would have prevented this complication?
- F. How do you manage this patient?- Investigations, medication, surgery
- G. What are the complications of compartment syndrome?

F. Topics for Electives

1. Trauma and fractures
2. Paediatric Orthopaedics
3. Orthopaedic adult reconstruction/ Joint Replacement
4. Orthopaedic spine
5. Orthopaedic sports
medicine
6. Geriatric orthopaedics
7. Musculoskeletal Oncology

G. Clinical Postings

| Learner - Doctor programme (Clinical) – As per GMER 2019 | |
|---|--|
| Year of Curriculum | Focus of Learner - Doctor programme |
| Phase I | Introduction to hospital environment, early clinical exposure, understanding perspectives of illness |
| Phase II | History taking, physical examination, assessment of change in clinical status, communication and patient education |
| Phase III Part 1 | All of the above and choice of investigations, basic procedures and continuity of care |
| Phase III Part 2 | All of the above and decision making, management and outcomes |

| | MBBS Phase II | MBBS Phase III Part I | MBBS Phase III Part 2 | Total weeks |
|---|---------------|-----------------------|-----------------------|----------------|
| Orthopedics - including Trauma and PMR | 2 weeks | 4 weeks | 2 weeks | 8 weeks |

List of Competencies to be considered in clinical Postings

| Bed Side Clinics | Case discussion | Demonstrations |
|--|---|--|
| OR1.5: Dislocation of joints | OR 3.4: Osteomyelitis/Septic Arthritis | AN8.4: Demonstrate important muscle attachment on the given bone |
| OR 2.1 to OR 2.16: Fractures | OR4.1: Tuberculosis of joints/spine | AN 10.12: Describe and demonstrate Shoulder joint for- type, articular surfaces, capsule, synovial membrane, ligaments, relations, movements, muscles involved, blood supply, nerve supply and applied anatomy |
| OR5,1: Inflammatory disorders of joints | OR6.1: Degenerative conditions of spine | OR13.1: Casts and Plasters |
| IM7.13: Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease | OR7.1,7.2: Metabolic Bone Disorders- osteoporosis, osteomalacia, rickets, Paget's disease | OR13.2: Splints and tractions |
| IM7.18: Enumerate the indications and interpret plain radiographs of joints | OR8.1: PPRP | PM5.3: Demonstrate the correct use of crutches in ambulation and postures to correct contractures and deformities |
| | OR 11.1- Peripheral Nerve injuries | |
| PM 4.5: Demonstrate correct assessment of muscle strength and range of movements | OR 12.1: Congenital - CTEV | |
| PM7.3: Perform and demonstrate a correct neurological examination in a patient with spinal injury and determine the neurologic level of injury | OR 10.1, 10.2: Tumors, swellings | |

| Model Time table for MBBS Phase II Clinical Postings | | | |
|--|--------------------------|--|---|
| Day | | Week 1 | Week 2 |
| Monday | Clinical case Discussion | History Taking and Basic Orthopaedic Examination (IM 7.5) | History and Examination of Shoulder Joint (IM 7.13.3) |
| Tuesday | Clinical case Discussion | History and Examination of bone and joint infection (PA33.1) | History and Examination of Elbow Joint (IM 7.13.4) |
| Wednesday | Clinical case Discussion | History and Examination of Knee Joint (IM 7.13.2) | History and Examination of Wrist Joint and Hand (IM 7.13.5) |
| Thursday | Clinical case Discussion | History and Examination of Ankle and Foot (IM 7.13.6) | History and Examination of Hip Joint (IM 7.13.1) |
| Friday | Clinical case Discussion | History taking and examination of deformed limb (OR 7.2) | History and Examination of Bone swelling/tumor (OR 10.2) |
| Saturday | X | X | X |

Model Time table for MBBS Phase III, Part 1 Clinical Postings

| Day | | Week 1 | Week 2 | Week 3 | Week 4 |
|------------|--------------------------|--|---|---|--|
| Monday | Clinical case Discussion | Infections –1 Osteomyelitis of longbones (PA33.1)) | Osteoarthritis KNEE (IM7.13.2, OR 2.3) | Malunion – Upperlimb(OR 2.15) | Examination of BoneTumor (OR 10.2) |
| Tuesday | Clinical case Discussion | Rickets/deformities (OR7.1,7.2) | Nerve injuries – Footdrop (OR11.1) | Frozen Shoulder/ Shoulder Impingement(IM 7.13.3) | Malunion – lowerlimb(OR 2.15) |
| Wednesday | Clinical case Discussion | Rheumatoid Arthritis/Ankylosing spondylitis(OR 5.1) | TB Hip/Knee (OR4.1) | Nerve injuries – Wristdrop/Claw Hand (OR11.1) | Septic Arthritis (OR3.4) |
| Thursday | Clinical case Discussion | Non- union (OR 2.15) | Ligamentous Injuries ofKnee (OR1.3, AN18.6) | Hip Deformity- Abnormal Gait (IM7.13.1) | Examination of Patient with claudication pain (OR 6.1) |
| Friday | Skill lab | Below and above elbow slab/cast (OR13.1) | Below and above Knee slab/cast(OR 13.1) | Reduction and cast application for Colle’sFracture. (OR 13.1) Strapping of Clavicle Fracture (OR 2.1) | ATLS – Basics (OR 1.1) |

| | | | | | |
|----------|---------------------------------|---|------------------|---|---------------|
| Saturday | Operating procedures /Skill Lab | Hand wash, Donning surgical gown and gloves, preparation of parts | Suturing Methods | Debridement of Osteomyelitis/ Saucerization | Tendon Repair |
| | | | | | 118 |

Model Time table for MBBS Phase III, Part 2 Clinical Postings

| Day | | Week 1 | Week 2 |
|-----------|---|--|--|
| Monday | Clinical case Discussion | Infections –2 Infected Non Union/ Ilizarov/external fixator (PA33.1)) | CTEV (AN19,6. OR 12.1) |
| Tuesday | Clinical case Discussion | Quadriplegia/Paraplegia (PM 7.3) | Examination of Bone Tumor (OR 10.2) |
| Wednesday | Clinical case Discussion | Recurrent Shoulder Dislocation (IM 7.13.3) | Elbow- Deformity (OR7.2) |
| Thursday | Instruments/Specimens/X-rays | X-rays and Specimens | Instruments, Implants, orthosis and prosthesis, |
| Friday | Skill lab | Skin traction and Thomas splintapplication (OR13.1) | Shoulder dislocation reduction Techniques(OR1.6) |
| Saturday | Operating procedures/ VideoAssisted Teaching | Intramedullary nailing | Plate Osteosynthesis |

H. Model Question Papers

Example 1

Time: 1 hour 30 minutes

Total Marks: 50

Long Essays- 10 Marks Each (2X10=20 Marks)

1. A 6 year old kid was brought to emergency department with pain swelling and in left elbow with difficulty on moving the elbow. Parents give a history of fall from height directly on elbow while playing.
 1. What is the most common pediatric elbow/distal humerus fracture?
 2. Mechanism of injury and classification
 3. Management
 4. Complications- acute and chronic

(1+3+3+3= 10Marks)
2. A 65 year old obese individual has come to the hospital with complaints of pain in both knees. Discuss clinical examination Investigations and various treatment modalities of Osteoarthritis of knee (3+3+4=10)
 1. Osteoclastoma - definition, Histology, management
 2. Colle's fracture- definition, classification, management
 3. Tuberculosis of Spine – Pathogenesis, Classification and Management

Short Answers- 3 marks each Marks)

(5X3=15

6. Thomas Splint
7. Saturday Night Palsy
8. Deformities in CTEV
9. Bennett's Fracture
10. Stages of Fracture Healing

Example 2

Total Marks: 50

Time: 1 hour 30 minutes

Long Essay- 10Marks Each (2X10=20Marks)

1. A new born was brought to the hospital with CTEV of both feet. Discuss
 1. Etiology
 2. Deformities
 3. Management
 4. **(3+3+4= 10Marks)**
2. A 11 year old boy was referred from a primary care center with osteosarcoma of femur. Discuss
 1. Clinical features
 2. Radiological and histological findings
 3. Management **(3+3+4= 10**

marks)Short Essay- 5 marks each (3X5=15

Marks)

1. Monteggia Fracture Dislocation
2. Claw hand
3. Nutritional Rickets

Short Answers- 3 marks each (5X3=15 Marks)

6. Dennis Brown splint
7. Skeletal Traction
8. List DMARD's

9. Ant
eri
or
Dra

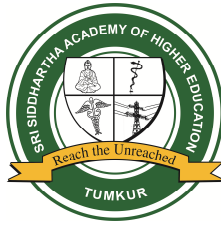
- 10. Mallet Finger

wer's Test

J. Recom mended Text Books

1. Natarajan's Textbook of Orthopaedics and Traumatology. 8th Edition
2. Maheshwari, Essential Orthopaedics. 6th Edition
3. Crawford Adams, Outline of Orthopaedics – Fractures and dislocation. 14th Edition
4. Apley & Solomon's System Of Orthopaedics And Trauma. 10th edition
5. Das S, A Manual On Clinical Surgery. 14th Edition
6. McRae, Clinical Orthopaedic Examination. 6th Edition

Sri Siddhartha Academy of Higher Education, Tumkur



ORTHOPAEDICS

LOG BOOK

FOR

PHASE III MBBS

AS PER

Competency-Based Medical Education Curriculum

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institution
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ORTHOPAEDICS Logbook

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Contact Number:

Email Id:

Date of Admission to MBBS Course:

Date of Beginning of the Current Phase:

Reg. No. (College ID):

Reg. No. (University ID):

INDEX

| SI NO. | CONTENT | PAGE NUMBER |
|-----------|---|---|
| 1 | BONAFIDE CERTIFICATE | 1 |
| 2 | PREFACE | 2 |
| 3 | GENERAL INSTRUCTIONS | 3 |
| 4 | SUMMARY OF ATTENDANCE | 4 |
| 5 | SUMMARY OF INTERNAL ASSESSMENT (IA) | 5 |
| 6 | SECTION - 1 CBME CURRICULUM IN ORTHOPAEDICS 1A. COMPETENCIES IN KNOWLEDGE DOMAIN 1B. COMPETENCIES IN SKILL DOMAIN | 6 7 |
| 7 | SECTION - 2 AETCOM MODULES | 8 |
| 8 | SECTION - 3 FORMATIVE ASSESSMENTS 3A. SUMMARY OF FORMATIVE ASSESSMENT 3B. Rubric for Assessing Professionalism 3C. Evaluation and feedback on Self-Directed Learning (SDL) | 12 13 14 |
| 9 | SECTION – 4 CLINICAL POSTINGS – LEARNER DOCTOR METHOD Clinical Posting 1 Clinical Posting 2 Clinical Posting 3 | 15 19 23 |
| 10 | SECTION - 5 ADDITIONAL ACTIVITIES 5.1 CO-CURRICULAR ACTIVITIES 5.2 EXTRACURRICULAR ACTIVITIES 5.3 ACHIEVEMENTS AND AWARDS | 27 |
| 11 | SUMMARY PAGE | 28 |

BONAFIDE CERTIFICATE

KEMPEOWDA INSTITUTE OF MEDICAL SCIENCES

This is to certify that the candidate

Reg No. has satisfactorily completed all requirements mentioned in this Logbook for Phase III MBBS in ORTHOPAEDICS including related AETCOM modules as per the Competency-Based Undergraduate Medical Education Curriculum, Graduate Medical Regulation 2019 during the period fromto

He/ She is eligible to appear for the Summative (University) Assessment.

Faculty Mentor:

Head of Department:

Name:

Name:

Signature:

Signature:

Place:

Date:

PREFACE

This logbook is designed to follow and record your academic journey through the Orthopaedics course. The knowledge, skills and desirable attitudes you acquire in order to function as a primary care physician of first contact will be documented and certified in this logbook.

Section 1 contains the **CBME competencies in Orthopaedics**. It includes the competencies that would be covered during the course.

Section 2 records your participation in **Attitude, Ethics and Communication (AETCOM)** modules related to Orthopaedics.

Section 3 consists of the **Scheme and Summary of Formative Assessments** in Orthopaedics, including the Internal Assessments.

Section 4 documents the **Clinical Postings – Learner Doctor Method**.

Section 5 documents **Additional-Curricular Activities** (Seminars, Conference, Workshops Attended, Scientific Project Presentations, Outreach Activities, etc.) and **Extracurricular Activities**.

We hope that this logbook serves as a guide and facilitates your progress through the year.

GENERAL INSTRUCTIONS

1. This logbook is a record of the Academic/Co-curricular activities in Orthopaedics of the designated student.
2. The student is responsible for getting the entries in the Logbook verified by the Faculty in-charge regularly.
3. Entries in the Logbook will reflect the activities performed by you in the Department of Orthopaedics during your course.
4. The student has to get this logbook verified by the Mentor and the Head of the Department before submitting the Application of the University Examination.
5. All signatures must be done with a date stamp.

SUMMARY OF ATTENDANCE

| <i>Block/Phase</i> | <i>Percentage of Classes Attended</i> | | <i>Eligible for University Examination (Yes / No)</i> | <i>Signature of Student with Date</i> | <i>Signature of Teacher with Date</i> |
|---|---|------------------|---|---|---|
| | <i>Theory</i> | <i>Practical</i> | | | |
| First Block | NA | | | | |
| Second Block | | | | | |
| Third Block | | | | | |
| Attendance at the end of MBBS Phase III | | | | | |

SUMMARY OF INTERNAL ASSESSMENT (IA)

8

| <i>Sl. No.</i> | <i>Internal Assessment</i> | <i>Date of Assessment</i> | <i>Total Marks</i> | | <i>Marks Scored</i> | | <i>Signature of Student with Date</i> | <i>Signature of Teacher with Date</i> |
|----------------|----------------------------|---------------------------|--------------------|------------------|---------------------|------------------|---------------------------------------|---------------------------------------|
| | | | <i>Theory</i> | <i>Practical</i> | <i>Theory</i> | <i>Practical</i> | | |
| 1 | First Phase II | | NA | | NA | | | |
| 2 | Second Phase III Part 1 | | | | | | | |
| 3 | Third Phase III Part 2 | | | | | | | |
| 4 | Remedial Phase III Part 2 | | | | | | | |

Note: A candidate who has not secured requisite aggregate in the Internal Assessment may be subjected to remedial assessment by the institution. If he/she successfully completes the same, he/she is eligible to appear for University Examinations. The Remedial Assessment shall be completed before submitting the Internal Assessment marks online to the University.

SECTION: 1

Competencies in Orthopaedics

Competency-Based Medical Education (CBME) Curriculum in Orthopaedics

Competencies in Orthopaedics:

There are **39** competencies in Orthopaedics that have been listed in the CBME curriculum by the MCI (*Refer Annexure I*). They can be categorized into knowledge, skills and affect domains as given below.

There are **29** competencies in the **Knowledge Domain**.

1.A Competencies in the Knowledge Domain

| Sl. No. | Topic | Competency |
|----------------|--|-----------------------------------|
| 1 | Skeletal Trauma, Poly Trauma | OR 1.1, 1.2, 1.3,1.4, 1.5 |
| 2 | Fractures | OR 2.1, 2.2, 2.4 to OR 2.14, 2.16 |
| 3 | Musculoskeletal Infection | OR 3.1 |
| 4 | Skeletal Tuberculosis | OR 4.1 |
| 5 | Rheumatoid Arthritis and Associated Inflammatory Disorders | OR 5.1 |
| 6 | Degenerative Disorders | OR 6.1 |
| 7 | Metabolic Bone Disorders | OR 7.1 |
| 8 | Polio Myelitis | OR 8.1 |
| 9 | Cerebral Palsy | OR 9.1 |
| 10 | Bone Tumors | OR 10.1 |
| 11 | Peripheral Nerve Injuries | OR 11.1 |
| 12 | Congenital Lesions | OR 12.1 |

Competencies in Skills: There are **10** competencies in this domain. These are as given below.

1.B Competencies in Skills

| Topics | Competency | Description |
|------------------------------|-------------------|---|
| Skeletal Trauma, Poly Trauma | OR 1.6 | Participate as a member in the team for Closed Reduction of Shoulder Dislocation / Hip Dislocation / Knee Dislocation |
| Fractures | OR 2.3 | Select, Prescribe and Communicate appropriate medication for relief of Joint Pain |
| | OR 2.15 | Plan and Interpret the Investigations to Diagnose Complications of Fractures like Malunion, Non-union, Infection, Compartment Syndrome |
| Musculo Skeletal Infection | OR 3.2 | Participate as a member in the team for Aspiration of Joints under supervision |
| | OR 3.3 | Participate as a member in the team for procedures like Drainage of Abscess, Sequestrectomy / Saucerisation and Arthrotomy |
| Procedural Skills | OR 13.1 | Participate in a team for procedures in patients and demonstrating the ability to perform on mannequins / simulated patients in the following – i. Above Elbow Plaster ii. Below Knee Plaster iii. Above Knee Plaster iv. Thomas Splint v. Splinting for Long Bone Fractures vi. Strapping for Shoulder and Clavicle Trauma |
| | OR 13.2 | Participate as a member in a team for Resuscitation of Poly Trauma Victim by doing all of the following – a. I.V. access Central - Peripheral b. Bladder Catheterisation c. Endotracheal Intubation d. Splintage |
| Counselling Skills | OR 14.1 | Demonstrate the ability to Counsel the patient regarding prognosis in patients with various Orthopaedic illnesses like – a. Fracture with Disabilities b. Fracture that requires prolong bed stay c. Bone Tumors d. Congenital Disabilities |
| | OR 14.2 | Demonstrate the ability to counsel patients to obtain consent for various Orthopaedic procedures like Limb Amputation, Permanent Fixations etc. |
| | OR 14.3 | Demonstrate the ability to convince the patient for referral to a higher centre in various Orthopaedic illnesses, based on the detection of warning signals and need for sophisticated management |

SECTION 2:

FORMAT OF AETCOM Modules Report

AETCOM Module Number:

Date:

Topic:

Competencies:

- 1.
- 2
- 3.

Reflections (100 words):

1. What did you learn from this AETCOM session based on the objectives?
2. What change did this session make in your learning?
3. How will you apply this knowledge in future?

Remarks by Facilitator:

Signature of Facilitator with Date:

AETCOM Module Number:

Date:

Topic:

Competencies:

- 1.
- 2
- 3.

Reflections (100 words):

1. What did you learn from this AETCOM session based on the objectives?
2. What change did this session make in your learning?
3. How will you apply this knowledge in future?

Remarks by Facilitator:

Signature of Facilitator with Date:

SECTION: 3

Formative Assessment 1

| | Maximum Marks | Marks Obtained | Feedback and Signature |
|---------------------------------------|----------------------|-----------------------|-------------------------------|
| Formative Assessment Practical | 10 | | |

Formative Assessment 2

| | Maximum Marks | Marks Obtained | Feedback and Signature |
|---------------------------------------|----------------------|-----------------------|-------------------------------|
| Formative Assessment Theory | 25 | | |
| Formative Assessment Practical | 20 | | |

Formative Assessment 3

| | Maximum Marks | Marks Obtained | Feedback and Signature |
|---------------------------------------|----------------------|-----------------------|-------------------------------|
| Formative Assessment Theory | 25 | | |
| Formative Assessment Practical | 20 | | |

Rubric for Assessing Professionalism

| <i>Phase</i> | <i>Areas assessed</i> | | | | | <i>Signature of Student</i> | <i>Signature of Teacher</i> |
|--------------------------------------|-------------------------------------|---|---|---|-------------------------|-----------------------------|-----------------------------|
| | <i>Regular for Classes (5marks)</i> | <i>Regular in Completing Assignments (5marks)</i> | <i>Behaviour in Class and Discipline (5marks)</i> | <i>Dress Code and Presentation (5marks)</i> | <i>Total (20 marks)</i> | | |
| At the end of 1 st IA | | | | | | | |
| At the end of 2nd IA | | | | | | | |
| At the end of 3rd IA | | | | | | | |
| Average score at the end of the year | | | | | | | |

Note: Parameters will be assessed at the Departmental level to consider eligibility (Minimum of 50% at the end of the year) of the candidate to appear for the university examination. Not considered for internal assessment marks.

Evaluation and Feedback on Self-Directed Learning (SDL)- 10 hours

| Sl. No. | Date | Topic of SDL | Feedback | Signature of Faculty/Mentor |
|---------|------|--------------|----------|-----------------------------|
|---------|------|--------------|----------|-----------------------------|

| |
|--|
| Posting 1: |
| Duration 2 weeks |
| Date of Posting: From: To: |
| Unit: |

| | | | | |
|-----------|--|--|--|--|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

Section 4: Clinical Postings – Learner Doctor Method

List of Clinical Cases Presented/Attended in Posting 1.

| | Diagnosis | Presented/Attended | Signature |
|-----------|------------------|---------------------------|------------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

Learner Doctor Method:
Posting 1:

One patient will be allotted to the student at the beginning of the posting. The patient is assessed at admission and followed up. The student will interact with the patient and the treating team to make daily notes of the following aspects of patient's progress in hospital.

History taking, physical examination, assessment of change in clinical status, communication and patient education.

A brief summary is to be written at the end of the patient's stay in hospital.

Learner Doctor Method:

Reflection on the Learner Doctor Method of Learning:

What did you learn from this Learning Method?

What change did this Learning Method make?

How will you apply this knowledge in future?

Signature of the Faculty:

Date:

| |
|--|
| Posting 2: |
| Duration 4 weeks |
| Date of Posting: From: To: |
| Unit: |

List of Clinical Cases Presented/Attended in Posting 2:

| | Diagnosis | Presented/Attended | Signature |
|---|-----------|--------------------|-----------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |

| | | | |
|-----------|--|--|--|
| 9 | | | |
| 10 | | | |

Learner Doctor Method:**Posting 2:**

One patient will be allotted to the student at the beginning of the posting. The patient is assessed at admission and followed up. The student will interact with the patient and the treating team to make daily notes of the following aspects of patient's progress in hospital.

History taking, physical examination, assessment of change in clinical status, communication and patient education.

A brief summary is to be written at the end of the patient's stay in hospital.

Learner Doctor Method:

Reflection on the Learner Doctor Method of Learning:

What did you learn from this Learning Method?

What change did this Learning Method make?

How will you apply this knowledge in future?

Signature of the Faculty:

Date:

| |
|--|
| Posting 3: |
| Duration 2 weeks |
| Date of Posting: From: To: |
| Unit: |

List of Clinical Cases Presented/Attended in Posting 3:

| | Diagnosis | Presented/Attended | Signature |
|---|-----------|--------------------|-----------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |

| | | | |
|-----------|--|--|--|
| 9 | | | |
| 10 | | | |

Learner Doctor Method:**Posting 3:**

One patient will be allotted to the student at the beginning of the posting. The patient is assessed at admission and followed up. The student will interact with the patient and the treating team to make daily notes of the following aspects of patient's progress in hospital.

History taking, physical examination, assessment of change in clinical status, communication and patient education.

A brief summary is to be written at the end of the patient's stay in hospital.

Learner Doctor Method:

Reflection on the Learner Doctor Method of Learning:

What did you learn from this Learning Method?

What change did this Learning Method make?

How will you apply this knowledge in future?

Signature of the Faculty:

Date:

Section 5: Additional Curricular and Extracurricular Activities

5.1 Additional Curricular Activities

(Seminar, Conferences, Outreach Activities, Workshops etc.)

| Sl. No. | Date | Particulars | Signature of the Faculty |
|----------------|-------------|--------------------|---------------------------------|
| | | | |
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5.2 Extracurricular Activities

| Sl. No. | Date | Particulars | Signature of the Faculty |
|----------------|-------------|--------------------|---------------------------------|
| | | | |
| | | | |
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| | | | |
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5.3 Achievements/Awards

| Sl. No. | Date | Particulars | Signature of the Faculty |
|----------------|-------------|--------------------|---------------------------------|
| | | | |
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FINAL SUMMARY

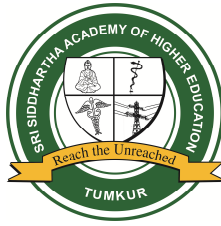
| Sl. No. | Description | Dates | | Attendance in Percentage | Status* | Signature of the Teacher with Date |
|---------|---------------------------------|-------|----|--------------------------------|---------|--|
| | | From | To | | | |
| 1 | AETCOM Modules | | | | | |
| 2 | Internal Assessment Marks | | | | | |

Signature of Head of Department

Date:

* Status: Complete/Incomplete: For Skills and AETCOM modules
Eligible/Ineligible: For Internal Marks

Sri Siddhartha Academy of Higher Education, Tumkur



Obstetrics and Gynecology Curriculum

as per

Competency Based Curriculum

SSAHE Obstetrics and Gynaecology Curriculum as per the new Competency Based Medical Education

PREAMBLE

The NMC envisages that the Indian Medical Graduate, should function as the Physician of first contact in the community, to provide holistic health care to the evolving needs of the nation and the world. To fulfil this the IMG should be able to perform the following roles: a clinician, a communicator, a lifelong learner, a professional and a team leader.

Competency-based medical education (CBME), which most of us are now aware about, is an outcomes-based training model that has become the international standard of medical education. This newly implemented curriculum is being rolled out as detailed by incorporating key principles of CBME and developing competencies for each speciality.

One of the key healthcare indicators of a country is maternal health. Reproductive health is also gaining prominence in the modern health context. The advances in obstetrics include a steady governmental push towards institutionalization of maternal care and a growing body of knowledge regarding prediction and prevention of problems, over and above the existing knowledge.

In line with this, the obstetrics and gynaecology undergraduate curriculum provides the IMG the appropriate knowledge, mandatory skills and optimal attitudes to be able to care for pregnant women and for women with reproductive tract issues and be able to identify high risk conditions and refer to specialists as appropriate.

The GMER 2019 states the following to be the competencies to be achieved by the IMG
Obstetrics and Gynaecology

(a) **Competencies in Obstetrics:** The student must demonstrate ability to:

1. Provide peri-conceptional counselling and antenatal care,
2. Identify high-risk pregnancies and refer appropriately,
3. Conduct normal deliveries, using safe delivery practices in the primary and secondary care settings,
4. Prescribe drugs safely and appropriately in pregnancy and lactation,
5. Diagnose complications of labour, institute primary care and refer in a timely manner,
6. Perform early neonatal resuscitation,
7. Provide postnatal care, including education in breast-feeding,
8. Counsel and support couples in the correct choice of contraception
9. Interpret test results of laboratory and radiological investigations as they apply to the care of the obstetric patient,
10. Apply medico-legal principles as they apply to tubectomy, Medical Termination of Pregnancy (MTP), Pre-conception and Prenatal Diagnostic Techniques (PC PNDT Act) and other related Acts.

Competencies in Gynaecology: The student must demonstrate ability to:

1. Elicit a gynaecologic history, perform appropriate physical and pelvic examinations and PAP smear in the primary care setting,

2. Recognize, diagnose and manage common reproductive tract infections in the primary care setting,

3. Recognize and diagnose common genital cancers and refer them appropriately.

(b) **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to provide comprehensive care for women in their reproductive years and beyond, based on a sound knowledge of structure, functions and disease and their clinical, social, emotional, psychological correlates in the context of national health priorities.

To achieve these, NMC has given a detailed list of OBGYN competencies in the **3rd Volume (Competency based Undergraduate Curriculum in Surgery and Allied subjects)** with competencies Numbered OG1.1 and so forth) required to be gained by the IMG.

Based on the competencies mentioned in the above said document, following items have been developed and spelt out in a tabular format

- Specific learning objectives (SLO's) to achieve each competency
- Suggested Teaching-Learning methods
- Preferred assessment methods (both formative and summative)

This is only a guideline and teachers are encouraged to improvise and develop more detailed SLOs. The T-L methods can be modified based on local resources.

Also, a detailed **blueprint** showing the weightage and the assessment for particular topics. (Few topics have been grouped together to give the weightage). This blueprint is an attempt at ensuring concordance between the SLOs', TL methods and the assessment.

A **question paper layout (theory)** has also been added to ensure that there is consistency among different paper setters.

Also, a suggested **assessment format (practical)** has also been given.

List of all Obstetrics and Gynaecology Competencies with their specific learning objectives, with suggested teaching-learning and assessment methods

| | Competencies | Specific learning objectives | Teaching learning methods with hours | When T-L will be done | Form of assessment |
|---|---|--|---|-----------------------|-------------------------|
| Topic: Demographic and Vital Statistics Number of competencies: (03) Number of procedures that require | | | | | |
| OG1.1 | Define and discuss birth rate, maternal mortality and morbidity | Definition of birth rate Definition of maternal mortality What is maternal mortality ratio and rate, Incidence, Causes of maternal mortality Factors affecting maternal mortality – 3 delays Interventions to prevent maternal death Definition of maternal morbidity Explain - acute, chronic, direct, indirect, non-obstetric maternal morbidity | Lecture 1hr Integration with community health | 5 th term | MCQ's at end of lecture |

| | | | | | |
|---|---|--|--|----------------------|--------------------|
| | | | | | |
| OG1.2 | "Define and discuss perinatal mortality and morbidity including perinatal and neonatal mortality and mortality audit | Definition of perinatal mortality Incidence Factors affecting perinatal mortality Causes of perinatal mortality Strategies to reduce perinatal mortality Definition of perinatal morbidity How to audit neonatal morbidity | Lectures 1hr Integration with community health | 5 th term | MCQ's at end lectu |
| OG1.3 | Define and discuss still birth and abortion | Definition of stillborn Incidence, aetiology, pathology, symptoms, signs, investigations- still born infant Examination of stillborn infant Complications of IUD Management Definition of abortion Types of abortion Aetiology, Pathophysiology, clinical features, investigations, management, differential diagnosis | Lectures 2hr Tutorials /SGD | 5 th Term | MCQ's at end lectu |
| Topic: Anatomy of the female reproductive tract (Basic anatomy and embryology) Number of competences : (NIL) Number of procedures that require certification : (NIL) Y | | | | | |
| OG2.1 | Describe and discuss the development and anatomy of the female reproductive tract, relationship to other pelvic organs, applied anatomy as related to | Development of external genital organs Development of internal genital organs Development of ovary, differentiation, descent Anatomy of external genitalia Anatomy of Internal genital organs- vagina, uterus, cervix, fallopian tubes, ovary Relationship to other pelvic organs Applied anatomy | Lecture 2hr Integration with Anatomy | 5th term | MCQ / Viv |

| | | | | | |
|---|---|---|---|-------------------------|---------------|
| | Obstetrics and Gynaecology. | | | | |
| OG2.2 | Define, classify and discuss the investigations and management of mullerian anomaly | classification of Mullerian anomaly, Investigation & management | Lecture 1hr | 5 th term | MCQ / Viva |
| Topic: Physiology of conception Number of competencies: (01) Number of procedures that require competency: (01) | | | | | |
| OG3.1 | Describe the physiology of ovulation, menstruation, fertilization, implantation and gametogenesis. | Gametogenesis – spermatogenesis, oogenesis Formation and maturation of ovarian follicles, structure of ovum Ovulation- mechanism, causes, timing, effects Fertilization- process, post fertilization events, implantation | Lecture 2hrs | 5 th term | MCQ |
| Topic: Development of the fetus and the placenta Number of competencies: (01) Number of procedures that require competency: (01) | | | | | |
| OG4.1 | Describe and discuss the basic embryology of fetus, factors influencing fetal growth and development, anatomy and physiology of placenta, and teratogenesis | Embryology – formation of 3 germ layers, amnion and chorion, placenta Phases of conceptus development Timing of appearance of different organ systems Placenta- development, gross anatomy, structure, placental circulation, functions of placenta Teratogenesis, teratogens | Lecture 1hr | 6 th term | MCQ |
| Topic: Preconception counselling Number of competencies:(02) Number of procedures that require competency: (02) | | | | | |
| OG5.1 | Describe, discuss and identify pre-existing medical disorders and discuss their management; discuss evidence-based intrapartum care | Pre-existing medical disorders- anaemia, cardiac disease, DM, chronic hypertension, bronchial asthma, seizure disorders, thyroid disorders, chronic kidney disease, Antenatal care and preconception counselling Objectives, history and examination, assessment of period of gestation, investigations and nutrition. | Lectures 1hr Tutorials 1hr Bedside clinics, Small group discussion | 6 th term | MCQ |
| OG5.2 | Determine maternal high | screening for high risk factors, | Lectures 1hr | 6 th term | MCQ |

| | | | | | |
|---|---|---|---|----------------------|------|
| | risk factors and verify immunization status | <p>elderly primigravida: complications during pregnancy and labour, maternal and foetal mortality, management</p> <p>bad obstetric history</p> <p>obesity: physiological changes, management</p> <p>grand multipara: complications, mortality, management</p> <p>maternal immunization status for</p> <div style="border: 1px solid black; padding: 5px;"> <ul style="list-style-type: none"> - Tetanus - hepatitis B - whooping cough - influenza </div> <p>vaccines contraindicated in pregnancy</p> <p>immunization in special circumstances: rabies, yellow fever, hepatitis A,</p> | Bedside clinic, small group discussion | | |
| Topic: Diagnosis of pregnancy Number of competencies:(01) Number of procedures that require certification: | | | | | |
| OG6.1 | Describe, discuss and demonstrate the clinical features of pregnancy, derive and discuss its differential diagnosis, elaborate the principles underlying and interpret pregnancy tests. | <p>Discuss the clinical features of early pregnancy</p> <p>Tests to confirm pregnancy - immunological test, Urine Pregnancy test.</p> <p>Discuss the role of ultrasound in diagnosing Pregnancy</p> | <p>Lectures 1hr</p> <p>Bedside clinic, small group discussion</p> <p>OPDs</p> | 6 th term | MCQs |
| Topic: Maternal Changes in pregnancy Number of competencies: (01) Number of procedures that require certification: | | | | | |
| OG7.1 | Describe and discuss the changes in the genital tract, cardiovascular system, respiratory, haematology, renal and gastrointestinal system in pregnancy | <p>Haematology-blood volume, plasma volume, RBC & haemoglobin, blood coagulation factors</p> <p>CVS-anatomical changes, cardiac output, BP, venous pressure</p> <p>RS-respiratory rate, tidal volume, total lung capacity</p> <p>Renal changes in kidney, ureter, bladder</p> <p>Gastrointestinal changes</p> <p>Genital tract-changes in body of uterus, isthmus, cervix</p> | <p>Lectures 1hr</p> <p>Bedside clinic, small group discussion</p> | 6 th term | MCQs |
| Topic: Antenatal Care Number of competencies: (08) Number of procedures that require certification: | | | | | |
| OG8.1 | Enumerate, describe and | <p>Procedure at 1st visit</p> <p>Procedure at subsequent visits</p> | Bedside clinic, small | 6 th term | MCQs |

| | | | | | | |
|---|---|--|---|---|--|------|
| | discuss the objectives of antenatal care, assessment of period of gestation; screening for high-risk factors. | Routine Antenatal screening Antenatal hygiene Immunization Pre conceptional counselling & care Period of gestation based on pts statement, previous records, objective signs & investigations | group discussion OPDs | | | |
| OG8.2 | Elicit document and present an obstetric history including menstrual history, last menstrual period, previous obstetric history, comorbid conditions, past medical history and surgical history | Menstrual history in detail Negele’s rule Importance of Past history Importance of Surgical history | Bedside clinic, small group discussion OPDs | 6 th term | MCQs | |
| OG8.3 | Describe, demonstrate, document and perform an obstetrical examination including a general and abdominal examination (and clinical monitoring of maternal and fetal well-being;) | <table border="1"><tr><td>Antepartum fetal surveillance - clinical - biochemical - biophysical</td></tr></table> Evaluation of foetal wellbeing Maternal weight gain Assessment of height of fundus General physical examination Per abdomen -inspection, palpation, auscultation Symphysio fundal height, abdominal girth | Antepartum fetal surveillance - clinical - biochemical - biophysical | Lectures 1hr Bedside clinic, small group discussion OPDs | 3 rd 4 th & 6 th term | MCQs |
| Antepartum fetal surveillance - clinical - biochemical - biophysical | | | | | | |
| OG8.4 | Describe and demonstrate clinical monitoring of maternal and fetal well-being | Non stress test Biophysical profile DFMC CTG Maternal condition assessment -vital parameters -investigations - Antenatal foetal surveillance | Lectures 1hr Tutorials 1hr Bedside clinic, small group discussion | 6 th term | MCQs | |

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|--|---|---|--|--|-----------|
| OG8.5 | Describe and demonstrate pelvic assessment in a model | Bones of pelvis, anatomical measurements of diameters assessment at brim At midcavity At outlet Plane of least pelvic diameter | Bedside clinic, small group discussion, DOAP, Labour room posting | 3 rd 4 th 6 th 8 th & 9 th term s | S Asse |
| OG8.6 | Assess and counsel a patient in a simulated environment regarding appropriate nutrition in pregnancy | BMI calorie requirement in pregnancy & lactation Protein requirement Folic acid requirement Vit b12 requirement Iron requirement Supplementary nutritional therapy Develop checklist for role play for nutrition in pregnancy | Lectures 1hr Bedside clinic, small group discussion, Role play OPD | 3 rd term | MCQ s |
| OG8.7 | Enumerate the indications for and types of vaccination in pregnancy | Contraindicated vaccines in pregnancy Safe vaccines in pregnancy Tetanus toxoid-dose, route Current guideline for antenatal vaccination including T-dap Timing of vaccination | Lectures 1hr Bedside clinic, small group discussion OPD | 3 rd term | MCQ s |
| OG8.8 | Enumerate the indications and describe the investigations including the use of ultrasound in the initial assessment and monitoring in pregnancy | Indication of 1st trimester USG Indication of 2nd trimester USG Indication of 3rd trimester USG USG markers of fetal anomalies Gestational age assessment on USG Doppler studies Routine antenatal blood and urine investigation Screening test for aneuploidy, preeclampsia and GDM Describe trimester wise blood test and ultrasound assessment | Lectures 1hr Bedside clinic, small group discussion | 3 rd term | MCQ s |
| Topic: Complications in early pregnancy Number of competencies: (05) Number of procedures that re | | | | | |
| OG9.1 | Classify, define and discuss the aetiology and management of abortions including threatened, incomplete, inevitable, missed and septic | Definition Etiology Classification Definition, clinical features, investigations and management of threatened, inevitable, missed, complete and incomplete abortion Septic abortion definition Clinical Features Management Prevention | Lectures 1hr Tutorials 1hr Bedside clinic, small group discussion OPD | 6 th & 7 th term | MCQ s |

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|-------|--|--|--|--|------|
| OG9.2 | Describe the steps and observe/ assist in the performance of an MTP evacuation | Enumerate the steps of suction evacuation Enumerate steps of dilatation and evacuation Enumerate steps of menstrual regulation | Tutorials 1hr Bedside clinic, small group discussion opd / ward/ minor OT | 6 th & 7 th term | MCQs |
| OG9.3 | Discuss the aetiology, clinical features, differential diagnosis of acute abdomen in early pregnancy (with a focus on ectopic pregnancy) and enumerate the principles of medical and surgical management | Differential diagnosis of acute abdomen in early pregnancy- obstetric, gynaecological, medical and surgical causes Etiology of ectopic pregnancy Classification of ectopic pregnancy Clinical features of acute and chronic ectopic Diagnosis Management options Medical management Surgical management | Lectures 1hr Tutorials 1hr Bedside clinic, small group discussion OPD | 6 th & 7 th term | MCQs |
| OG9.4 | Discuss the clinical features, laboratory investigations, ultrasonography, differential diagnosis, principles of management and follow up of gestational trophoblastic neoplasms | Definition of Molar pregnancy Classification Etiopathology Clinical features Investigations- blood and ultrasonography Differential diagnosis Complications- immediate and late Management- medical and surgical Follow up- history, examination, investigations, and contraceptive advice. | Lectures 1hr Tutorials 1hr Bedside clinic, small group discussion OPD | 6 th & 7 th term | MCQs |
| OG9.5 | Describe the etiopathology, impact on maternal and fetal health and principles of management of hyperemesis gravidarum | Definition of hyperemesis gravidarum Etiopathology Clinical features- symptoms and signs Investigations Complications to mother and foetus Management- hospitalization, fluids, drugs, diet, nutritional supplementation | Lectures 1hr Bedside clinic, small group discussion OPD | 6 th & 7 th term | MCQs |

| Topic: Antepartum haemorrhage Number of competencies: (02) Number of competencies that require certification: (02) | | | | | |
|--|---|--|--|--|------|
| OG10.1 | Define, classify and describe the aetiology, pathogenesis, clinical features, ultrasonography, differential diagnosis and management of antepartum haemorrhage in pregnancy | Classification and differential diagnosis Placenta previa definition Etiology and types Clinical features Complications Management- investigations, expectant vs definitive management Definition of abruption placenta Etiology and types Clinical features and grades Management | Lectures 2hr Tutorials 2hr Bedside clinic, small group discussion OPD | 6 th & 7 th term | MCQs |
| OG10.2 | Enumerate the indications and describe the appropriate use of blood and blood products, their complications and management. | Enumerate different types of blood components Characteristic features and storage Indications for transfusion Massive transfusion protocol Complications and their management Discuss importance of consent form | Lectures 1hr Bedside clinic, small group discussion | 8 th term | MCQs |
| Topic: Multiple pregnancies Number of competencies: (01) Number of procedures that require certification: (01) | | | | | |
| OG11.1 | Describe the etiopathology, clinical features; diagnosis and investigations, complications, principles of management of multiple pregnancies | Etiopathology and types Diagnosis- History, symptoms, general and abdominal examination Investigations Maternal changes Complications to mother and fetus Management- antenatal, 1st and 2nd stage of labour, including delivery of 2nd twin, third stage, puerperium | Lectures 1hr Tutorials 1hr Bedside clinic, small group discussion OPD | 6 th & 7 th term | MCQs |
| Topic: Medical Disorders in pregnancy Number of competencies: (08) Number of procedures that require certification: (08) | | | | | |
| OG12.1 | Define, classify and describe the etiology and pathophysiology, early detection, investigations; principles of management of hypertensive disorders of pregnancy | Classification of hypertensive disorders, definition of pre-eclampsia and eclampsia Diagnostic criteria Etiopathogenesis Clinical features of pre-eclampsia and eclampsia- symptoms and signs Specific investigations Maternal and foetal complications antenatal management- supportive, fluid management, antibiotics, anti-hypertensives, anti-convulsant | Lectures 3hr Tutorials 2hr Bedside clinic, small group discussion OPD | 8 th term | MCQs |

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|--------|--|--|--|--|------|
| | pregnancy and eclampsia, complications of eclampsia. | Monitoring and surveillance Management during labour | | | |
| 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 | Definition Classification Aetiology of nutritional anaemia Clinical features of nutritional anaemia Physiological changes and effects of anaemia on pregnancy and foetus Investigations of nutritional anaemia Complications during pregnancy, labour and puerperium Prevention of nutritional anaemia Management of nutritional anaemia- diet, oral and parenteral iron, blood transfusion Discuss classification, aetiology, clinical features, investigations, complications and management of non-nutritional anaemia | Lectures 1hr Tutorials 1hr Bedside clinic, small group discussion OPD | 6 th & 7 th term | MCQs |
| 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 | definition of gestational diabetes mellitus classification of diabetes mellitus in pregnancy Enumerate etiological factors Discuss pathophysiology of diabetes mellitus in pregnancy investigations for diabetes mellitus in pregnancy Screening test for gestational diabetes mellitus Describe the effects of diabetes on pregnancy complications of diabetes mellitus in pregnancy Discuss the management of diabetes in antenatal period, in labour, postnatal | Lectures 1hr Tutorials 1hr Bedside clinic, small group discussion | 6 th & 7 th term | MCQs |
| OG12.4 | Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management | classification of heart disease in pregnancy Discuss etiology Describe pathophysiology of heart disease in pregnancy Discuss clinical features of heart disease in pregnancy Describe antenatal investigations diagnosis Discuss the effects of heart disease on pregnancy Discuss the effects of pregnancy on heart disease management during pregnancy, during labour, in postnatal | Lectures 1hr Tutorials 1hr Bedside clinic, small group discussion OPD | 6 th & 7 th term | MCQs |

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|--------|--|--|--|--|------|
| | during pregnancy and labor, and complications of heart diseases in pregnancy | Complications, preconceptional counselling | | | |
| OG12.5 | Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of urinary tract infections in pregnancy | aetiology of UTI in pregnancy pathophysiology in pregnancy symptoms signs investigations complications management Asymptomatic bacteriuria | Lectures 1hr Bedside clinic, small group discussion OPD | 7 th term | MCQs |
| OG12.6 | Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of liver disease in pregnancy | Discuss classification of liver disease in pregnancy aetiology pathophysiology Describe clinical features of liver disease in pregnancy List the investigations of liver disease in pregnancy Discuss the differential diagnosis of liver disease in pregnancy List the maternal complications management of liver disease in pregnancy | Lectures 1hr Bedside clinic, small group discussion OPD | 7 th term | MCQs |
| OG12.7 | Describe and discuss screening, risk factors, management of mother and newborn with HIV | introduction of HIV and incidence routes of transmission immunopathogenesis clinical presentation diagnosis management prenatal care, antenatal care, intrapartum care, postnatal care Pre-test and post-test counselling PPTCT program TORCH infection in pregnancy | Lectures 1hr Bedside clinic, small group discussion | 7 th term | MCQs |
| OG12.8 | Describe the mechanism, prophylaxis, | Definition of Rh- isoimmunisation Mechanism of antibody formation in the mother Prevention of Rh-isoimmunisation | Lectures 1hr | 6 th & 7 th term | MCQs |

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|---|--|---|--|--|------|
| | fetal complications, diagnosis and management of isoimmunization in pregnancy | Haemolytic disease of the fetus and newborn Antenatal investigations protocol of Rh-negative mother Plan of delivery in unimmunised and immunised mother Prognosis of Rh-isoimmunisation | Bedside clinic, small group discussion OPD | | |
| Topic: Labour- Number of competencies: (05) Number of procedures that require certification : (01) | | | | | |
| OG13.1 | Enumerate and discuss the physiology of normal labor, mechanism of labor in occipito-anterior presentation; monitoring of labor including partogram; conduct of labor, pain relief; principles of induction and acceleration of labor; management of third stage of labor. | physiology of normal labour mechanism of normal labour monitoring of labour by partogram steps of delivery labour analgesia induction of labour by natural, medical, surgical, combined acceleration of labour management of 3rd stage of labour | Lectures 3hr Tutorials 1hr Bedside clinic, small group discussion, evening labour room posting | 3 rd & 4 th term | MCQs |
| OG13.2 | Define, describe the causes, pathophysiology, diagnosis, investigations and management of preterm labor, PROM and postdated pregnancy | definition for preterm labour, PROM & post-dated pregnancy etiology pathophysiology symptoms signs investigations diagnosis complications management | Lectures 2hr Tutorials 1hr Bedside clinic, small group discussion | 6 th & 7 th term | MCQs |
| OG13.3 | Observe/ assist in the performance of an artificial rupture of membranes | indications for ARM Enumerate the technique of procedure limitations contraindications complications | Bedside clinic, small group discussion, evening labour room posting | 8 th & 9 th term | |

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| OG13.4 | Demonstrate the stages of normal labor in a simulated environment / mannequin (and counsel on methods of safe abortion). | physiology and mechanism and events of stage 1,2 and 3 of normal labour definition of abortion types of abortion indications of induced abortion medical and surgical methods MTP act complications of abortion | Bedside clinic, small group discussion, skill lab DOAP | 8 th term | |
| OG13.5 | Observe and assist the conduct of a normal vaginal delivery | Monitoring of mother and foetus in second stage of labour General management- sterile precautions Position for delivery procedures Oxytocics and analgesia in labour Management of third stage of labour Examination of placenta Fourth stage of labour | Bedside clinic, Evening labour room posting DOAP | 8 th & 9 th term | |
| Topic: Abnormal Lie and Presentation; Maternal Pelvis Number of competencies: (04) Number of procs (NIL) | | | | | |
| OG14.1 | Enumerate and discuss the diameters of maternal pelvis and types | Bones of female pelvis Diameters and planes of obstetric pelvis Clinical significance of each type of pelvis False and true pelvis Caldwell and Moley classification of pelvis. | Bedside clinic, DOAP | 6 th 8 th & 9 th term | MCQs |
| OG14.2 | Discuss the mechanism of normal labor, Define and describe obstructed labor, its clinical features; prevention; and management | normal labour- definition Describe cardinal movements involved in labour Explain synclitism/asynclitism Definition of obstructed labour causes Clinical features diagnosis Prevention Management Complications of obstructed labour | Lectures 1hr Bedside clinic, small group discussion, Evening labour room posting | 8 th term | MCQs |
| OG14.3 | Describe and discuss rupture uterus, causes, diagnosis and management. | incidence of Rupture Uterus causes pathology Clinical features diagnosis complications Management- general and definitive | Lectures 1hr Bedside clinic, small group discussion, Evening labour room posting | 8 th term | MCQs |
| OG14.4 | Describe and discuss the | Definition Classification of abnormal uterine action | Lectures 1hr | 8 th term | MCQs |

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| | classification; diagnosis; management of abnormal labor | Describe pathological retraction ring and management Management of abnormal labour Dystocia dystrophia syndrome | Bedside clinic, small group discussion | | |
| OG14. 5 | Describe and discuss causes, dagnosis and management of breech presentation, occipito posterior, transverse lie, face presentation | Breech – Etiological features Clinical Examination Management of Antenatal intrapartum Complications - Maternal Foetal OP- Aetiology Features Clinical Examination Mechanism of labour in OP, Course of labour Definition of deep transverse arrest and its management Define & discuss the management of transverse | Lectures 1hr Tutorials 1hr Bedside clinic, small group discussion , evening labour room posting | 8 th term | MCQ s |
| Topic: Operative obstetrics Number of competencies: (02) Number of procedures that require certification: | | | | | |
| OG15. 1 | Enumerate and describe the indications and steps of common obstetric procedures, technique and complications: Episiotomy, vacuum extraction; low forceps; Caesarean section, assisted breech delivery; external cephalic version; cervical cerclage | Episiotomy- definition, types, timing of episiotomy, structures incised, repair, complications vacuum extraction- design, indications, contraindications, procedure, complications low forceps- description of forceps, indications, contraindications, procedure, complications caesarean section- types, indications, procedure, complications. What is caesarean hysterectomy assisted breech delivery- principles, steps, indications, delivery of after coming head, complications external cephalic version- prerequisites, indications, contraindications, procedure, complications cervical cerclage – types, indications, procedure, complications | Tutorials 2hrs Bedside clinic, Small group discussion, observatio n in OT, evening labour room posting | 8 th & 9 th term | MCQ s Skill Asses t |
| OG15. 2 | Observe and assist in the performance of an episiotomy and demonstrate the correct suturing technique of an episiotomy in a | episiotomy- suturing technique breech delivery | Bedside clinic, Small group discussion , observatio n in OT, DOAP Skill lab | | MCQ s |

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| | simulated environment. Observe/Assist in operative obstetrics cases – including - CS, Forceps, vacuum extraction, and breech delivery | | | | |
| Topic: Complications of the third stage of labor- Number of competencies: (03) Number of procedures | | | | | |
| OG16.1 | Enumerate and discuss causes, prevention, diagnosis, management, of blood and blood products in appropriate use postpartum haemorrhage | Definition – primary and secondary PPH Aetiology incidence diagnosis Degree of shock in PPH Prevention Management- medical, appropriate use of blood and blood products Uterine compression sutures Step wise devascularisation | Lectures 1hr Tutorials 1hr Bedside clinic, Small group discussion, evening labour room posting | 8 th term | MCQs |
| OG16.2 | Describe and discuss uterine inversion – causes, prevention, diagnosis and management. | uterine inversion- INCIDENCE TYPES degree aetiology Clinical features diagnosis Complications D/D ,prevention, prognosis management | Lectures 1hr Tutorials 1hr Bedside clinic, Small group discussion | 8 th term | MCQs |
| OG16.3 | Describe and discuss causes, clinical features, diagnosis, investigations; monitoring of fetal well-being, including ultrasound and fetal Doppler; principles of management; prevention and counselling in | intrauterine growth restriction – definition Pathophysiology of FGR TYPES OF FGR aetiology diagnosis Management- antepartum, intrapartum and neonatal | Lectures 1hr Tutorials 1hr Bedside clinic | 8 th term | MCQs |

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| | intrauterine growth retardation | | | | |
| OG16.4 | Describe and discuss macrosomia, causes, diagnosis, intra partum complications, management | Definition of Macrosomia Causes clinical & sonological findings to diagnose & management shoulder dystocia - Causes Intrapartum Management maternal & neonatal complications | Lectures 1hr Bedside clinic, evening labour room posting Skill lab | | MCQs |
| Topic: Lactation Number of competencies: (03) Number of procedures that require certification : (NIL) | | | | | |
| OG17.1 | Describe and discuss the physiology of lactation | Anatomy of breast Phases of lactation Prolactin reflex Milk let down reflex Lactation inhibition and suppression | | | MCQs |
| OG17.2 | Counsel in a simulated environment, care of the breast, importance and the technique of breast feeding | Care of breast Initiation of breast feeding Exclusive breast feeding Technique of breastfeeding-different position and attachment Frequency of breastfeeding Adequacy of breastfeeding Expression of breast milk | | | |
| OG17.3 | Describe and discuss the clinical features, diagnosis and management of mastitis and breast abscess | Clinical presentation in mastitis Diagnosis of mastitis Complication of mastitis Treatment and prevention of mastitis Breast abscess – definition, clinical presentation, diagnosis, investigation, treatment | | | MCQs |
| Topic: Care of the new born Number of competencies: (04) Number of procedures that require certification : (NIL) | | | | | |
| OG18.1 | Describe and discuss the assessment of maturity of the newborn, diagnosis of birth asphyxia, principles of resuscitation, common problems. | Examination of newborn Assessment of gestation age – by sole creases , breast nodule, scalp hair, ear lobe, testes and scrotum Birth asphyxia – definition, etiology, diagnosis, clinical features, management Equipments for resuscitation principles of resuscitation Common problem in resuscitation | Lectures 1hr Bedside clinic, Small group discussion DOAP, Evening labour room posting Skill Lab | 3 rd & 4 th term | MCQs |

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| OG18.2 | Demonstrate the steps of neonatal resuscitation in a simulated environment | New born resuscitation algorithm Initial steps Positive pressure ventilation Endotracheal intubation, chest compression medication | Bedside clinic, DOAP, Evening labour room posting Skill Lab | 6 th term | | | | | | | |
| OG18.3 | Describe and discuss the diagnosis of birth asphyxia | definition birth asphyxia etiopathogenesis Clinical features and diagnosis management | Lectures 1hr Bedside clinic, small group discussion | 8 th term | MCQs | | | | | | |
| OG18.4 | Describe the principles of resuscitation of the newborn and enumerate the common problems encountered | Principles of resuscitation Steps of resuscitation Resuscitation principle in baby who is apnoeic despite tactile stimulation Resuscitation when baby is apnoeic and HR less than 100 | Bedside clinic, Small group discussion | 8 th term | MCQs | | | | | | |
| Topic: Normal and abnormal puerperium. Number of competencies: (04) Number of procedures that n | | | | | | | | | | | |
| OG19.1 | Describe and discuss the physiology of puerperium, its complications, diagnosis and management; counselling for contraception, puerperal sterilization | definition of Purperium Physiological changes includes uterine changes Define lochia & types general physiological changes Puerperal sepsis – definition , causes, pathogenesis , clinical features, diagnosis, management Subinvolution , urinary problems Thromboembolic disorders – DVT, thrombophlebitis, pulmonary embolism Obstetric palsies , puerperal psychiatric disorders | Lectures 2hrs Tutorials 1hr Bedside clinic, Small group discussion | 6 th & 8 th term | MCQs | | | | | | |
| OG19.2 | Counsel in a simulated environment, contraception and puerperal sterilisation | Methods of contraception Puerperal sterilization - <table><tr><td>a. informed consent and pre-requisites</td></tr><tr><td>b. timing</td></tr><tr><td>c. methods</td></tr><tr><td>d. technique</td></tr><tr><td>e. steps</td></tr><tr><td>f. complication</td></tr></table> Develop a checklist for role paly including above mention SLO | a. informed consent and pre-requisites | b. timing | c. methods | d. technique | e. steps | f. complication | Tutorials 1hr Bedside clinic, DOAP, Role play | 8 th & 9 th term | |
| a. informed consent and pre-requisites | | | | | | | | | | | |
| b. timing | | | | | | | | | | | |
| c. methods | | | | | | | | | | | |
| d. technique | | | | | | | | | | | |
| e. steps | | | | | | | | | | | |
| f. complication | | | | | | | | | | | |

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| OG19.3 | Observe/ assist in the performance of tubal ligation | Pre –operative preparation Type of anaesthesia Types of incision Procedure Advantages Drawbacks | DOAP & Intra operative, skill lab | 8 th & 9 th term | |
| OG19.4 | Enumerate the indications for, describe the steps in and insert and remove an intrauterine device in a simulated environment | Indications for cu-t insertions –WHO eligibility criteria Timing of insertion Technique of insertion – no touch insertion | Skill lab & OPD | 8 th & 9 th term | MCQs |
| Topic: Medical termination of pregnancy Number of competencies: (03) Number of procedures that re | | | | | |
| OG20.1 | Enumerate the indications and describe and discuss the legal aspects, indications, methods for first and second trimester MTP; complications and management of complications of Medical Termination of Pregnancy | Induction of Abortion- Definition MEDICAL TERMINATION OF PREGNANCY Act Indications for termination Recommendations (new changes) First trimester (Upto 12 weeks) -Medical & Surgical Second Trimester (13-24 weeks) Medical & Surgical Complications of MTP- Immediate & Remote Management of Complications | Lectures 2hr Bedside clinic, Small group discussion | 3 rd term | MCQs |
| OG20.2 | In a simulated environment administer informed consent to a person wishing to undergo Medical Termination of Pregnancy | Introduces oneself and verifies the patients identity and age. Explains that if minor or lunatic then parents or legal guardian consent is required Calculates the gestational age Provides information regarding the options available or the need for opinion of two medical practitioners Provides information regarding the failure rates, immediate and remote complications of the chosen procedures Explains that only the patients written consent is required and not the husbands Explains that it is a confidential procedure and has to be reported to the DHS in the prescribed form | Tutorials 1hr DOAP, Role play | 8 th & 9 th term | |

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| | | Develop a checklist for role play including above mentioned SLO | | | |
| OG20.3 | Discuss Pre-conception and Pre Natal Diagnostic Techniques (PC& PNDT) Act 1994 & its amendments | Definition of the PC & PNDT act Prenatal diagnostic procedures under the act Prenatal diagnostic Tests covered by the act Qualified Personnel and Registration (of The place where USG is performed) Offences and penalties | Lectures 1hr Bedside clinic, Small group discussion | 9 th term | MCQs |
| Topic: Contraception Number of competencies: (02) Number of procedures that require certification : | | | | | |
| 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 Ocs, male contraception, emergency contraception and IUCD | Methods of contraception MEC criteria pearl Index Permanent – Male and Female contraceptive method Temporary Natural- Calendar, temperature, withdrawal, lactational (FAM) Barrier- Physical-male and female condoms, diaphragms ; Chemical - creams jelly and foam IUCD- types, mode of action, contraindications, complications, other uses Steroidal Contraception-oral, parenteral, devices COC- types, Mechanism of action, contraindications and non-contraceptive uses, follow up, Missed pill management Implants injectables and Emergency contraception Male contraception What is PPIUCD | Lectures 5hrs Tutorials 4hrs Bedside clinic, Small group discussion Skill lab 1 | 8 th & 9 th term | MCQs |
| OG21.2 | Describe & discuss PPIUCD programme | Mode of insertion of PPIUCD Benefits Drawbacks Government Family Planning programs | Lectures 1hr Bedside clinic, Small group discussion | 8 th & 9 th term | MCQs |
| Topic: Vaginal discharge Number of competencies: (02) Number of procedures that require certification : | | | | | |
| OG22.1 | Describe the clinical characteristics of physiological vaginal discharge | Characteristics of normal vaginal discharge Leucorrhea Physiological excess Cervical causes Vaginal causes Enumerate the causes of physiological vaginal discharge | Lectures 1hr Bedside clinic, Small group discussion, OPD | 6 th term | MCQs |
| OG22.2 | Describe and discuss the | Defence of the genital tract | Lectures 1hr | 6 th term | MCQs |

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| | etiology (with special emphasis on Candida, T. vaginalis, bacterial vaginosis), characteristics, clinical diagnosis, investigations, genital hygiene, management of common causes and the syndromic management | Candida- Clinical features, complications, diagnosis, treatment T. vaginalis- Clinical features, complications, diagnosis, treatment Bacterial Vaginosis- Clinical features, complications, diagnosis, treatment Gonorrhoea - Clinical features, complications, diagnosis, treatment Syphilis- Clinical features, complications, diagnosis, treatment Chlamydial infections- Clinical features, complications, diagnosis, treatment Chancroid, LGV, Granuloma Inguinale- cause, Clinical features, complications, diagnosis, treatment Herpes Genitalis- Clinical features, complications, diagnosis, treatment Syndromic Approach & kits available | Bedside clinic ,Small group discussion, OPD | | |
| Topic: Normal and abnormal puberty Number of competencies: (03) Number of procedures that require c | | | | | |
| OG23.1 | Describe and discuss the physiology of puberty, features of abnormal puberty, common problems and their management | Puberty Definition and Morphological Changes Endocrinology of Puberty Precocious Puberty Definition, types, etiopathogenesis, diagnosis, treatment, prognosis, Delayed Puberty- Definition, types, etiopathogenesis, diagnosis, treatment, prognosis Puberty Menorrhagia - etiopathogenesis, diagnosis treatment | Lectures 1hr Bedside clinic ,Small group discussion, OPD | 6 th & 7 th term | MCQs |
| OG23.2 | Enumerate the causes of delayed puberty. Describe the investigation and management of common causes | Hypergonadotrophic Hypogonadism- Ovarian Failure, gonadal dysgenesis Hypogonadotrophic hypogonadism-primary, kallmann syndrome, tumors Eugonadism- Anatomical ; AIS | Lectures 1hr | 6 th & 7 th term | MCQs |
| OG23.3 | Enumerate the causes of precocious puberty | GnRH dependent- constitutional, intracranial lesions, juvenile primary hypothyroidism; incomplete GnRH independent – Ovarian; adrenal; Liver; iatrogenic | Lectures 1hr | 6 th term | MCQs |
| Topic: Abnormal uterine bleeding Number of competencies: (01) Number of procedures that require c | | | | | |
| OG24.0 | Discuss common disorders associated with menstruation | Definition of dysmenorrhea clinical Features Types of dysmenorrhea & management of dysmenorrhea Pre menstrual syndrome | Lectures 1hr Bedside clinic ,Small | 6 th term | |

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| | like irregular cycle, HMB, intermenstrual bleeding, dysmenorrhea, PMS, ovulatory pain | Etiology Clinical Features management | group discussion, OPD | | |
| OG24.1 | Define, classify and discuss abnormal uterine bleeding, its management | Old terminology- Menorrhagia; Polymenorrhea; Metrorrhagia; Oligomenorrhea; Hypomenorrhea; DUB Oligomenorrhea; Hypomenorrhea; DUB FIGO PALM-COEIN classification Causes and its clinical features Investigations Management | Lectures 1hr Tutorials 1hr Bedside clinic | 6 th term | MCQs |
| Topic: Amenorrhea Number of competencies: (01) Number of procedures that require certification : (01) | | | | | |
| OG25.1 | Describe and discuss the causes of primary and secondary amenorrhea, its investigation and the principles of management. | definition of primary and secondary amenorrhea clinical types of amenorrhea physiological amenorrhea pathological amenorrhea causes of primary and secondary amenorrhea history, clinical examination, when to start investigating investigations panel differential diagnosis of primary and secondary amenorrhea | Lectures 1hr Tutorials 1hr Bedside clinic, Small group discussion, OPD | 6 th term | MCQs |
| OG25.2 | Describe and discuss sexual development and disorders of sexual development | Sexual Development Classification of intersex Disorder Turners Syndrome Klinefelter's syndrome | Lectures 1hr OPD | 6 th term | MCQs |
| Topic: Genital injuries and fistulae Number of competencies: (02) Number of procedures that require certification : (02) | | | | | |
| OG26.1 | Describe and discuss the etiopathogenesis, clinical features; investigation and implications on health and fertility and management of endometriosis and adenomyosis | ENDOMETRIOSIS - definition - prevalence and sites - pathogenesis (theories) - pathology - naked eye and microscopic appearance - ovarian endometrioma - Symptoms and signs - investigations - differential diagnosis - complications - management - expectant /medical / surgical /combined | Lectures 2hr Tutorials 1hr Bedside clinic, Small group discussion, OPD | 8 th term | MCQs |

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| | | ADENOMYOSIS <ul style="list-style-type: none"> - definition - causes - pathogenesis - symptoms and signs - investigations - differential diagnosis - management - complications | | | |
| Topic: Genital infections Number of competencies: (04) Number of procedures that require certification: | | | | | |
| OG27.1 | Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of sexually transmitted infections | Discuss etiopathogenesis of each STD Describe the clinical features Discuss differential diagnosis of STD Discuss investigations and management of STD Syndromic Approach Discuss long term implications of STD | Lectures 1hr Bedside clinic, Small group discussion, OPD | 6 th term | MCQs |
| OG27.2 | Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of genital tuberculosis | Describe aetiopathogenesis of genital TB Describe the clinical features Discuss differential diagnosis of genital TB Discuss investigations and management of genital TB Discuss long term implications of genital TB | Lectures 1hr Bedside clinic, Small group discussion, OPD | 6 th term | MCQs |
| OG27.3 | Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, | Describe etiopathogenesis of HIV Describe the clinical features of HIV in Gynaecology Discuss differential diagnosis of HIV Discuss investigations and management of HIV Discuss long term implications of HIV | Lectures 1hr Bedside clinic, Small group discussion, OPD | 6 th term | MCQs |

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| | management and long term implications of HIV | | | | |
| OG27.4 | Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of Pelvic Inflammatory Disease | Define PID Describe etiopathogenesis of PID Describe the clinical features of PID Discuss differential diagnosis of acute PID Discuss investigations and management of PID Discuss long term implications of PID | Lectures 1hr Tutorials 1hr Small group discussion, OPD | 6 th term | MCQs |
| OG27.5 | Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management of low back ache and chronic pelvic pain | Describe aetiology, clinical features, management of chronic PID Definition of chronic pelvic pain Difference between cyclic and acyclic pelvic pain Non gynaecological causes of pelvic pain Enumerate Different causes of pelvic pain (gynaecological) What is pelvic congestion syndrome and its management What is Cornett sign What is pessary test What is role of laparoscopy in diagnosis of chronic pelvic pain What is LUNA What is residual (trapped) ovarian syndrome | Lectures 1hr Small group discussion, OPD | 6 th term | MCQs |
| OG27.6 | Discuss clinical features, differential diagnosis, pathogens and management of Bartholin's abscess | Causative organisms Pathology Fate of infection of Bartholin gland clinical features local examination findings treatment recurrent Bartholinitis | Lectures 1hr Small group discussion, OPD | 6 th term | MCQs |
| Topic: Infertility Number of competencies:(04) Number of procedures that require certification : (NIL) | | | | | |

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| OG28.1 | Describe and discuss the common causes, pathogenesis, clinical features, differential diagnosis; investigations; principles of management of infertility – methods of tubal patency, ovulation induction, assisted reproductive techniques | Definition of infertility Enumerate the causes and pathogenesis Clinical features Evaluation of infertile couple, Discuss the principles of management of infertility | Lectures 1hr Tutorials 1hr Small group discussion, OPD | 8 th term | MCQs |
| OG28.2 | Enumerate the assessment and restoration of tubal patency | Causes for tubal factor in infertility Discuss the investigations to assess tubal patency Enumerate the methods to restore tubal patency | Lectures 1hr Tutorials 1hr Small group discussion, OPD | 8 th term | MCQs |
| OG28.3 | Describe the principles of ovulation induction | Discuss ovarian factor leading to infertility Enumerate the investigations for ovarian factor in infertility Discuss the principles and different methods available for ovulation induction | Lectures 1hr Tutorials 1hr Small group discussion, OPD | 8 th term | MCQs |
| OG28.4 | Enumerate the various Assisted Reproduction Techniques | Define ART Counselling for ART | Lectures 1hr Tutorials 1hr Small group discussion, OPD | 8 th term | MCQs |
| OG28.5 | Describe and discuss the common causes, pathogenesis, | Male Infertility : Discuss Aetiology - Genetic Disorders of Spermatogenesis | | | MCQs |

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| | clinical features; differential diagnosis; investigations; principles of management of male infertility | Disorders of Sperm Anatomical defect Sexual dysfunction & explain History to be elicited - To find the probable causes Investigation - WHO guidelines for semen analysis - Testicular biopsy - Immunological test -Chromosomal assay Enumerate ART methods | | | |
| Topic: Uterine fibroids Number of competencies: (01) Number of procedures that require certification | | | | | |
| OG29.1 | Describe and discuss the etiology; pathology; clinical features; differential diagnosis; investigations; principles of management, complications of fibroid uterus | Incidence and pathogenesis Risk factors Figo classification of types of fibroid Histological features of fibroid Clinical features Examination Investigations Differential diagnosis Management Asymptotic fibroids: Medical management : Indications Side effects Surgical management : Principles of myomectomy prerequisites Indications Contraindications Endoscopic procedures: Hysteroscopy Laproscopy Uterine artery embolization New methods: MRgFUS Abdominal hysterectomy | Lectures 1hr Tutorials 1hr Small group discussion, OPD, Intra operative | 8 th term | MCQs |
| Topic: PCOS and hirsutism Number of competencies: (02) Number of procedures that require certification | | | | | |
| OG30.1 | Describe and discuss the etiopathogenesis; clinical features; differential diagnosis; investigations; management, | discuss the etiopathogenesis of PCOS Discuss clinical features of PCOS investigations , Diagnostic criteria , Differential diagnosis Treatment Long term complications | Lectures 1hr Tutorials 1hr Small group discussion | 8 th term | MCQs |

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| | complications of PCOS | | | | |
| OG30.2 | Enumerate the causes and describe the investigations and management of hyperandrogenism | Definition of hirsutism Ovarian causes: Adrenal causes: Others: Clinical features investigations management | Lectures 1hr Small group discussion, OPD | 8 th term | MCQs |
| Topic: Uterine prolapse Number of competencies: (01) Number of procedures that require certification : | | | | | |
| OG31.1 | Describe and discuss the etiology, classification, clinical features, diagnosis, investigations, principles of management and preventive aspects of prolapse of uterus | Definition of pelvic organ prolapse Supports of uterus Pathophysiology and causes of prolapse Classification of pelvic organ prolapse Symptoms of prolapse Clinical evaluation including history and examination Differential diagnosis of mass per vaginum investigations Factors determining the choice of treatment in pelvic organ prolapse Management of prolapse: pessary treatment in pelvic organ prolapse preventive aspects of prolapse of uterus | Lectures 1hr Tutorials 1hr Small group discussion , OPD, OT, Bed side clinics | 8 th term | MCQs |
| Topic: Menopause Number of competencies: (02) Number of procedures that require certification : (N | | | | | |
| OG32.1 | Describe and discuss the physiology of menopause, symptoms, prevention, management and the role of hormone replacement therapy. | Definition of menopause Physiology of menopause Symptoms and investigations Management and HRT | Lectures 1hr Small group discussion , OPD | 6 th term | MCQs |
| OG32.2 | Enumerate the causes of postmenopausal bleeding and describe its management | Definition of post-menopausal BLEEDING causes investigations management | Lectures 1hr Tutorials 1hr Small group discussion, OPD, minor OT, Bed side clinics | 9 th term | MCQs |

Topic: Benign, Pre-malignant (CIN) and Malignant Lesions of the Cervix Number of competencies: (04) require certification : (NIL)

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| OG33.1 | Classify, describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations and staging of cervical cancer | Risk factors Clinical features Signs and symptoms Modes of spread investigations Histological types of c a Cervix Staging of Ca cervix-FIGO | Lectures 2hr Tutorials 1hr Small group discussion , OPD | 9 th term | MCQs |
| OG33.2 | Describe the principles of management including surgery and radiotherapy of Benign, Pre-malignant (CIN) and Malignant Lesions of the Cervix | Benign lesions: Etiopathogenesis Clinical features Symptoms and treatment: preventive and definitive | Lectures 1hr Small group discussion , OPD | 9 th term | MCQs |
| Premalignant lesions of cervix (CIN): Pathogenesis Etiology Symptoms Investigations Treatment of CIN: preventive and definitive | | | | | |
| Ca cervix: Management of Cervical Cancer according to staging Types of hysterectomy Indications for radiotherapy & Chemotharapy | | | | | |
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| OG33.3 | Describe and demonstrate the screening for cervical cancer in a simulated environment | Complications and followup counsel the patient about need for Pap smear Examination take informed consent about the procedure ensure the adequate privacy at examination area keep ready equipment needed for the procedure Perform examination under aseptic precaution Document the findings Proper disposal of gloves | Small group discussion, OPD, Skill Lab, DOAP | 9 th term | MCQs |
| OG33.4 | Enumerate the methods to prevent cancer of cervix including visual inspection with acetic acid (VIA), visual inspection of | Need for screening: Methods: VIA VILI PAP Colposcopy Indications Methods inference | Lectures 1hr Small group discussion, OPD | 9 th term | MCQs |

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| | cervix with Lugol's iodine (VILI), pap smear and colposcopy | | | | |
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Topic: Benign and malignant diseases of the uterus and the ovaries Number of competencies: (04) Nursing certification : (NIL)

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| OG34.1 | Describe and discuss aetiology, pathology, staging clinical features, differential diagnosis, investigations, staging laparotomy and principles of management of endometrial cancer | Types of endometrial hyperplasia Incidence, aetiology of endometrial cancer Pathology – gross, microscopic features. Types of endometrial cancer Modes of spread Diagnosis Figo staging Differential diagnosis, investigations Steps of staging laparotomy Chemotherapy and radiotherapy Follow-up | Lectures 1hr Small group discussion, OPD, intra operative | 9 th term | MCQs |
| OG34.2 | Describe and discuss the etiology, pathology, classification, staging of ovarian cancer, clinical features, differential diagnosis, investigations, principal of management including staging laparotomy | Incidence, aetiology for ovarian cancer Genetics and ovarian malignancy Pathology Classification of ovarian cancer Modes of spread Clinical features Investigations Diagnosis Figo staging Differential diagnosis Screening Surgical management Chemotherapy Follow-up Germ cell tumours of ovary Discuss the role of Tumour markers | Lectures 2hr Tutorials 1hr Small group discussion, OPD, intra operative, Bed side clinics | 9 th term | MCQs |
| OG34.3 | Describe and discuss the etiology, pathology, classification, staging, clinical features, differential diagnosis, investigations | Gestational trophoblastic disease- spectrum WHO based prognostic scoring Incidence Aetiology pathology staging Spread, clinical features Investigations, management Surveillance during and after therapy | Lectures 1hr Tutorials 1hr Small group discussion, OPD, Bed side clinics | 9 th term | MCQs |

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| | and management of gestational trophoblastic disease | | | | |
| OG34.4 | Operative Gynaecology : Understand and describe the technique and complications: Dilatation & Curettage (D&C); EA-ECC; cervical biopsy; abdominal hysterectomy; myomectomy; surgery for ovarian tumours; staging laparotomy; vaginal hysterectomy including pelvic floor repair; Fothergill's operation, Laparoscopy; hysteroscopy; management of postoperative complications | operative gynaecology: technique and complications Dilatation and curettage: indications, steps, complications Endometrial aspiration – endocervical curettage Cervical biopsy: types, indications, steps, procedures, complications TAH: types, indications, steps, complications Myomectomy: measures to control blood loss during myomectomy, steps, complications Surgery for ovarian tumours Staging laparotomy VH+PFR: steps, complications Fothergill's operation: indications, steps, complications Laparoscopy: advantages, disadvantages, instruments, indications, contraindications, techniques, complications Hysteroscopy: instruments, distending media, anaesthesia, procedures, indications, contraindications, complications | Lectures 2hr Small group discussion, OPD, OT, Minor OT | 9 th term | MCQs |
| OG34.5 | Benign lesions of cervix, ovary | Benign disorders of cervix - cervical erosion - cervical ectropion - cervical polyp Benign disorders of ovary - -Enumerate the conditions of non-neoplastic ovarian enlargement - classification of Benign ovarian tumors -complications of Benign ovarian tumors | Lectures 2hr Small group discussion, OPD, Bed side clinics | 8 th term | MCQs |
| Topic: Obstetrics & Gynecological skills - I Number of competencies: (17) Number of procedures that r | | | | | |
| OG35.1 | Obtain a logical sequence of history, and | Obtain a demographic data Chief complaints History of presenting complaints | Small group | 3 rd 4 th 6 th & | |

| | | | | | |
|--------|---|--|-----------------------------------|--|--|
| | perform a humane and thorough clinical examination, excluding internal examinations (perrectal and per-vaginal) | Obstetric and menstrual history Past and family history Treatment history Personal history General physical examination including breast and thyroid, BMI SYSTEMIC EXAMINATION- RS/ CVS/CNS ABDOMEN EXAMINATION | discussion, OPD, DOAP | 8 th term | |
| OG35.2 | Arrive at a logical provisional diagnosis after examination. | With elicited history and detailed examination arrive at a logical provisional diagnosis | Small group discussion, OPD, DOAP | 6 th 8 th & 9 th term | |
| OG35.3 | Recognize situations, which call for urgent or early treatment at secondary and tertiary centres and make a prompt referral of such patients after giving first aid or emergency treatment. | Analysis of clinical situation Identify the risk factors and need for urgent treatment Administer emergency medications Transfer to tertiary care centre | Small group discussion, OPD, DOAP | 8 th & 9 th term | |
| OG35.4 | Demonstrate interpersonal and communication skills befitting a physician in order to discuss illness and its outcome with patient and family | Counsel the patient and family members Arrive at a provisional diagnosis Explain the medical condition to family members in a language understood by them Discuss the medical and surgical management, complications, requirement of blood and blood products if needed Explain the prognosis of medical condition | Small group discussion, OPD, DOAP | 8 th & 9 th term | |
| OG35.5 | Determine gestational age, EDD and obstetric formula | Address their concerns GA; Menstrual History. Clinical methods Ultrasound examination EDD; Menstrual History Negele's Formula Clinical methods Dating scan No dating scan Then interval Scan | Small group discussion, OPD, DOAP | 8 th & 9 th term | |

| | | | | | | | | |
|------------------|--|--|--|---|------------------|-----------------------------------|--|--|
| OG35.6 | Demonstrate ethical behavior in all aspects of medical practice. | Definition Gravida, Para, Living, Dead and Abortion Autonomy Justice Beneficence | Small group discussion, OPD, DOAP, role play | 3 rd 4 th 6 th 8 th & 9 th term | | | | |
| OG35.7 | Obtain informed consent for any examination / procedure | Non malfeasance For Examination: Informed oral consent For Procedure; informed written consent Signature is must diagnosis of condition name and purpose of procedure benefits, risks, and alternative procedures benefits and risks of each alternative procedures | Small group discussion, OPD, DOAP | 3 rd 4 th 6 th 8 th & 9 th term | | | | |
| OG35.8 | Write a complete case record with all necessary details | Demography Obstetric score with amenorrhea LMP EDD Menstrual history Chief complaint HOPI Present obstetric history, Past obstetric history Past medical and surgical history and personal history General Physical examination with Vitals. Breast and Spine examination Specific Systemic Examination Diagnosis | Small group discussion, DOAP | 3 rd 4 th 6 th 8 th & 9 th term | | | | |
| OG35.9 | Write a proper discharge summary with all relevant information | Contents of discharge summary -name, age, sex, hospital number, address, date of admission &discharge Final diagnosis Name of the operative interventions and intraoperative findings& complications Brief history Relevant investigations and Reports Course in the hospital in brief Advice on discharge Warning signs and symptoms relevant to the case to be mentioned Timing of follow up visits | Small group discussion, DOAP | 8 th & 9 th term | | | | |
| OG35.10 | Write a proper referral note to secondary or tertiary centres or to other physicians with all necessary details. | Definition of referral letter Patient demographics Registered general Practitioner details <table border="1"><tr><td>Referral Details</td></tr><tr><td>- Institute</td></tr><tr><td>- Specialty dept</td></tr></table> Referring Practitioner details Presenting complaints Past /Family History | Referral Details | - Institute | - Specialty dept | Small group discussion, OPD, DOAP | 8 th & 9 th term | |
| Referral Details | | | | | | | | |
| - Institute | | | | | | | | |
| - Specialty dept | | | | | | | | |

| | | | | | |
|---------|---|---|--|---|--|
| | | Assessment and examination Legal information Management to date Reason and urgency for referral | | | |
| OG35.11 | Demonstrate the correct use of appropriate universal precautions for self-protection against HIV and hepatitis and counsel patients | Universal Infection Control Precautions Protective Clothing Isolation Facilities Spillage Of Blood and Body Fluids Sterilization And Disinfection Intravenous Procedures Waste Disposal Staff Protection and Immunization | Small group discussion, OPD, DOAP | 3 rd 4 th 6 th 8 th & 9 th term | |
| OG35.12 | Obtain a PAP smear in a stimulated environment | counsel the patient about need for Pap smear Examination ensure the adequate privacy at examination area keep ready equipment needed for the procedure perform examination under aseptic precaution document the findings Proper disposal of gloves | DOAP Skill lab | 8 th & 9 th term | |
| OG35.13 | Demonstrate the correct technique to perform artificial rupture of membranes in a simulated / supervised environment | Indications Complications Pelvic examination findings Colour of liquor Foetal Heart Assessment Verbal consent | DOAP, Evening labour room posting Skill lab | 8 th & 9 th term | |
| OG35.14 | Demonstrate the correct technique to perform and suture episiotomies in a simulated/ supervised environment | Define Types Advantages Disadvantages Correct technique Complications – immediate & late | DOAP, Evening labour room posting Skill lab | 8 th & 9 th term | |
| OG35.15 | Demonstrate the correct technique to insert and remove an IUD in a simulated/ supervised environment | Define Types Mechanism of action Advantages Disadvantages Indications and contra indications Criteria for selection of a client Techniques Uses | Skill lab | 8 th & 9 th term | |

| | | | | | |
|---|---|---|---|--|------------------|
| | | Complications | | | |
| OG35.16 | Diagnose and provide emergency management of antepartum and postpartum hemorrhage in a simulated / guided environment | Symptoms and signs Examination Resuscitation - Airway, breathing, circulation Vitals monitoring Conservative management, medical, balloon tamponade, brace suturing, stepwise devascularization, Emergency hysterectomy. | Small group discussion, drills, Skill lab | 8 th & 9 th term | Skill assessment |
| OG35.17 | Demonstrate the correct technique of urinary catheterization in a simulated/ supervised environment | Verbal consent after explaining to the patient Able to recognize and identify external urethral meatus with knowledge of anatomy of urethra Knows importance of aseptic precautions, proper painting and draping of the patient for the procedure Identifies foley's catheter and its parts, urosac Can demonstrate the procedure of catheterization on a mannequin | Skill lab | 8 th & 9 th term | Skill assessment |
| Topic: Obstetrics & Gynecological skills - II Number of competencies: (03) Number of procedures that | | | | | |
| OG36.1 | Plan and institute a line of treatment, which is need based, cost effective and appropriate for common conditions taking into consideration (a) Patient (b) Disease (c) Socio-economic status (d) Institution/ Governmental guidelines. | History taking to help to arrive at the differential diagnosis Appropriate examination of the patient to elicit signs and narrow the list of differential diagnosis Appropriate investigation to arrive at most probable diagnosis Understanding the specificity and sensitivity of an investigation and its value in arriving at a diagnosis Have idea about cost of investigations so that balance decisions can be taken. Have institutional protocols for common diseases on conditions Understand and cost involved in various treatment options and chooses the appropriate treatment based on social economic status | Small group discussion, Bed side clinics | 8 th & 9 th term | |
| OG36.2 | Organize antenatal, postnatal, well-baby and family welfare clinics | Understands the role of conservative treatment / medical treatment / surgical treatment for various disease conditions Will understand antenatal care and its importance Know the requirements for providing ANC care Will understand the various warning symptoms during antenatal period Knowledge of puerperium Knowledge of assessing the neonatal wellbeing Importance of breast feeding | Small group discussion, Bed side clinics | 8 th & 9 th term | |

| | | | | | |
|--|--|--|-------------------------------|--|--|
| | | Understand attachment, latching and suckling in breast feeding evaluation Value of organizing postnatal clinics along with paediatrician /neonatologist for comfort and benefit of mother and baby Able to counsel regarding family planning in the postnatal visit | | | |
| OG36.3 | Demonstrate the correct technique of punch biopsy of Cervix in a simulated/ supervised environment | Consent for the procedure Identify the punch biopsy forceps Aseptic precautions, painting and draping for the procedure Visualize the cervix using appropriate instrument Demonstrate the procedure on a mannequin Collect the specimen for histopathological examination | Small group discussion OPD | 8 th & 9 th term | |
| Topic: Obstetrics & Gynecological skills - III Number of competencies: (07) Number of procedures that | | | | | |
| OG37.1 | Observe and assist in the performance of a Caesarean section | Define caesarean section [CS] Mention the indication for CS Describe preoperative care, investigations, informed consent Appreciate the need to cross match and confirm blood Inform anaesthetist, OT staff and neonatologist Observe hand washing, safety check list, instrument counts, type of anaesthesia given Enumerate the steps of LSCS List the complications of CS and its management Describe the post-operative care | Small group discussion, OT | 8 th & 9 th term | |
| OG37.2 | Observe and assist in the performance of Laparotomy | Appreciate the importance Documentation of all steps, events including new born details Indication for laparotomy Describe the preoperative care and investigations Informed consent, arrange blood and ICU bed Lists the steps of laparotomy, need for frozen section. Patient positioning and anaesthesia Complications of the procedure Post Operative care | Small group discussion, OT | 8 th & 9 th term | |
| OG37.3 | Observe and assist in the performance of Hysterectomy – abdominal/vaginal | Documentation of all events Indications Assessment for route of surgery Preoperative preparation Informed consent Anaesthesia and patient positioning Steps of Hysterectomy- abdominal/vaginal Complications of the procedure Post Operative care | Small group discussion, OT | 8 th & 9 th term | |

| | | | | | |
|--------|---|--|---|--|--|
| OG37.4 | Observe and assist in the performance of Dilatation & Curettage (D&C) | Documentation of all events Indications and contraindications Patient evaluation and pre op preparation Informed consent and anaesthesia Steps of procedure Post procedure monitoring Complications of the procedure Documentation of all events | Small group discussion, Minor OT OPD | 8 th & 9 th term | |
| OG37.5 | Observe and assist in the performance of Endometrial aspiration - endocervical curettage (EA-ECC) | Discharge advice Know how to take informed consent How to perform per speculum and per vaginal examination Know about instruments used (Pipelle) and aseptic precautions How to take utero cervical length/ cervical length Procedure of EA-ECC Know how to fill the relevant clinical details in HPE /Biopsy form Postop instructions and follow up | Small group discussion, Minor OT OPD | 8 th & 9 th term | |
| OG37.6 | Observe and assist in the performance of outlet forceps application of vacuum and breech delivery | Know how to take informed consent Identify whether there is an appropriate indication for application of outlet forceps/ vacuum/ breech delivery Assess whether all criteria for application of outlet forceps/ vacuum/ breech delivery are met Pre requisites – availability of OT, blood products, Neonatologist, Senior Obstetrician Labour analgesia/ anaesthesia Know how to perform phantom application of outlet forceps/ check equipment of vacuum and choose an appropriate cup/ manoeuvres for delivery of legs, arms, shoulders and head in assisted breech delivery Perform application of outlet forceps/ vacuum/ breech delivery Know how to give and suture episiotomy and aseptic precautions Identify maternal and neonatal complications Documentation of the procedure | Small group discussion, Evening labour room posting | 8 th & 9 th term | |
| OG37.7 | Observe and assist in the performance of MTP in the first trimester and evacuation in incomplete abortion | Counselling the patient regarding the various methods available and complications of each and taking informed consent Look for any contraindications for the method chosen Prescription of first trimester MTP pills Identifying the complications of MTP pills/Incomplete abortion/ Evacuation of retained products Know regarding equipment, instruments and drugs used (Karmans cannula, Suction apparatus) | Small group discussion, Minor OT | 8 th & 9 th term | |

| | | | | | |
|---|--|---|----------------------------|--|--|
| | | Procedure for Evacuation of retained products in incomplete abortion, under aseptic precautions Check the need for USG and Anti D Know how to fill the relevant clinical details in HPE /Biopsy form Post operative/ post pill instructions and follow up Documentation of the procedure and know which register needs to be filled for intimation to Health Department of Government | | | |
| Topic: Should observe Number of competencies: (04) Number of procedures that require certification | | | | | |
| OG38.1 | Laparoscopy | Indications for laparoscopy Contraindications for laparoscopy Informed consent Anaesthesia under which it is performed and its complications Complications of laparoscopy Postoperative instructions | Small group discussion, OT | 8 th & 9 th term | |
| OG38.2 | Hysteroscopy | Definition of Hysteroscopy Steps of Hysteroscopy Indications of Hysteroscopy Diagnostic Hysteroscopy Operative Hysteroscopy Fluid distension Media Post Op care and advice Risks and Complications of Hysteroscopy | Small group discussion, OT | 8 th & 9 th term | |
| OG38.3 | Lap sterilization | Sterilization procedure in women Steps of tubal sterilization done laparoscopically Effectiveness of Lap sterilization in prevention of pregnancy Risks associated with Lap tubal sterilization Benefits of Lap tubal sterilization Ideal timing for Lap tubal sterilization Reversal of Lap tubal sterilization procedure | Small group discussion | 8 th & 9 th term | |
| OG38.4 | Assess the need for and issue proper medical certificates to patients for various purposes | Definition of Medical certificate Medical Certificate certifying illness Medical Certificate certifying fitness Assessing the patient illness and nature of work Responsibility of the issuing doctor Responsibility of the patient Responsibility of the the third party Certificate Requirements Date of Certificate | Small group discussion | 8 th & 9 th term | |

Summary of course content, teaching and learning methods and student assessment for the undergraduate (MBBS) Curriculum in Obstetrics and gynaecology

Course content

The course content been given in detail in the above Table, which includes competencies, specific learning objectives for each competency and the suggested Teaching-Learning methods and assessment methods both formative and summative. The competencies have been developed by an expert group nominated by NMC, while the SLOs, T-L methods and assessments methods have written by the expert committee constituted by Sri Siddhartha Academy of Higher Education.

Teaching-Learning methods and Time allotted

| | Lectures (hours) | Small group discussion (hours) | Self- directed learning (hours) | Total hours | Clinical postings (weeks) |
|---------------------------------------|---------------------|--------------------------------------|--|----------------|--|
| 2nd MBBS | 25 | | | 25 | 4weeks First posting in 3- 4 th terms (15hours/week) |
| 3rd MBBS Part 1 | 25 | 35 | 5 | 65 | 4weeks Second posting in 6-7 th terms (18hours/week) |
| 3rd MBBS Part 2 | 70 | 125 | 15 | 210 | 8+4weeks 3 rd &4 th posting (18hours/week) |
| Total | 120 | 160 | 20 | 300 | 20weeks (This includes maternity and family welfare and family planning) Two postings of 4 weeks each. and |

Time allotted excludes time reserved for internal / University examinations, and vacation.

25% of allotted time (non-clinical time) of third Professional shall be utilized for integrated learning with pre- and para- clinical subjects. This will be included in the assessment of clinical subjects.

Teaching-learning methods shall be learner centric and shall predominantly include small group learning, interactive teaching methods and case-based learning. Didactic lectures not to exceed one-third of the total teaching time. The teaching learning activity focus should be on application of knowledge rather than acquisition of knowledge.

The curricular contents shall be vertically and horizontally aligned and integrated to the maximum extent possible to enhance learner's interest and eliminate redundancy and overlap. The integration allows the student to understand the structural basis of Obstetrics and Gynaecology problems, their management and correlation with function, rehabilitation, and quality of life

Acquisition and certification of skills shall be through experiences in patient care, diagnostic and skill laboratories. Use of skill lab to train undergraduates in listed skills should be done mandatorily.

The clinical postings in the second professional shall be 15 hours per week (3 hrs per day from Monday to Friday)

The clinical postings in the third professional part II shall be 18 hours per week (3 hrs per day from Monday to Saturday)

Newer T-L method like Learner-doctor method (Clinical clerkship) should be mandatorily implemented, from 1st clinical postings in Obstetrics and Gynaecology itself.

The goal of this type of T-L activity is to provide learners with experience in longitudinal patient care, being part of the health care team, and participate in hands-on care of patients in outpatient and inpatient setting. During the 1st clinical postings, the students are oriented to the working of the department. During the subsequent clinical posting the students are allotted patients, whom they follow-up through their stay in the hospital, participating in that patient's care including case work-up, following-up on investigations, presenting patient findings on rounds, observing surgeries if any till patient is discharged.

| Curriculum Focus of Learner - Doctor programme | |
|--|--|
| Posting 1 | Introduction to hospital environment, early clinical exposure, understanding perspectives of illness |
| Posting 2 | History taking, physical examination, assessment of change in clinical status, communication and patient education |
| Posting 3 | All of the above and choice of investigations, basic procedures and continuity of care |
| Posting 4 | All of the above and decision making, management and outcome |

Attitude, Ethics & Communication Module (AETCOM module)

The development of ethical values and overall professional growth as integral part of curriculum shall be emphasized through a structured longitudinal and dedicated programme on professional development including attitude, ethics, and communication which is called the AETCOM module. The purpose is to help the students apply principles of bioethics, systems-based care, apply empathy and other human values in patient care, communicate effectively with patients and relatives and to become a professional who exhibits all these values. This will be a longitudinal programme spread across the continuum of the MBBS programme including internship. MBBS Phase 3 Part 2, has to complete 8 modules of 5 hours each. The OBG faculty will have the responsibility of conducting 2-3 modules as per the decision and logistics of each institution.

Assessment

Eligibility to appear for university examinations is dependent on fulfilling criteria in two main areas – attendance and internal assessment marks

Attendance

Attendance requirements are 75% in theory and 80% in clinical postings for eligibility to appear for the examinations in Obstetrics and Gynaecology.

75% attendance in AETCOM Module is required for eligibility to appear for final examination in 3rd professional year 3 part 2.

Internal Assessment

Progress of the medical learner shall be documented through structured periodic assessment that includes formative and summative assessments. Logs of skill-based training shall be also maintained.

There shall be no less than four theory internal assessment (One each in 2nd MBBS and 3rd MBBS Part1 and Two in 3rd MBBS Part2) excluding the prelims in Obstetrics and Gynaecology. An end of posting clinical assessment shall be conducted for each of the clinical postings in Obstetrics and Gynaecology. There will be one Theory and Clinical preliminary exams before the student is eligible for university exams.

Day to day records and logbook (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

Learners must secure at least 50% marks of the total marks (combined in theory and clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in Obstetrics and Gynaecology to be eligible for appearing at the final University examination.

Internal assessment marks will reflect as separate head of passing at the summative examination.

The results of internal assessment should be displayed on the notice board within 1-2 weeks of the test.

Remedial measures should be offered to students who are either not able to score qualifying marks or have missed on some assessments due to any reason.

Learners must have completed the required certifiable competencies for that phase of training and Obstetrics and Gynaecology logbook entry completed to be eligible for appearing at the final university examination.

AETCOM assessment will include: (a) Written tests comprising of short notes and creative writing experiences, (b) OSCE based clinical scenarios / viva voce.

University examinations

University examinations in Third Professional Part II shall be held at end of 12months of training in the subjects of Medicine, Surgery including Orthopedics, Obstetrics and Gynecology and Pediatrics.

University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimal level of skills, ethical and professional values with clear concepts of the fundamentals which are necessary for him/her to function effectively and appropriately as a physician of first contact.

Assessment shall be carried out on an objective basis to the extent possible.

Marks allotted

| Obstetrics and Gynecology | Theory | Clinical examination |
|---------------------------|---|---------------------------------|
| Total marks | 2 papers of 100 marks each for Obstetrics and Gynecology. The pattern of each question paper is given below | 200 marks |
| | Long essay 2X10= 20 | One obstetric case for 80 marks |

| | | |
|--|---------------------------------------|--|
| | Short essay 6x5=30 marks | One gynaec case for 80 marks |
| | Short answer question 10x3=30marks | Viva-voce for 40 marks. Station-1: Dummy, pelvis and fetal skull. Station-2: Instruments Station-3: Specimens Station-4: Drugs and contraception |
| | MCQs 20x1=20marks | |

The theory paper should include different types such as structured essays, short essays, Short Answers Questions (SAQ) and MCQs (Multiple Choice Questions). Marks for each part should be indicated separately.

All the question papers to follow the suggested **blueprint (APPENDIX 1)**. It is **desirable that** the marks allotted to a particular topic are adhered to.

A minimum of **80%** of the marks should be from the **must know** component of the curriculum. A maximum of **20%** can be from the **desirable to know** component. All **main essay questions** to be from the **must know component** of the curriculum.

One main essay question to be of the **modified variety** containing a clinical case scenario. At least 30% of questions should be clinical case scenario based. Questions to be constructed to test higher cognitive levels.

Clinical examinations will be conducted in the hospital wards. Clinical cases kept in the examination must be of common conditions that the learner may encounter as a physician of first contact in the community. Selection of rare syndromes and disorders as examination cases is to be discouraged. Emphasis should be on candidate's capability to elicit history, demonstrate physical signs, write a case record, analyse the case and develop a management plan.

Viva/oral examination should assess approach to patient management, emergencies, attitudinal, ethical, and professional values. Candidate's skill in interpretation of common investigative data, X-rays, identification of specimens, ECG, etc. is to be also assessed.

At least one question in each paper of the clinical specialties in the University examination should test knowledge competencies acquired during the professional development programme. Skill competencies acquired during the Professional Development Programme must be tested during the clinical, practical and viva voce. There shall be one main examination in an academic year and a supplementary to be held not later than 90 days after the declaration of the results of the main examination.

Pass criteria

Internal Assessment: 50% combined in theory and practical (not less than 40% in each) for eligibility for appearing for University Examinations

University Examination: Mandatory 50% marks separately in theory and clinicals (clinicals = clinical + viva)

The grace marks up to a maximum of five marks may be awarded at the discretion of the University to a learner for clearing the examination as a whole but not for clearing a subject resulting in exemption.

Appointment of Examiners

Person appointed as an examiner in the subject must have at least four years of total teaching experience as assistant professor after obtaining postgraduate degree in the subject in a college affiliated to a recognized/approved/permitted medical college. For the Practical/ Clinical examinations, there shall be at least four examiners for 100 learners, out of whom not less than 50% must be external examiners. Of the four examiners, the senior-most internal examiner will act as the Chairman and coordinator of the whole examination programme so that uniformity in the matter of assessment of candidates is maintained.

Where candidates appearing are more than 100, two additional examiners (one external & one internal) for every additional 50 or part there of candidates appearing, be appointed.

All eligible examiners with requisite qualifications and experience can be appointed as internal examiners by rotation

External examiners may not be from the same University.

There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions.

All theory paper assessment should be done as central assessment program (CAP) of concerned university.

BLUEPRINT FOR ASSESSMENT

This section contains the following items

- a. Rationale behind the blueprinting with excerpts from NMC document on assessment.

- b. Suggested Blueprinting for Obstetrics (including contraception)
- c. Sample for a 100-mark theory question paper in Obstetrics
- d. Suggested blueprinting for Gynecology theory 100 marks paper
- e. Sample for a 100-mark theory question paper in Obstetrics
- f. Comments on the theory blueprint and samples
- g. Principles to be followed in practical assessment
- h. Schema for practical examination (200 marks)
- i. Sample examination format

RATIONALE BEHIND THE BLUEPRINTING WITH EXCERPTS FROM NMC DOCUMENT ON ASSESSMENT

As per NMC guidelines, a balance should be drawn between the action verbs which are specified in the Bloom's taxonomy along with a balance of the topics of the curriculum

Levels of Bloom's Taxonomy with Suggested Verbs in the questions are specified below.

| | |
|----------------------|---|
| Knowledge | Define, Describe, Draw, Find, Enumerate, Cite, Name, Identify, List, label, Match, Sequence, Write, State |
| Comprehension | Discuss, Conclude, Articulate, Associate, Estimate, Rearrange, Demonstrate understanding, Explain, Generalise, Identify, Illustrate, Interpret, Review, Summarise |
| Application | Apply, Choose, Compute, Modify, Solve, Prepare, Produce, Select, Show, Transfer, Use |
| Analysis | Analyse, Characterise, Classify, Compare, Contrast, Debate, Diagram, Differentiate, Distinguish, Relate, Categorise |
| Synthesis | Compose, Construct, Create, Verify, Determine, Design, Develop, Integrate, Organise, Plan, Produce, Propose, rewrite |
| Evaluation | Appraise, Assess, Conclude, Critic, Decide, Evaluate, judge, Justify, Predict, Prioritise, Prove, Rank |

The focus should be on providing clinical oriented questions rather than purely theoretical questions. All faculty and students are directed to the NMC document on Competency Based Assessment for further details.

The blueprinting provided is an estimate only. While exact adherence to the number of questions may not be perfectly possible, the spirit of the blueprint must be honoured while setting the paper. This document will guide teachers/ students and evaluators on what to focus on.

SUGGESTED BLUEPRINTING FOR OBSTETRICS (INCLUDING CONTRACEPTION)

| Level of Bloom's taxonomy tested | Demography / Anatomy/ Physiology/ Fetus/ Placenta/ Diagnosis of pregnancy | Antenatal care/ Complications in early pregnancy/ APH/ Multiple pregnancy/ Medical disorders in pregnancy | Labour/Abnormal lie/ presentation/ Operative obstetrics / Complications in 3rd stage of labour | Lactation/Care of newborn/ Puerperium | MTP/ Contraception | Number of questions |
|---|--|--|--|--|---------------------------|----------------------------|
| Knowledge | 1 | 1 | 1 | 1 | 2 | 6 |
| Comprehension | 1 | 2 | 2 | 1 | 1 | 7 |
| Application | 0 | 1 | 2 | 0 | 0 | 3 |
| Analysis | 1 | 1 | 1 | 1 | 0 | 4 |
| Synthesis | 0 | 0 | 0 | 0 | 1 | 1 |
| Evaluation | 0 | 1 | 0 | 0 | 0 | 1 |
| Questions in each topic | 3 | 6 | 6 | 3 | 4 | Grand total 22 |

***Operative procedures may be incorporated into questions in the respective topics.**

A suggested distribution of topics in obstetrics incorporated with the Levels of Bloom's taxonomy is tabulated below.

| Level of Bloom's taxonomy tested | Vaginal discharge/Genital infections | AUB/ Fibroid/ Genital Injuries/ Fistula | Puberty/ Amenorrhea/ Menopause/ Prolapse | Infertility/ PCOS/ Hirsutism | CIN/ Malignancy | Number of questions |
|---|---|--|---|---|----------------------------|----------------------------|
| Knowledge | 1 | 1 | 2 | 2 | 0 | 6 |
| Comprehension | 1 | 2 | 2 | 0 | 2 | 7 |
| Application | 0 | 1 | 0 | 1 | 1 | 3 |
| Analysis | 0 | 0 | 0 | 1 | 1 | 2 |
| Synthesis | 1 | 0 | 0 | 0 | 1 | 2 |
| Evaluation | 0 | 1 | 0 | 1 | 0 | 2 |
| Questions in each topic | 3 | 4 | 4 | 5 | 5 | Grand total 22 |

***Operative procedures may be incorporated into questions in the respective topics.**

SAMPLE FOR A 100-MARK THEORY QUESTION PAPER IN GYNECOLOGY

LONG ESSAY (2 x 10 marks = 20 marks)

1. 34-year-old comes with excessive menstrual bleeding with passage of clots. She is not pregnant.
 - a. Discuss the PALM COEIN approach to classifying this condition. (3)
 - b. Describe in detail the conditions – L and M (2+2)

She is investigated and found to have a 8x8 cm leiomyoma.

- c. Discuss the principles and steps in the operative management of such a condition. (3)
2. 15-year-old girl is brought by parents with complaints that she has not attained menstruation.
 - a. What is the condition (1). Define this condition (1).
 - b. Enumerate the various causes for the condition (3).
 - c. Describe the clinical (2) and management (3) of imperforate hymen.

SHORT ESSAY (10 x 5 marks = 50 marks)

3. Genital tuberculosis. Discuss the clinical features (2 marks). Enumerate the investigations (1 mark). Discuss the management (2 marks).
4. A 24-year-old P1L1 comes with complaints of curdy white discharge per vaginum. Apply the concept of syndromic management of Sexually Transmitted Disease and prepare a treatment plan for such a patient.
5. Discuss the etiological factors (2 marks), clinical features (1 mark) and classification (2 marks) and of uterovaginal prolapse.
6. Define menopause (1). Discuss the clinical features (2) and management options (2) for menopausal transition.
7. A couple married for 4 years comes with complaints of not being able to bear children. Classify the various causes of this condition.
8. 45-year-old woman has undergone pap smear and the report shows H-SIL. Discuss the options for management (3) and follow up (2) for the condition
9. Classify Ovarian tumours (WHO classification).
10. A 30-year-old came with raised Beta HCG and passage of grape like vesicles per vaginum. Uterus was evacuated.
 - a. What is the condition likely to be (1 mark).
 - b. Prepare a management plan(2 marks)
 - c. Follow-up plan (2 marks) for this patient.

SHORT ANSWER QUESTIONS (10 x 3 marks = 30 marks)

11. Enumerate the criteria for Bacterial vaginosis. (1+1+1)
12. Illustrate any one theory of endometriosis.

13. Enumerate three etiological factors for genital fistula (1+1+1)
14. 38-year-old comes with abnormal uterine bleeding not responding to tranexamic acid. Uterine curettage shows endometrial hyperplasia without atypia. She is willing for regular follow-up and is not willing for major operative procedure. Choose the best treatment modality (1) and describe the modality. (2)
15. List three options for conservative management of prolapse (1 each)
16. An obese hirsute 33-year-old woman presents with irregular menstrual cycles and ultrasonography suggestive of peripherally arranged follicles. Choose three pharmacological management options for her. (1 each)
17. Enumerate the parameters of semen analysis with their normal range (1 each)
18. A 56-year-old woman with endometrial curettage showing Carcinoma Endometrium has an MRI showing spread to serosa of corpus uteri but no invasion of other pelvic organs or vagina. Paraaortic and pelvic lymph nodes appear negative. What is the presumptive stage of this patient (1.5). What is the next step (1.5)?
19. Justify the usage of tranexamic acid as the first line of management of AUB. (3)
20. You are the district officer in-charge for popularizing routine early cancer screening for genital malignancy. Develop 6 points which can be put in a poster for encouraging patients to undergo early cancer screening.

SELECT THE SINGLE BEST RESPONSE TO THE MULTIPLE CHOICE QUESTIONS GIVEN BELOW. 10X1=10 marks

21.(i) Increase in menstrual bleeding in amount of bleeding or duration with regular cycles is called;

- e) Metrorrhagia
- f) Metropathia hemorrhagica
- g) Menorrhagia
- h) Polymenorrhoea

21.(ii) A 21 year old P1L1 has delivered 45 days back. She is not breastfeeding her infant. She has tested HIV positive during her antenatal checkup. She wants a temporary method of contraception.

What are her options?

- e) Combined oral contraceptive pills
- f) Copper Intra uterine device
- g) LNG implant
- h) LNG Intrauterine device

21.(iii)The Length of fallopian tube is:

- e) 8-12cm
- f) 12-15cm
- g) 15-18cm
- h) 18-20cm

21.(iv)The Corpus luteum secretes:

- e) Estrogens
- f) Progesterone
- g) Both
- h) None

21.(v)Test for Tubul patency is

- e) Basal body temperature measurement
- f) Hysterolaparascopy
- g) Fern test
- h) Spimbarkeit test

22.(i)Contraceptive method with the highest failure rate is

- e) Combined hormonal pills
- f) Tubectomy
- g) Barrier method
- h) Intra uterine devices

22.(ii)Which is the first sign of puberty in a girl?

- e) Thelarche
- f) Menarche
- g) Adrenarche
- h) Pubarche

22.(iii)Screening test for carcinoma cervix is:

- e) Visual inspection of cervix with acetic acid
- f) Conization of cervix
- g) Thermal ablation of cervix
- h) Trachelectomy

22.(iv)Birth trauma is a risk factor for:

- e) Endometriosis
- f) Prolapse
- g) Abortion
- h) PID

22.(v) Which of the following are effects of increased levels of oestrogen in the follicular phase of the menstrual cycle?

- e) Hair thinning
- f) Thickening of cervical mucous
- g) Thinning of cervical mucous
- h) Thickening of the endometrium

Sri Siddhartha Academy of Higher Education – Sample question paper

MBBS / PHASE III / PART II DEGREE EXAMINATION

MAX.MARKS: 100 MARKS

OBSTETRICS & GYNAECOLOGY – PAPER -2

LONG ESSAY

2X10=20 marks

1. A 54 year old woman presents with bleeding per vagina after 2 years of cessation of regular menstruation. She is diabetic and hypertensive on treatment since 4 years with a BMI of 30.

- What is the most likely diagnosis?
(2 marks)
- What is the differential diagnosis of postmenopausal bleeding?
(2 marks)
- Outline the investigations & treatment of the case
(3+3marks)

2. A couple married for 2 yrs, unable to conceive despite staying together.

- What are the probable causes?
(3 marks)
- How will you investigate the couple?
(3 marks)
- Wife has irregular cycles with BMI of 32 and coarse facial hair. Outline the treatment plan for her. (4 marks)

SHORT ESSAYS

8X5=40 MARKS

3. A parous woman of age 42 yrs is having regular cycles is experiencing an increase in the amount and duration of bleeding. She also complains of easy fatigability and weakness. Enumerate the differential diagnosis and how do you work up this case? (2+3 marks)
4. 48yr old multiparous lady is having irregular menstrual periods since one year. She complains of several bouts of hot flushes and night sweats since 6 months. What is your diagnosis and treatment? (1+4 marks)
5. 65 yr old woman, P6L6, complains of something coming out through the vagina since 4 yrs. Since past 3 months she is complaining of occasional bloody discharge and development of a wound over the exposed part. What is the diagnosis. How do you manage the case? (2+3 marks)
6. Discuss the Clinical features and management of genital tuberculosis. (2+3 marks)
7. Indications & contra indications of combined oral contraceptive pills. (3+2 marks)
8. Describe causes, clinical features and enumerate the surgeries for Vesico-vaginal fistula. (2+3 marks)
9. Indications for Endoscopy in gynecology. Enumerate the complications of Hysteroscopy. (2+3 marks)
10. Discuss the diagnosis and treatment of Vaginal Trichomoniasis. (3+2 marks)

SHORT ANSWERS

10X3=30MARKS

11. Describe the course and branches of internal iliac artery. (1+2 marks)
12. Indications and dosage of Methotrexate in gynecology (2+1 marks)
13. Describe the American fertility society classification of uterine anomalies.
14. Indications & complications of cervical biopsy. (1+2 marks)
15. Bethesda classification of Pap smear.
16. Discuss the complications of Radiotherapy in gynecology.
17. What are the causes of precocious puberty?
18. What are the hormonal methods of treatment of endometriosis
19. PALM – COEIN classification.
20. What is Pearl index?

**SELECT THE SINGLE BEST RESPONSE TO THE MULTIPLE CHOICE QUESTIONS
GIVEN BELOW. 10X1=10 marks**

21. Increase in menstrual bleeding in amount of bleeding or duration with regular cycles is called;
- i) Metrorrhagia
 - j) Metropathia hemorrhagica
 - k) Menorrhagia
 - l) Polymenorrhoea
22. A 21 year old P1L1 has delivered 45 days back. She is not breastfeeding her infant. She has tested HIV positive during her antenatal checkup. She wants a temporary method of contraception.
- What are her options?
- i) Combined oral contraceptive pills
 - j) Copper Intra uterine device
 - k) LNG implant
 - l) LNG Intrauterine device
23. The Length of fallopian tube is:
- i) 8-12cm
 - j) 12-15cm
 - k) 15-18cm
 - l) 18-20cm
24. The Corpus luteum secretes:
- i) Estrogens
 - j) Progesterone
 - k) Both
 - l) None
25. Test for Tubal patency is
- i) Basal body temperature measurement
 - j) Hysteroscopy
 - k) Fern test
 - l) Spinnbarkeit test
26. Contraceptive method with the highest failure rate is
- i) Combined hormonal pills
 - j) Tubectomy
 - k) Barrier method
 - l) Intra uterine devices

27. Which is the first sign of puberty in a girl?

- i) Thelarche
- j) Menarche
- k) Adrenarche
- l) Pubarche

28. Screening test for carcinoma cervix is:

- i) Visual inspection of cervix with acetic acid
- j) Conization of cervix
- k) Thermal ablation of cervix
- l) Trachelectomy

29. Birth trauma is a risk factor for:

- i) Endometriosis
- j) Prolapse
- k) Abortion
- l) PID

30. Which of the following are effects of increased levels of oestrogen in the follicular phase of the menstrual cycle?

- i) Hair thinning
- j) Thickening of cervical mucous
- k) Thinning of cervical mucous
- l) Thickening of the endometrium

PRACTICAL/CLINICAL EXAMINATION

Principles to be adhered to in practical/clinical examination

- The practical/ clinical examination should include assessment in psychomotor and affective domain.
- **Assessment of clinical and procedural skills should be based on direct observations by the examiners.**
- AETCOM competencies should also be assessed.
- **Practical tests should not become simply tests of knowledge. Avoid making assessment mainly targeted to knowledge domain only.**

Examples

1. **Asking a learner in a room away from actual patient, “how history was taken” is to be avoided. Instead, learner should be observed while he/she is taking history.**
2. **Asking a learner in a room away from the actual patient “Tell us how the obstetric abdominal examination is done” is to be avoided. Instead, learner should be observed when the examination is being performed, and evaluated objectively using checklists/ other suitable scales”**

Tools to be used in practical examination

It is suggested that practical examination should include a combination of the following tools

- Clinical examination using long case – one each in Obstetrics and Gynecology, 80marks each
- Objective Structured Clinical Examination (OSCE) – Observed 4 stations 10marks each

SCHEMA FOR PRACTICAL EXAMINATION (200 MARKS)

| | Topic header | Obstetrics | Gynaecology |
|-----------|--|------------|-------------|
| I | Eliciting history (1 Obs / 1 Gyn) | 25 | 25 |
| II | Performing examination (1 Obs/ 1 Gyn) | 25 | 25 |

| | | | |
|------------|---|---|-----------|
| III | Discussion (1 Obs / 1 Gyn) of management | 30 | 30 |
| IV | 4 Viva voce stations with examiner presence (10 marks eachx4=40) | Station-1: Dummy, pelvis and fetal skull. Station-2: Instruments Station-3: Specimens Station-4: Drugs and contraception | |

SAMPLE PRACTICAL EXAMINATION FORMAT

I. ELICITING HISTORY

A. ELICITING HISTORY IN AN OBSTETRIC PATIENT [15 MARKS]

Role of examiner: To create a simulated patient (For example, an intern or a PG or an SR may be trained to become a simulated patient – as much details as possible to be provided).

Role of student: To elicit detailed obstetric history from a provided simulated patient with all elements

Role of examiner: To **observe and assess the student while student is eliciting history** from the simulated patient and observe regarding arrival at a suitable clinical

interpretation/ conclusion based on the history elicited. Checklist for clear schema of marking may be developed locally.

Time duration is around 5-7 minutes.

B. ELICITING HISTORY IN A GYNECOLOGICAL PATIENT [15 MARKS]

Role of examiner: To create a simulated patient (For example, an intern or a PG or an SR may be trained to become a simulated patient – as much details as possible to be provided).

Role of student: To elicit detailed gynaecological history from a provided simulated patient with all elements

Role of examiner: To **observe and assess the student while student is eliciting history** from the simulated patient and observe regarding arrival at a suitable clinical interpretation/ conclusion based on the history elicited. Checklist for clear schema of marking may be developed locally.

Time duration is around 5-7 minutes.

II. EXAMINATION

A. OBSTETRIC EXAMINATION ASSESSMENT (25 marks)

Role of the examiner: A gravid / puerperal woman (with any suitable diagnosis, preferable late 2nd or 3rd trimester) should be provided for examination by the student.

The brief history of the obstetric patient should be provided to the student.

Student should be allowed to introduce himself/herself and gain confidence of the patient.

Role of the student:

Demonstration of **general physical examination should be observed by the examiner** using a locally developed checklist. (Annexure) [5 marks]

Demonstration of **abdominal obstetric examination should be observed by the examiner** using a locally developed checklist. (Annexure) [10 marks]

Further **discussion** based on the examination findings should be done with focus on the techniques and **nuances of performance on examination** rather than theoretical perspectives on management. [10 marks]

Time duration is around 5-7 minutes.

B. GYNECOLOGY EXAMINATION ASSESSMENT (25 MARKS)

Role of the examiner: A woman with gynaecological pathology should be provided for examination by the student.

The brief history of the gynaecological patient should be provided to the student.

Student should be allowed to introduce himself/herself and gain confidence of the patient.

Role of the student:

Demonstration of general **physical examination should be observed by the examiner** using a locally developed checklist. [5 marks]

Demonstration of abdominal **examination should be observed by the examiner** using a locally developed checklist. [10 marks]

Local examination (such as perineal / speculum and vaginal examination) findings should be provided by the examiner to the student.

Further **discussion based on the examination findings** should be done with focus on the techniques and nuances of **performance on examination** rather than theoretical perspectives on management. [10 marks]

Time duration is around 5-7 minutes.

Discussion on the management of the cases presented

Sri Siddhartha Academy of Higher Education, Tumkur



UNDERGRADUATE LOGBOOK

DEPARTMENT OF OBSTETRICS & GYNAECOLOGY

Purpose of this logbook

The log book is a verified record of the progression of the learner documenting the

Acquisition of there quisite knowledge, skills, attitude and competencies. It is a record of the academic/co-curricular activities of the designated student, who would be responsible for maintaining his/her logbook.

Entries in the logbook will reflect the activities undertaken in the department and has to be scrutinized by the head of the concerned department.

The logbook is a record of various activities by the student like:

- ✓ Overall participation & performance
- ✓ attendance
- ✓ participation in sessions
- ✓ record of completion of pre-determined activities
- ✓ acquisition of selected competencies

The logbook is the record of work done by the candidate in the department and shall be verified by the college before submitting the application of the students for the university examination.

The purposes of this logbook are:

- f. To orient the students to holistic patient management by completing the case record, observing and recording procedures and discussing patient treatment in the therapeutics section.
- g. To facilitate the student's learning process, document the learning process and assist in student assessment
- h. To keep a record of the student's progressing development of the desired skills and attitudes
- i. To ensure that the time spent in the department is well utilized
- j. To form a basis for continual assessment of the student

This log book is a documentation of cases seen, clerked and witnessed by you during your posting in OBG .It is also a record of various seminars, case-based learning, simulation exercises and other academic activities that the learner has been a part of during course. Though efforts are made to cover as much as possible, in no way should this be considered the syllabus.

Please carry this book whenever you attend the non-lecture academic activities of the department and get it duly signed by the concerned staff at the end of the academic activity.

We expect discipline, honesty, sincerity and punctuality.

The responsibility of completing the logbook and getting it verified/assessed by the faculty lies with the student. The logbook must be carried by the student as per the given instructions.

General Instructions

11. It is expected that the students will adhere to the highest ethical standards and Professionalism.
12. Shall maintain punctuality in respect to arrival and completion of the assigned work
13. Maintain a cordial relationship with peers, unit staff and hospital staff
14. Not indulge in any act which would bring disrepute to the institution.
15. You should wear a clean apron and follow the dress regulations as laid down by the college and maintain proper hygiene with wearing respective identification badge while in college and hospital.
16. You should carry the following with you for the clinics
 - a. Clinical textbook
 - b. Stethoscope
 - c. Clinical kit for examination
17. Respect the patient as an individual and recognize that she also has rights.
18. Cases that are discussed only have to be documented and not the dummy cases.
- 19. Loss of this logbook at any time may affect the formative assessment results and Impair the student appearing in the summative assessment.**
- 20. Student is solely responsible for maintaining the Logbook and the records. If the student loses the logbook, he/she would be withheld from appearing for the University examination unless Suitable back up proof is provided.**

Objectives of learning in OBG Department:

A. KNOWLEDGE

At the end of course, the student should be able to:

1. Outline the anatomy, Physiology and pathophysiology of the reproductive system and the common conditions affecting it.
2. Detect normal pregnancy, labour, puerperium and manage the problems likely to be encounter therein.
3. List the leading causes of maternal and perinatal morbidity and mortality.
4. Understand the principles of contraception and various techniques employed, methods of medical termination of pregnancy, sterilization and their complications.
5. Identify the use, abuse and side effects of drugs in pregnancy, Pre-menopausal and post menopausal periods.
6. Describe the national programme of maternal and child health and family welfare and their implementation at various levels.
7. Identify the common gynecological diseases and describe principles of their management.
8. State the indications, techniques and complications of surgeries like Caesarian section, laprotomy, abdominal and vaginal hysterectomy , Fothergill's operation and vacuum aspiration for MTP

B. SKILLS:

At the end of course, the student should be able to:

1. Examine a pregnant woman: recognize high risk factors.
2. Conduct a normal delivery, recognize complications and early referral. Provide post-natal care.
3. Resuscitate the newborn and recognize congenital anomalies.
4. Advise a couple on the use of various available contraceptive devices and assist in insertion and removal of intra uterine contraceptive devices
5. Perform pelvic examination, diagnose and manage common gynaecological problems including early detection of genital malignancies
6. Make a vaginal cytological smear.
7. Interpretation of data of investigations like biochemical, histopathological, radiological, ultrasound etc.

| | |
|--------------------------------|--|
| Name of the student | |
| Roll No | |
| University Registration Number | |
| Batch | |
| Contact No | |
| E mail Id | |

| | |
|---|--|
| Guardian/Parent Name Contact Number | |
| Signature of the student | |
| Signature of the HOD | |

LOGBOOK CERTIFICATE

This is to certify that the candidate

Reg No..... has satisfactorily completed all requirements mentioned in this Logbook for OBG including related AETCOM modules as per the Competency-Based Undergraduate Medical Education Curriculum, Graduate Medical Regulation 2019 during the period fromto

He/ She is eligible to appear for the summative (University) assessment.

Head of Department:

Name:

Signature:

Faculty Name:

Signature:

Date:

INDEX

| | Topic | Page No. |
|------------|---|-----------------|
| 1. | Attendance extract | 8 |
| 2. | Overall Assessment | 9-11 |
| 3. | Clinical posting 1 | 12-26 |
| 4. | Clinical posting 2 | 27-34 |
| 5. | Clinical posting 3 | 35-46 |
| 6. | Clinical posting 4 | 47-56 |
| 7. | Labour Room Procedures | 57-59 |
| 8. | Certifiable skill | 60 |
| 9. | Check lists for skills assessments | 61-67 |
| 10. | AETCOM modules | 68-69 |
| 11. | Integrated sessions | 70 |
| 12. | Self- Directed Learning sessions | 71 |
| 13. | Seminars presented | 72 |
| 14. | Research projects/publications | 72 |

| | | |
|------------|--|-----------|
| 15. | Co - Curricular Activities (Quiz, Poster, Debate, Essay, Skits) | 73 |
| 16. | CME/ Conference / Workshop | 74 |
| 17. | Awards / recognition | 74 |

ATTENDANCE EXTRACT

Theory classes

| Professional Year | Number attended | Number conducted | Percentage of Attendance | Signature of HOD |
|----------------------------------|--------------------|---------------------|--------------------------------|------------------|
| Second Profession al | | | | |
| Third Professional Part I | | | | |
| Third Professional Part II | | | | |

Bedside clinics:

| Professional Year | Unit From (date) To (date) | Number attended | Number conducted | Percentage of Attendance | Signature of Unit Head | Signature of HOD |
|---|----------------------------|-----------------|------------------|--------------------------|------------------------|------------------|
| Second Professional year Posting 1 | | | | | | |
| Third Professional year Part I Posting 2 | | | | | | |
| Third Professional Part II Posting 3 | | | | | | |
| Third Professional year Part II Posting 4 | | | | | | |

Note:

Every candidate should have **attendance not less than 75% of the total classes conducted in theory which includes didactic lectures and self-directed learning and not less than 80% of the total classes conducted in practical which includes small group teaching, tutorials, integrated learning and practical sessions** in each calendar year calculated from the date of commencement of the term to the last working day in each of the subjects prescribed to be eligible to appear for the university examination.

SUMMARY OF INTERNAL ASSESSMENT (IA)

| <i>Sl. No.</i> | <i>Internal Assessment</i> | <i>Date of Assessment</i> | <i>Total marks</i> | | <i>Marks scored</i> | | <i>Signature of student with date</i> | <i>Signature of teacher with date</i> |
|----------------|----------------------------|---------------------------|--------------------|------------------|---------------------|------------------|---------------------------------------|---------------------------------------|
| | | | <i>Theory</i> | <i>Practical</i> | <i>Theory</i> | <i>Practical</i> | | |
| 1 | First | | | | | | | |
| 2 | Second | | | | | | | |

| | | | | | | | | |
|---|----------|--|--|--|--|--|--|--|
| 3 | Third | | | | | | | |
| 4 | Remedial | | | | | | | |

Total marks obtained on a total of 200 is -----

A student will be permitted to appear for final university exams only if he/she obtains more than 100 marks in the assessments.

Final remarks if any -

Note: A candidate who has not secured requisite aggregate in the internal assessment may be subjected to remedial assessment by the institution. If he/she successfully completes the same, he/she is eligible to appear for University Examinations. The remedial assessment shall be completed before submitting the internal assessment marks online to the University.

Formative Assessment at the end of each posting:

| MCQ marks obtained | Second Professional year | Third Professional year Part I | Third Professional year Part II |
|--------------------|--------------------------|--------------------------------|---------------------------------|
| | | | |

| | | 1 Posting | 2 Posting | 3 Posting | 4 Posting |
|---|-------------------|-----------|-----------|-----------|-----------|
| | | Date | Date | Date | Date |
| Academic Performance (Case Presentation & Viva Voce) (25+10) | | | | | |
| Marks Obtained | | | | | |
| Feedback Provided | Positive | | | | |
| | Could be improved | | | | |
| Professionalism | | | | | |
| Timely submission of record Book (5) | | | | | |
| Behaves respectfully with peers and teachers (5) | | | | | |
| Grooming and adherence to Dress code (5) | | | | | |
| Total (out of 35+15) | | | | | |
| Signature of Student | | | | | |
| Signature of Teacher | | | | | |

Guidelines for scoring (to be shown to the student and discussed with them)

Attendance – 95 -100% - 5 ; 90-94%-4;85-89%-3 80-84%-2;> 80%-1

Timely submission of record – Always submits the record on time – 5; Often submits the record on time -4; Sometimes submits the record on time -3 ; Rarely submits the record on time – 2 ; Never submits the record on time -1

Behaves respectfully with peers and teachers - Always speaks politely and demonstrates the appropriate body language with peers and teachers -5; Often speaks politely and demonstrates the appropriate body language with peers and teachers -4; Sometimes speaks politely and demonstrates the appropriate body language with peers and teachers – 3 ; Rarely speaks politely and demonstrates the appropriate body language with peers and teachers – 2; Never speaks politely and demonstrates the appropriate body language with peers and teachers -1

| |
|-----------------------------|
| Clinical posting 1 |
| Duration 4 weeks |
| Date of posting From |
| To |
| Unit |

Competency to be achieved

- 1) Obstetric History taking & examination
- 2) Gynaecological History taking & examination
- 3) Assessment of postnatal mother
- 4) Monitoring of labour
- 5) Active management of 3rd stage of labour

Clinical Posting 1

| SLNO | ACTIVITY |
|------|--|
| 1. | Obstetric history taking(OG.8.2) Determine gestational age, EDD and obstetric formula(OG35.5) |
| 2. | Obstetric examination(OG 8.3) |
| 3. | Gynec history taking(OG 24.1) |
| 4. | Gynec examination (OG 24.1) |
| 5. | Monitoring of labour(OG 13.1) |
| 6. | Active Management of third stage of labour(OG 16.1) |
| 7. | History taking and examination of postnatal mother(OG 19.1) |

| Competen cy # addressed | Name of Activity | Date completed dd-mm- yyyy | Attempt at activity First or Only (F) Repeat (R) Remedial (Re) | Rating Below (B) expectations Meets(M) expectations Exceeds(E) expectations | Decision of faculty Completed (C) Repeat(R) Remedial(Re) | Initial of faculty and date | Feedba ck Receive d |
|--|--|---|---|--|--|--|--|
| OG 8.2 OG35.5 | Obstetric history taking Determine gestational age, EDD and obstetric formula | | | | | | Initial of learner |
| OG 8.3 | Obstetrics examination | | | | | | Initial of learner |

Learner doctor

Posting 1

A. Competency

1. History

General

| | | | | | | | |
|---------|--|--|--|--|--|--|-----------------------------------|
| OG 24.1 | Gynae history | | | | | | Initial of learner |
| OG 13.1 | Monitoring of Labou r | | | | | | |
| OG 16.1 | Active management 3 rd stage of labour | | | | | | |
| OG 19.1 | History taking and examination of postnatal mother | | | | | | |

method 1

to be achieved-
taking

2. Examination -
physical
examination
- Systemic
examination
- Obstetrics
examination

3. Communication skills-

One antenatal patient will be allotted to the student. The student is expected to take the history of the patient and examine her. Case record has to be written and daily follow-up till discharge has to be entered. The students will communicate with the patient and doctor about the patient care.

A brief summary is to be written at the time of patient discharge and discuss the case with the teacher.

Learner doctor method

Learner doctor method

Learner doctor method

Learner doctor method

Reflection on the learner doctor method of learning;

What happened?

So what ?

What next?

Signature of faculty :Date :

Learner doctor method 2

B. Competency to be achieved

1. History taking

- Examination - General physical examination
- Systemic examination
 - Gynaecological examination

One patient will be allotted to the student. The student is expected to take the history of the patient and examine her. Case record has to be written and daily follow-up till discharge has to be entered. The students will communicate with the patient and doctor about the patient care.

A brief summary is to be written at the time of patient discharge and discuss the case with the teacher.

Learner doctor method

Learner doctor method

Learner doctor method

Learner doctor method

Reflection on the learner doctor method of learning;

What happened?

So what ?

What next?

| |
|---|
| Posting 2 |
| Duration 8 weeks |
| Date of posting From To |
| Unit : |

Signature

of faculty: Date :

Competency to be achieved

- 1) Diagnosis of early pregnancy
- 2) Antenatal care and advice
- 3) Identify the high risk factors in pregnancy
- 4) Methods of Induction of labour
- 5) Develop a partogram
- 6) Postnatal care & Advice
- 7) Pre & Post operative care

Clinical posting 2

| SLNO | ACTIVITY (Case Presentation) |
|-------------|--|
| 1. | Diagnosis of early pregnancy (OG 6.1) |
| 2. | Antenatal care and advice (OG 8.1,8.6) |

| | |
|----|--|
| 3. | Diagnosis of high risk (OG 8.1) |
| 4. | Partogram (OG 13.1) |
| 5. | Postnatal care and advice (OG 19.1) |
| 6. | Pre and postoperative care including consent for surgery (OG 34.4, 35.7) |

| Competency Addressed | Name of Activity | Date completed dd-mm-yyyy | Attempt at activity First or Only (F) Repeat (R) Remedial (Re) | Rating Below (B) expectations Meets(M) expectations Exceeds(E) expectations | Decision of faculty Completed (C) Repeat(R) Remedial(Re) | Initial of faculty and date | Feedback Received |
|----------------------|------------------|------------------------------|---|--|---|-----------------------------|-------------------|
| | | | | | | | |

| | | | | | | | |
|------|------------------------------|--|--|--|--|--|----------------------------|
| | Diagnosis of early pregnancy | | | | | | Initial of students |
| 1, 5 | Antenatal care and advice | | | | | | Initial of students |
| 1 | Diagnosis of high risk | | | | | | Initial of students |
| 1.1 | Partogram | | | | | | Initial of students |
| 1.1 | Postnatal care and advice | | | | | | Initial of students |

| | | | | | | | |
|-------------|--|--|--|--|--|--|----------------------------|
| 4.4, 4.7 | Pre and postoperative care including consent for surgery | | | | | | Initial of students |
|-------------|--|--|--|--|--|--|----------------------------|

Learner doctor method.

Posting 2

Competency to be achieved

1. History taking
2. Examination - General physical examination
 - Systemic examination
 - Obstetrics examination
3. Identifying High Risk factors
4. Communication & patients education
5. Selection of appropriate investigation
6. Approach towards the diagnosis

One patient will be allotted to the student. The student is expected to take the history of the patient and examine her. Case record has to be written and daily follow-up till discharge has to be entered. The students will communicate with the patient and doctor about the patient health.

A brief summary is to be written at the time of patient discharge and discuss the case with the teacher.

Learner doctor method.

Learner doctor method.

Learner doctor method.

Learner doctor method

Reflection on the learner doctor method of learning :

What happened?

So what ?

What next?

Signature of the faculty:

Date:

Competency to be achieved

- 1) Obstetric History taking and complete examination
- 2) Gynaecological History taking and complete
- 3) Management of medical and obstetric disorders
- 4) Management of Gynaecological disorder

| |
|---|
| Posting 3 |
| Duration 8 weeks |
| Date of posting From To |
| Unit : |

examination
in pregnancy

Clinical Posting 3

| SLNO | ACTIVITY (Case Presentation) |
|------|---|
| 1. | Describe clinical features; diagnosis and investigations, complications, principles of management of multiple pregnancies (OG11.1) |
| 2. | Define, classify and describe the aetiology, clinical features, ultrasonography, differential diagnosis and management of antepartum haemorrhage in pregnancy (OG10.1) |
| 3. | Define, classify and describe the early detection, investigations; principles of management of hypertensive disorders of pregnancy and eclampsia , complications of eclampsia.(OG12.1) |
| 4. | Define, classify and describe the diagnosis, investigations, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of anemia in pregnancy . (OG12.2) |
| 5. | Define, classify and describe diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of diabetes in pregnancy (OG12.3) |

| | |
|-----|--|
| 6. | Define, classify and describe the etiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of heart diseases in pregnancy (OG12.4) |
| 7. | Describe the mechanism, prophylaxis, fetal complications, diagnosis and management of isoimmunization in pregnancy (OG12.8) |
| 8. | Describe and discuss causes, clinical features, diagnosis, investigations; monitoring of fetal well-being, including ultrasound and fetal Doppler; principles of management; prevention and counselling in intrauterine growth retardation (OG16.3) |
| 9. | Define, classify and discuss abnormal uterine bleeding , its aetiology, clinical features, investigations, diagnosis and management (OG24.1) |
| 10. | Describe and discuss the clinical features; differential diagnosis; investigations; principles of management, complications of fibroid uterus (OG29.1) |
| 11. | Describe and discuss the etiology, classification, clinical features, diagnosis, investigations, principles of management and preventive aspects of prolapse of uterus (OG31.1) |

| Competency Addressed | Name of Activity | Date completed dd-mm-yyyy | Attempt at activity First or Only (F) Repeat (R) Remedial (Re) | Rating Below (B) expectations Meets(M) expectations Exceeds(E) expectations | Decision of faculty Completed (C) Repeat(R) Remedial(Re) | Initial of faculty and date | Feedback Received |
|----------------------|--|------------------------------|---|--|---|-----------------------------|----------------------------|
| .1 | Describe the clinical features; diagnosis and investigations, complications, principles of management of multiple pregnancies | | | | | | Initial of students |
| .1 | Define, classify and describe the aetiology, clinical features, ultrasonography, differential diagnosis and management of antepartum haemorrhage in pregnancy | | | | | | |

| | | | | | | | |
|-----------------------------|--|--------------------------------------|--|---|--|------------------------------------|----------------------------|
| | | | | | | | Initial of students |
| 2.1 | Define, classify and describe the early detection, investigations; principles of management of hypertensive disorders of pregnancy and eclampsia , complications of eclampsia | | | | | | Initial of students |
| Competency Addressed | Name of Activity | Date completed dd-mm-yyyy | Attempt at activity First or Only (F) Repeat (R) Remedial (Re) | Rating Below (B) expectations Meets(M) expectations Exceeds(E) expectations | Decision of faculty Completed (C) Repeat(R) Remedial(Re) | Initial of faculty and date | Feedback Received |

| | | | | | | | |
|-----|--|--|--|--|--|--|----------------------------|
| ..2 | Define, classify and describe the diagnosis, investigations, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of anemia in pregnancy | | | | | | Initial of students |
| .3 | Define, classify and describe the diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of diabetes in pregnancy | | | | | | Initial of students |

| | | | | | | | |
|----|--|--|--|--|--|--|----------------------------|
| .4 | Define, classify and describe the etiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of heart diseases in pregnancy | | | | | | Initial of students |
|----|--|--|--|--|--|--|----------------------------|

| Competency Addressed | Name of Activity | Date completed dd-mm-yyyy | Attempt at activity First or Only (F) Repeat (R) Remedial (Re) | Rating Below (B) expectations Meets(M) expectations Exceeds(E) expectations | Decision of faculty Completed (C) Repeat(R) Remedial(Re) | Initial of faculty and date | Feedback Received |
|-----------------------------|-------------------------|--------------------------------------|--|---|--|------------------------------------|--------------------------|
|-----------------------------|-------------------------|--------------------------------------|--|---|--|------------------------------------|--------------------------|

| | | | | | | | |
|----|---|--|--|--|--|--|----------------------------|
| .8 | Describe the mechanism, prophylaxis, fetal complications, diagnosis and management of isoimmunization in pregnancy | | | | | | Initial of students |
| .3 | Describe and discuss causes, clinical features, diagnosis, investigations; monitoring of fetal well-being, including ultrasound and fetal Doppler; principles of management; prevention and counselling in intrauterine growth retardation | | | | | | Initial of students |
| .1 | Define, classify and discuss abnormal uterine bleeding , its aetiology, clinical features, investigations, | | | | | | Initial of students |

| | | | | | | | |
|--|--------------------------|--|--|--|--|--|--|
| | diagnosis and management | | | | | | |
|--|--------------------------|--|--|--|--|--|--|

| Competency Addressed | Name of Activity | Date completed dd-mm-yyyy | Attempt at activity First or Only (F) Repeat (R) Remedial (Re) | Rating Below (B) expectations Meets(M) expectations Exceeds(E) expectations | Decision of faculty Completed (C) Repeat(R) Remedial(Re) | Initial of faculty and date | Feedback Received |
|----------------------|------------------|------------------------------|---|--|---|-----------------------------|-------------------|
| | | | | | | | |

| | | | | | | | |
|----|---|--|--|--|--|--|----------------------------|
| .1 | Describe and discuss the clinical features; differential diagnosis; investigations; principles of management, complications of fibroid uterus | | | | | | Initial of students |
| .1 | Describe and discuss the etiology, classification, clinical features, diagnosis, investigations, principles of management and preventive aspects of prolapse of uterus | | | | | | Initial of students |

Learner doctor method.

Posting 3

Competency to be achieved

1. History taking
2. Examination - General physical examination
 - Systemic examination
 - Obstetrics examination
3. Identifying High Risk factors
4. Communication & patients education
5. Selection of appropriate investigation
6. Approach towards the diagnosis
7. Plan of Management.

One patient will be allotted to the student. The student is expected to take the history of the patient and examine her. Case record has to be written and daily follow-up till discharge has to be entered. The students will communicate with the patient and doctor, about the patient care & plan of management

A brief summary is to be written at the time of patient discharge and discuss the case with the teacher.

Learner doctor method.

Learner doctor method.

Learner doctor method.

Learner doctor method

Reflection on the learner doctor method of learning :

What happened?

So what ?

What next?

Signature of the faculty:

Date:

| |
|---|
| Posting 4 |
| Duration 4 weeks |
| Date of posting From To |
| Unit : |

Competency to be achieved

- 1) Gynaecological history taking and complete examination
- 2) Early detection of genital malignancies
- 3) Document and maintain a case record
- 4) Write a discharge summary for the given case
- 5) Write a Referral note for the given case
- 6) Take an informed consent for the given procedure

Clinical posting 4

| SLNO | ACTIVITY (Case Presentation) |
|------|--|
| 1. | Classify, describe and discuss the etiology, clinical features, differential diagnosis, investigations and staging of cervical cancer (OG33.1) |
| 2. | Describe and discuss aetiology, staging clinical features, differential diagnosis, investigations, staging laparotomy and principles of management of endometrial cancer (OG34.1) |
| 3. | Describe and discuss the etiology, classification, staging of ovarian cancer , clinical features, differential diagnosis, investigations, principal of management including staging laparotomy (OG34.2) |
| 4. | Obtain a logical sequence of history, and perform a humane and thorough clinical examination, excluding internal examinations (perrectal and per-vaginal) (OG35.1) |
| 5. | Arrive at a logical provisional diagnosis after examination. (OG35.2) |
| 6. | Write a complete case record with all necessary details (OG35.8) |
| 7. | Write a proper discharge summary with all relevant information (OG35.9) |

| | |
|----|---|
| 8. | Write a proper referral note to secondary or tertiary centres or to other physicians with all necessary details (OG35.10) |
| 9. | Take an informed consent from the patient and family for Staging laprotomy (OG34.4, OG35.7) |

| Competency Addressed | Name of Activity | Date completed dd-mm-yyyy | Attempt at activity First or Only (F) Repeat (R) Remedial (Re) | Rating Below (B) expectations Meets(M) expectations Exceeds(E) expectations | Decision of faculty Completed (C) Repeat(R) Remedial(Re) | Initial of faculty and date | Feedback Received |
|----------------------|------------------|------------------------------|---|---|---|-----------------------------|-------------------|
| | | | | | | | |

| | | | | | | | |
|-----|--|--|--|--|--|--|----------------------------|
| 1.1 | Classify, describe and discuss the etiology, , clinical features, differential diagnosis, investigations and staging of cervical cancer | | | | | | Initial of students |
| 1.1 | Describe and discuss aetiology,staging clinical features, differential diagnosis, investigations, staging laparotomy and principles of management of endometrial cancer | | | | | | Initial of students |
| 1.2 | Describe and discuss the etiology, classification, staging of ovarian cancer , clinical features, differential diagnosis, | | | | | | |

| | | | | | | | |
|---------------------------------|--|---|---|--|---|--|--------------------------------|
| | investigations, principal of management including staging laparotomy | | | | | | Initial of students |
| Competency Addressed | Name of Activity | Date completed dd-mm- yyyy | Attempt at activity First or Only (F) Repeat (R) Remedial (Re) | Rating Below (B) expectations Meets(M) expectations Exceeds(E) expectations | Decision of faculty Completed (C) Repeat(R) Remedial(Re) | Initial of faculty and date | Feedback Received |
| 5.1 | Obtain a logical sequence of history, and perform a humane and thorough clinical examination, excluding internal examinations (perrectal and per-vaginal | | | | | | Initial of students |

| | | | | | | | |
|----|--|--|--|--|--|--|---------------------|
| .2 | Arrive at a logical provisional diagnosis after examination. | | | | | | Initial of students |
| .8 | Write a complete case record with all necessary details | | | | | | Initial of students |

| Competency Addressed | Name of Activity | Date completed dd-mm-yyyy | Attempt at activity First or Only (F) Repeat (R) Remedial (Re) | Rating Below (B) expectations Meets(M) expectations Exceeds(E) expectations | Decision of faculty Completed (C) Repeat(R) Remedial(Re) | Initial of faculty and date | Feedback Received |
|----------------------|---|------------------------------|---|--|---|-----------------------------|---------------------|
| .9 | Write a proper discharge summary with all relevant information | | | | | | Initial of students |
| .10 | Write a proper referral note to secondary or tertiary centres or to other physicians with all necessary details | | | | | | Initial of students |

| | | | | | | | |
|------------|--|--|--|--|--|--|----------------------------|
| .4, i.7 | Take an informed consent from the patient and family for Staging laprotomy | | | | | | Initial of students |
|------------|--|--|--|--|--|--|----------------------------|

Learner doctor method.

Posting 4

Competency to be achieved

1. Arriving at diagnosis
2. Planning management
3. Taking consent from the patient for the procedure
4. Assessing post procedure complication
5. Writing discharge summary
6. Advise on discharge

One patient will be allotted to the student. The student is expected to take the history of the patient and examine her. Case record has to be written and daily follow-up till discharge has to be entered. The students will communicate with the patient and doctor about patient care and plan of management.

A brief summary is to be written at the time of patient discharge and discuss the case with the teacher.

Learner doctor method.

Learner doctor method.

Learner doctor method

Reflection on the learner doctor method of learning :

What happened?

So what ?

What next?

Signature of the faculty:

Date:

LABOUR ROOM PROCEDURES

| SLNO | ACTIVITY |
|------|--|
| 1. | Obtain a logical sequence of history, and perform a humane and thorough clinical examination, excluding internal examinations (perrectal and per-vaginal) (OG35.1) |
| 2. | Arrive at a logical provisional diagnosis after examination. (OG35.2) |
| 3. | mechanism of labor in occipito-anterior presentation (OG13.1) |

| | |
|----|---|
| 4. | monitoring of labor including partogram (OG13.1) |
| 5. | Induction of Labour |
| 6. | acceleration of labor(OG13.1) |
| 7. | Amniotomy (OG 13.3) |
| 8. | Enumerate and describe the indications, steps and complications of Caesarean Section (OG15.1) |
| 9. | Observe/Assist in operative obstetrics case – Forceps/ vacuum extraction (OG15.2) |
| 10 | Describe and discuss the classification; diagnosis; management of abnormal labor (OG 14.4) |

| Competency # addressed | Name of Activity | Date completed dd-mm- yyyy | Observed | Assisted | Initial of faculty and date | Feedback Received |
|-----------------------------------|--|---|-----------------|-----------------|--|--------------------------------|
| OG35.1 | Obtain a logical sequence of history, and perform a humane and thorough clinical examination, excluding internal examinations (perrectal and per-vaginal | | | | | Initial of students |

| | | | | | | | |
|-------------------------------|--|----------------------------------|-----------------|-----------------|------------------------------------|--------------------------|----------------------------|
| OG35.2 | Arrive at a logical provisional diagnosis after examination. | | | | | | Initial of students |
| OG13.1 | mechanism of labor in occipito-anterior presentation | | | | | | Initial of students |
| Competency # addressed | Name of Activity | Date completed dd-mm-yyyy | Observed | Assisted | Initial of faculty and date | Feedback Received | |
| OG13.1 | monitoring of labor including partogram | | | | | | Initial of students |

Certifiable Skills

Name of Activity:
of a normal vaginal

| | | | | | | |
|---------|---|--|--|--|--|----------------------------|
| OG13.1 | Induction of labour | | | | | Initial of students |
| OG13.1 | acceleration of labor | | | | | Initial of students |
| OG 13.3 | Amniotomy | | | | | Initial of students |
| OG15.1 | Caesarean section, | | | | | Initial of students |
| OG15.2 | Instrumental delivery | | | | | Initial of students |
| OG14.4 | diagnosis; management of abnormal labor | | | | | Initial of students |

Observe and assist the conduct delivery

[illegible]

| | | | | |
|--------|--|--|--|--|
| OG13.5 | | | | |
| OG13.5 | | | | |

Checklist for assessment of skills in Skill lab

| Sl. no | Skills |
|---------------|---------------------------------|
| 1 | Speculum Examination /Pap Smear |
| 2 | Prevaginal examination |
| 3 | Normal Delivery |
| 4 | Episotomy |
| 5 | Female Urinary Catheterization |

1. Speculum Examination / Pap Smear

| Sl No | Step/Task | Yes 1 | No 0 |
|-------|---|----------|---------|
| 1 | Introduce yourself | | |
| 2 | Verbal consent | | |
| 3 | Explain procedure to woman | | |
| 4 | Ask to empty bladder | | |
| 5 | Provide adequate privacy | | |
| 6 | Place in dorsal position | | |
| 7 | Scrub hands | | |
| 8 | Wear sterile gloves | | |
| 9 | Encourage the woman to take deep breath and relax during examination | | |
| 10 | Separate the labia with left hand, introduce cuscus speculum into vagina with right hand. | | |
| 11 | Points to observe: | | |
| | a) Direction of cervix | | |
| | B)Cervical lips | | |
| | c) External os | | |
| | d) abnormal discharge or bleeding from any side | | |
| | e) abnormal growth from any side | | |
| 12 | Take Pap Smear using Ayre's spatula from the cervix \, rotate in a 360° movement. The longer projection of the spatula is inserted into the endocervix and shorter end to the ecto cervix | | |
| 13 | Another sample is collected from the posterior fornix with the flat end of the spatula | | |
| 14 | The material collected is immediately spread over 2 slides and at once put into the fixative ethyl alcohol 95% before drying or fixed with confixative spray. | | |

| | | | |
|----|---|--|--|
| 15 | The slides are labelled and send to the lab with brief patient history and examination findings and proper patient identification number. | | |
| 16 | Proper disposal of the gloves | | |
| 17 | Documentation of findings | | |

Level of expertise expected - advanced / beginner

Level of expected expertise attained- Yes/no

Needs to repeat the session – Yes/ No

Repeat session: level of expected expertise attained- Yes/ No.

2.Prevaginal examination

| Sl No | Step/Task | Yes 1 | No 0 |
|-------|---|----------|---------|
| 1 | Introduce yourself | | |
| 2 | Verbal consent | | |
| 3 | Ask to empty bladder | | |
| 4 | Provide adequate privacy | | |
| 5 | Explain procedure to woman | | |
| 6 | Place in dorsal position | | |
| 7 | Scrub hands | | |
| 8 | Wear sterile gloves | | |
| 9 | Lubricate fingers with jelly | | |
| 10 | Separate the labia with left hand, introduce index and middle finger of right hand into vagina, | | |
| 11 | Encourage the woman to take deep breath and relax during examination | | |
| 12 | Bimanual examination – to note down a) Direction of the cervix | | |

| | | | |
|----|--|--|--|
| | b) consistency of the cervix (firm / hard) | | |
| | c)cervical motion tenderness (tenderness present / absent) | | |
| | d)Whethercervix bleeds on touch | | |
| | e)Uterus - anteverted/ retroverted | | |
| | f)Size of uterus | | |
| | g)Consistency of uterus | | |
| | h)Mobility of uterus | | |
| | i)Surface of Uterus –regular/ irregular | | |
| | j) Palpation of Adnexa – appendages / fornices / describe the mass if palpable | | |
| 13 | Proper disposal of gloves | | |
| 14 | Document findings | | |

Level of expertise expected– advanced/ beginner

Level of expected expertise attained- Yes/no

Needs to repeat the session – Yes/ No

Repeat session: level of expected expertise attained- Yes/ No.

3. Normal delivery

| Sl. No. | Procedure | Yes | No | Comments if any |
|---------|--|-----|----|-----------------|
| 1. | Put on personal protective barriers. (Wear Goggles, Mask, Cap, Shoe cover, Plastic Apron). | | | |

| | | | | |
|-----|--|--|--|--|
| 2. | Perform hand hygiene and put on sterile glove | | | |
| 3. | Empty the bladder | | | |
| 4. | Paint & drape the parts | | | |
| 5. | Talk to the woman and encourage woman for breathing & small pushes with contractions | | | |
| 6. | Once crowning give liberal episiotomy after infiltrating lignocaine | | | |
| 7. | Control the birth of the head with the fingers of one hand to maintain flexion, allow natural stretching of the perineal tissue, ask the assistant to support perineum | | | |
| 8. | Feel around the baby's neck for the cord and respond appropriately if the cord is present. | | | |
| 9. | Allow the baby's head to turn spontaneously and with the hands on either side of the baby's head, delivers the anterior shoulder | | | |
| 10. | Pull the head upward as the posterior shoulder is born over the perineum | | | |
| 11. | Support the rest of the baby's body as it slides out and place the baby on the mother's abdomen over the clean towels | | | |
| 12. | Note the time of birth and sex of the baby | | | |
| 13 | Active management of third stage of labor (AMTSL) a) Administer uterotonic Drug – Inj. oxytocin 10 IU IM or tab. Misoprostol (600ug) orally | | | |

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|-----|--|--|--|--|
| | b) Perform controlled cord Traction during a contraction by placing one hand on the lower abdomen to support the uterus and gently pulling the clamped cord by the other hand close to perineum | | | |
| 14. | Examine the vagina and perineum | | | |
| 15. | Examine the placenta, membranes, and umbilical cord <ul style="list-style-type: none"> • Maternal surface of placenta • Foetal surface • Membranes Umbilical cord | | | |

Level of expertise expected – advanced / beginner

Level of expected expertise attained – Yes / No

Needs to repeat the session – Yes / No

Repeat session: level of expected expertise attained- Yes/ No

4. Episiotomy

| Sl No | Step/Task | Yes 1 | No 0 |
|-------|---|----------|---------|
| 1 | Informs patient about need for episiotomy and local infiltration | | |
| 2 | Gives local Inj. Xylocaine in fan shaped manner after checking for inadvertent needle in vessel | | |
| 3 | Performs the incision with fingers guarding the fetus from injury | | |
| 4 | Confirms integrity of rectum | | |

| | | | |
|----|--|--|--|
| 5 | Changes gloves | | |
| 6 | Identifies the apex of the mucosal layer | | |
| 7 | Ask for appropriate suture material | | |
| 8 | <i>Sutures vaginal mucosa first</i> by continuous suturing | | |
| 9 | Sutures muscle layer intermittently after vaginal mucosa | | |
| 10 | Sutures skin after muscular layer | | |
| 11 | Confirms haemostasis, looks for any forgotten gauze | | |
| 12 | Do a per rectal examination to feel for any suture passing through rectal mucosa | | |

Level of expertise expected– advanced/ beginner

Level of expected expertise-attained- Yes/no

Needs to repeat the session – Yes/ No

Repeat session : level of expected expertise attained- Yes/ No.

5. Female Urinary Catheterization

| Sl No | Step/Task | Yes 1 | No 0 |
|-------|--|----------|---------|
| 1 | Self-Introduce, Explain procedure & take consent | | |
| 2 | Arrange Catheter set | | |
| 3 | Paint external genitalia upto mid-thigh | | |
| 4 | Painting- separate labia minora & clean urethral & vaginal region | | |
| 5 | Draping | | |
| 6 | Keep kidney tray over drape | | |
| 7 | Lubricate the tip of the foley 's Catheter with xylocaine gel | | |
| 8 | Separate labia minora with left hand | | |
| 9 | Introduce the catheter into the urethra | | |
| 10 | Drain the urine into the kidney tray | | |
| 11 | Foley bulb to be inflated with 5 ml distilled water | | |
| 12 | Connecting the urosac bag | | |
| 13 | Dispose appropriately (yellow linen – gauze, paper) (red linen – glove) | | |

Level of expertise expected– advanced/ beginner

Level of expected expertise attained- Yes/no

Needs to repeat the session – Yes/ No

Repeat session : level of expected expertise attained- Yes/ No.

AETCOM MODULES

Module number:

Date:

Name of the activity:

Department of Internal Medicine

| |
|---------------------------------|
| Competencies |
| The student should be able to : |
| |
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| |
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| |

Reflection

Feedback

Signature of the student:

Assessment:

Signature of the faculty

AETCOM MODULES

Module number:

Date:

Name of the activity:

Department of Internal Medicine

| |
|---------------------------------|
| Competencies |
| The student should be able to : |
| |
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| |
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| |

Reflection

Feedback

Signature of the student:

Assessment:

Signature of the faculty

Integrated sessions :

| | Date of session | Topics covered | Competency numbers addressed | Departments involved in the conduct of the session | Signature of the student | Signature of the faculty |
|---|-----------------|----------------|------------------------------|--|--------------------------|--------------------------|
| 1 | | | | | | |

| | | | | | | |
|---|--|--|--|--|--|--|
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |

Self-directed learning sessions:

| Sl. No. | Date | Topic | Competency number | Signature of The Faculty |
|---------|------|-------|-------------------|-----------------------------|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

Seminars presented

| Date | Topic | Content(5) | Clarity of presentation (5) | Interaction (5) | Knowledge (5) | Use of Audio Video aid (5) | Total |
|------|-------|------------|-----------------------------|-----------------|---------------|----------------------------|-------|
| | | | | | | | |
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Research projects and publications

| Sl.no | Name of the topic | Date | Signature of the faculty |
|-------|-------------------|------|--------------------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

Co curricular activities –(quiz, poster, debates, essays, skit)

| Sl.no | Name of the topic | Date | Signature of the faculty |
|-------|-------------------|------|--------------------------|
| 1 | | | |
| 2 | | | |

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|---|--|--|--|
| 3 | | | |
| 4 | | | |
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| 6 | | | |
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| 8 | | | |
| 9 | | | |
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|----|--|--|--|
| 10 | | | |
|----|--|--|--|

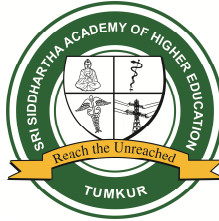
Participation in CME, conference, workshops

| Sl..no | Name of the topic | Date | Signature of the faculty |
|--------|-------------------|------|--------------------------|
| | | | |

| 1 | | | |
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| | | | |
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| 5 | | | |
| Sl. no | Name of the topic | Date | Signature of the faculty |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

Awards and recognition

Sri Siddhartha Academy of Higher Education, Tumkur



Paediatrics Curriculum

as per

Competency-Based Medical Education Curriculum

Abbreviations

| | | |
|--------|---|---|
| NMC | - | National Medical Council |
| IMG | - | Indian Medical Graduate |
| CBME | - | Competency Based Medical Education |
| SLO | - | Specific Learning Objectives |
| TL | - | Teaching Learning |
| P | - | performed |
| Y/N | - | yes / no |
| SGD | - | Small group discussion |
| OSCE | - | Objective structured clinical examination |
| AETCOM | - | Attitude, Ethics and communication |
| SAQ | - | short answer question |
| MCQ | - | multiple choice question |

SSAHE Paediatrics Curriculum as per the new Competency Based Medical Education

Preamble

The NMC envisages that the Indian Medical Graduate, should function as the Physician of first contact in the community, to provide holistic health care to the evolving needs of the nation and the world. To fulfil this the IMG should be able to perform the following roles: a clinician, a communicator, a lifelong learner, a professional and a team leader.

Competency-based medical education (CBME) is an outcomes-based training model that has become the new standard of medical education internationally. This new curriculum is being implemented across the country and the first batch has been enrolled since the academic year 2019. The regulatory and accrediting body NMC had started the process by training faculty across the country in the key principles of CBME and developing key competencies for each speciality with the input from expert groups under each speciality.

Paediatrics is an interesting branch of medicine dealing with health and medical care of children. It encompasses a broad spectrum of services ranging from preventive health care to the diagnosis and treatment of acute and chronic childhood illnesses. It is an ever-evolving branch requiring compassion, dedication and precision of care. The Paediatrics undergraduate curriculum provides the IMG the requisite knowledge, essential skills and appropriate attitudes to be able to diagnose and treat common paediatric disorders and also to be able to recognise serious conditions and refer appropriately.

The NMC, in the Graduate medical regulations 2019, has provided the list of paediatric competencies required for an IMG and these have been included in this curriculum document. The Specific learning objectives (SLO's) to achieve each competency has been listed along with the suggested Teaching-Learning methods and preferred assessment methods.

Following this is a detailed **blueprint** showing the weightage and the assessment tool for a particular chapter. This blueprint will ensure that there is an alignment between the SLOs', TL methods and the assessment. A **question paper layout** has also been added to ensure that there is consistency among different paper setters. Finally, the list of practical skills along with the most appropriate TL and assessment methods has been laid out.

Goals and Objectives of the SSAHE Paediatrics Curriculum

Goals:

The course includes systematic instructions in management of common diseases of infancy and childhood, evaluation of growth and development, nutritional needs, and immunization schedule in children, social pediatrics and counseling is also dealt in the course. The aim of teaching undergraduate medical students is to impart appropriate knowledge and skills to optimally deal with major health problems and also to ensure optimal growth and development of children.

Objectives:

(A) Knowledge

At the end of the course, the student shall be able to:

- 1. Describe normal growth and development during fetal, neonatal, child and adolescence period.*
- 2. Describe the common pediatric disorders and emergencies in terms of epidemiology, etiopathogenesis, clinical manifestations, diagnosis, rational therapy and rehabilitation.*

3. *State age related requirements of calories, nutrients, fluids, drugs etc. in health and disease.*
4. *Describe preventive strategies for common infectious disorders, poisonings, accidents and child abuse.*
5. *Outline national programmes relating to child health including immunization programmes.*

(B) Skills

At the end of the course, the student shall be able to:

1. *Take a detailed pediatric history, conduct an appropriate physical examination of children including neonates, make clinical diagnosis, conduct common bedside investigative procedures, interpret common laboratory investigation results and plan and institute therapy.*
2. *Distinguish between normal newborn babies and those requiring special care and institute early care to all newborn babies including care of preterm and low birth weight babies.*
3. *Take anthropometric measurements, resuscitate newborn infants at birth, prepare oral rehydration solution, perform tuberculin test, administer vaccines available under current national programmes, perform venesection, start an intravenous line and provide nasogastric feeding.*
4. *Would have observed procedures such as lumbar puncture, liver and kidney biopsy, bone marrow aspiration, pleural tap and ascitic tap.*
5. *Provide appropriate guidance and counseling in breast feeding.*
6. *Provide ambulatory care to all sick children, identify indications for specialized/inpatient care and ensure timely referral of those who require hospitalization.*
7. *Be aware and analyse ethical problems that arise during practice and deal with them in an acceptable manner following the code of ethics.*

(C) Attitude and communication skills

At the end of the course, the student shall be able to:

1. Communicate effectively with patients, their families and the public at large.
2. Communicate effectively with peers and teachers and demonstrate the ability to work effectively with peers in a team.
3. Demonstrate professional attributes of punctuality, accountability and respect for teachers and peers.
4. Appreciate the issues of equity and social accountability while undergoing early clinical exposure

(D) Integration

The training in pediatrics should prepare the student to deliver preventive, promotive, curative and rehabilitative services for care of children both in the community and at hospital as part of a team in an integrated form with other disciplines.

List of all Paediatrics competencies with their specific learning objectives, with suggested teaching-learning and assessment methods:

| Number | Competency&LearningObjective(s) | | | Core | Suggested Teaching Learning Method | Suggested Assessment Method | Number for Certification | Vertical Integration | Horizontal Integration |
|--------------------------------------|---------------------------------|-----------------------------|--|------|------------------------------------|---|--------------------------|----------------------|------------------------|
| Topic: Normal Growth and Development | | Number of competencies: (7) | | | | Number of procedures that require certification: (02) | | | |

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| PE1.1 | Define the terminologies Growth and Development and Discuss the factors affecting normal growth and development | | | Y | Lecture/SGD | Written/viva voce | | | |
| 1.1.1 | Define Growth and Development | | | Y | Lecture/SGD | Written/viva voce | | | |
| 1.1.2 | Enumerate the factors affecting normal growth and development | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE1.2 | Discuss and Describe the patterns of growth in infants, children and adolescents | | | Y | Lecture/SGD | Written/viva voce | | | Psych |
| 1.2.1 | Describe the patterns of growth in infants, children and adolescents | | | Y | Lecture/SGD | Written/viva voce | | | |
| 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 | | | Y | Lecture/SGD | Written/viva voce | | | ComMed |
| 1.3.1 | Describe the methods of assessment of growth including use of WHO and Indian national standards. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 1.3.2 | Describe WHO and Indian national standards for growth of infants, children and adolescents. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 1.3.3 | Enumerate the parameters used for assessment of physical growth in infants, children and adolescents. | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE1.4 | Perform Anthropometric measurements, document in growth charts and interpret | | | Y | SGD | Document in Logbook | 3 | | |
| 1.4.1 | Perform anthropometric measurements in children of different age groups. | | | Y | Clinical teaching/skill lab | Document in Logbook | 3 | | |

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| 1.4.2 | Document the measured parameters in growth charts and interpret the findings on growth charts. | | | Y | Clinical teaching/skill lab | Document in Logbook | 3 | | |
| PE1.5 | Define development and Discuss the normal developmental milestones with respect to motor, behavior, social, adaptive and language | | | Y | Lecture/SGD | Written/viva voce | | | Psych |
| 1.5.1 | Define development. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 1.5.2 | Describe the normal developmental milestones with respect to motor, behavior, social, adaptive and language domains. | | | Y | Lecture/SGD | Written/viva voce | | | Psych |
| PE1.6 | Discuss the methods of assessment of development. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 1.6.1 | Discuss the methods of assessment of development | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE1.7 | Perform Developmental assessment and interpret | | | N | Bedside/skill slab | Document in Logbook | 3 | | |
| 1.7.1 | Perform Developmental assessment in infants and children and interpret the findings. | | | N | Bedside/skill slab | Document in Logbook/skill lab | 3 | | |
| Topic: Common problems related to Growth Number of competencies: (6) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE2.1 | Discuss the etiopathogenesis, clinical features and management of a child who fails to thrive | | | Y | Lecture/SGD | Written/viva voce | | | |
| 2.1.1 | Discuss the etiopathogenesis of a child who fails to thrive. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 2.1.2 | Describe the clinical features of a child who fails to thrive. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 2.1.3 | Discuss the management of a child who fails to thrive. | | | Y | Lecture/SGD | Written/viva voce | | | |

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| PE2.2 | Assessment of a child with failure to thrive including eliciting an appropriate history and examination | | | Y | Bedside clinics | Skills station | | | |
| 2.2.1 | Elicit an appropriate history in a child with failure to thrive. | | | Y | Bedside clinics | OSCE/Clinical case | | | |
| 2.2.2 | Perform a complete physical examination in a child with failure to thrive. | | | Y | Bedside clinics | OSCE/Clinical case | | | |
| PE2.3 | Counseling a parent with a failing to thrive child | | | Y | OSCE | Document in Logbook | | AETCOM | |
| 2.3.1 | Counsel a parent of a child with failure to thrive. | | | Y | Skill lab/roleplay | OSCE/Document in Logbook | | | |
| PE2.4 | Discuss the etiopathogenesis, clinical features and management of a child with short stature | | | Y | Lecture/SGD | Written/viva voce | | | |
| 2.4.1 | Enumerate causes of short stature in children. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 2.4.2 | Describe the clinical features of a child with short stature. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 2.4.3 | Discuss the management of a child with short stature. | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE2.5 | Assessment of a child with short stature: Elicit history; perform examination, document and present. | | | Y | Bedside/skill lab | Skill assessment | | | |
| 2.5.1 | Elicit history in a child with short stature. | | | Y | Bedside/skill lab | Bedside/OSCE | | | |
| 2.5.2 | Perform a complete physical examination in a child with short stature. | | | Y | Bedside/skill lab | Bedside/OSCE | | | |

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| 2.5.1 | Document and present assessment of a child with short stature. | | | Y | Bedside/skill lab | Skill assessment/ bedside case | | | |
| PE2.6 | Enumerate the referral criteria for growth related problems | | | Y | Lecture/SGD | Written/ viva voce | | | |
| 2.6.1 | Enumerate the referral criteria for growth related problems | | | Y | Lecture/SGD | Written/ viva voce | | | |
| Topic: Common problems related to Development-1 (Developmental delay, Cerebral palsy) Number of competencies: (8) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE.3.1 | Define, Enumerate and Discuss the causes of developmental delay and disability including intellectual disability in children | | | Y | Lecture, SGD | Written/ viva voce | | | |
| 3.1.1 | Define developmental delay. | | | Y | Lecture/SGD | Written/ viva voce | | | |
| 3.1.2 | Enumerate causes of developmental delay. | | | Y | Lecture/SGD | Written/ viva voce | | | |
| 3.1.3 | Define disability as per WHO. | | | Y | Lecture/SGD | Written/ viva voce | | | |
| 3.1.4 | Define Intellectual disability in children. | | | Y | Lecture/SGD | Written/ viva voce | | | |
| 3.1.5 | Grade intellectual disability in terms of intelligence quotient (IQ). | | | Y | Lecture/SGD | Written/ viva voce | | | |
| PE3.2 | Discuss the approach to a child with developmental delay | | | Y | Lecture, SGD | Written/ viva voce | | | |
| 3.2.1 | Discuss clinical presentation of common causes of developmental delay. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 3.2.2 | Enumerate investigations for developmental delay. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 3.2.3 | Based on clinical presentation, make an | | | Y | Lecture, SGD | Written/ | | | |

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| | investigation plan for a child with developmental delay. | | | | | Viva voce | | | |
| 3.2.4 | Discuss differential diagnosis of developmental delay. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| PE3.3 | Assessment of a child with developmental delay - elicit document and present history | | | Y | Bedside, Skillslab | Skill assessment | | | |
| 3.3.1 | Elicit developmental history from a parent/caretaker. | | | Y | Bedside, Skillslab | Case/OSCE | | | |
| 3.3.2 | Elicit the current developmental milestones of the child. | | | Y | Bedside, Skillslab | OSCE | | | |
| 3.3.3 | Interpret developmental status of a child based on the history and examination. | | | Y | Bedside, Skillslab | OSCE | | | |
| 3.3.4 | Document and present the developmental assessment. | | | Y | Bedside, Skillslab | LOGBOOK | | | |
| PE3.4 | Counsel a parent of a child with developmental delay | | | Y | DOAP Session | Document in Logbook | | | |
| 3.4.1 | Communicate the developmental status of the child to the parent. | | | Y | DOAP Session | Document in Logbook | | | |
| 3.4.2 | Counsel the parents of a child with developmental delay. | | | Y | DOAP Session | Document in Logbook | | | |
| PE3.5 | Discuss the role of the child development unit in management of developmental delay | | | N | Lecture, SGD | Written/Viva voce | | Com Med | |
| 3.5.1 | Enumerate the structure and composition of staff at a child development unit. | | | N | Lecture/SGD | Written/Viva voce | | Com Med | |
| 3.5.2 | Describe the roles of a child development unit. | | | N | Lecture/SGD | Written/Viva voce | | Com Med | |
| PE3.6 | Discuss the referral criteria for children with developmental delay | | | Y | Lecture, SGD | Written/viva voce | | | |

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| | | | | | | voce | | | |
| 3.6.1 | Enumerate clinical criteria for referral of a child with developmental delay. | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE3.7 | Visit a Child Developmental Unit and observe its functioning | | | Y | Lecture,SGD | Logbook entry | | Com Med | |
| 3.7.1 | Observe and list the activities in the child development unit. | | | Y | Lecture,SGD | Logbook entry | | Com Med | |
| PE3.8 | Discuss the etiopathogenesis, clinical presentation and multidisciplinary approach in the management of cerebral palsy | | | Y | Lecture/SGD | Written/viva voce | | | PMR |
| 3.8.1 | Define cerebral palsy. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 3.8.2 | Enumerate common causes of cerebral palsy. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 3.8.3 | Describe the etiopathogenesis of cerebral palsy. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 3.8.4 | Classify cerebral palsy with respect to function and topography. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 3.8.5 | Describe common clinical presentations of different types of cerebral palsy. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 3.8.6 | List some common co-morbidities in a child with cerebral palsy. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 3.8.7 | Describe common interventions for management of a child with cerebral palsy. | | | Y | Lecture/SGD | Written/viva voce | | | |
| Topic: Common problems related to Development-2 (Scholastic backwardness, Learning Disabilities, Autism, ADHD) Number of competencies: (6) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE4.1 | Discuss the causes and approach to a child with scholastic backwardness | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.1.1 | Define scholastic backwardness. | | | N | Lecture,SGD | Written/viva voce | | | |

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| 4.1.2 | List common causes of scholastic backwardness. | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.1.3 | Discuss clinical assessment of a child with scholastic backwardness. | | | N | Lecture,SGD | Written/viva voce | | | |
| PE4.2 | Discuss the etiology, clinical features, diagnosis and management of a child with learning disabilities | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.2.1 | Define learning disabilities. | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.2.2 | Enumerate causes of learning disabilities. | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.2.3 | Describe clinical presentation of a child with learning disabilities. | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.2.4 | Discuss assessment of a child with learning disabilities. | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.2.5 | Discuss management options for a child with learning disabilities. | | | N | Lecture,SGD | Written/viva voce | | | |
| PE4.3 | Discuss the etiology, clinical features, diagnosis and management of a child with Attention Deficit Hyperactivity Disorder (ADHD) | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.3.1 | Define ADHD. | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.3.2 | Describe clinical features of ADHD. | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.3.3 | Discuss diagnostic assessment of a child with suspected ADHD. | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.3.4 | Enumerate drugs for treatment of ADHD. | | | N | Lecture,SGD | Written/viva voce | | | |
| PE4.4 | Discuss etiology, clinical features, diagnosis and management of a child with autism | | | N | Lecture,SGD | Written/viva voce | | | |

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| 4.4.1 | DefineAutismSpectrumDisorders(ASD). | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.4.2 | DiscusscausesofASD. | | | N | Lecture,SGD | Written/vivavoce | | | |
| 4.4.3 | DescribeclinicalfeaturesofASD. | | | N | Lecture,SGD | Written/viva voce | | | |
| 4.4.4 | DiscussclinicalassessmentofASD. | | | N | Lecture,SGD | Written/vivavoce | | | |
| 4.4.5 | DiscussmanagementoptionsforachildwithASD. | | | N | Lecture,SGD | Written/vivavoce | | | |
| PE4.5 | Discuss the role of Child Guidance Clinic in children with Developmental problems | | | N | Lecture,SGD | Written/Viva voce | | Psych | |
| 4.5.1 | Describe the structure of a Child Guidance Clinic with respect to staff and facilities. | | | N | Lecture,SGD | Written/Vivavoce | | Psych | |
| 4.5.2 | Enumerate the functions of a child guidance clinic. | | | N | Lecture,SGD | Written/Vivavoce | | Psych | |
| PE4.6 | Visit to the Child Guidance Clinic | | | N | Lecture,SGD | Document in Logbook | | Psych | |
| 4.6.1 | Describe the functioning of child guidance clinic in their institutions. | | | N | Lecture,SGD | Document in Logbook | | Psych | |
| Topic: Common problems related to behaviour Number of competencies: (3) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE 5.1 | Describe the clinical features, diagnosis and management of thumb sucking | | | N | Lecture,SGD | Written | | | |
| 5.1.1 | Describe clinical features of thumb sucking. | | | N | Lecture,SGD | Written/vivavoce | | | |
| 5.1.2 | Describe diagnosis of thumb sucking. | | | N | Lecture,SGD | Written/viva voce | | | |
| 5.1.3 | Discuss management strategies for a child with thumb sucking. | | | N | Lecture,SGD | Written/vivavoce | | | |

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| PE 5.2 | Describe the clinical features, diagnosis and management of feeding problems | | | N | Lecture, SGD | Written/ viva voce | | | |
| 5.2.1 | Enumerate common feeding problems. | | | N | Lecture, SGD | Written/ viva voce | | | |
| 5.2.2 | Discuss clinical presentations of feeding problems. | | | N | Lecture, SGD | Written/ viva voce | | | |
| 5.2.3 | Discuss management strategies for a child with feeding problems. | | | N | Lecture, SGD | Written/ viva voce | | | |
| PE 5.3 | Describe the clinical features, diagnosis and management of nail-biting | | | N | Lecture, SGD | Written/ Viva a Voce | | | |
| 5.3.1 | Describe features of nail biting. | | | N | Lecture, SGD | Written/ Viva Voce | | | |
| 5.3.2 | Discuss management of nail biting. | | | N | Lecture, SGD | Written/ Viva Voce | | | |
| PE 5.4 | Describe the clinical features, diagnosis and management of breathholdingspells. | | | N | Lecture, SGD | Written/ Viva a Voce | | | |
| 5.4.1 | Describe a breathholding spell. | | | N | Lecture, SGD | Written/ Viva Voce | | | |
| 5.4.2 | Describe the types of breathholdingspells. | | | N | Lecture, SGD | Written/ Viva Voce | | | |
| 5.4.3 | Discuss causes of breathholdingspells. | | | N | Lecture, SGD | Written/ Viva Voce | | | |
| 5.4.4 | Discuss management of breathholdingspells. | | | N | Lecture, SGD | Written/ Viva Voce | | | |
| PE 5.5 | Describe the clinical features, diagnosis and management of temper tantrums | | | N | Lecture, SGD | Written/ Viva a Voce | | | Psych |
| 5.5.1 | Describe presentation of a temper tantrum. | | | N | Lecture, SGD | Written/ Viva Voce | | | |
| 5.5.2 | Discuss causes of temper tantrum. | | | N | Lecture, SGD | Written/ Viva Voce | | | |
| 5.5.3 | Discuss management of temper tantrums. | | | N | Lecture, SGD | Written/ Viva Voce | | | |

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| PE 5.6 | Describe the clinical features, diagnosis and management of pica | | | N | Lecture, SGD | Written/Viva Voce | | | |
| 5.6.1 | Define pica. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| 5.6.2 | Discuss causes of pica. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| 5.6.3 | Discuss treatment of pica. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| PE 5.7 | Describe the clinical features, diagnosis and management of fussy infant | | | N | Lecture, SGD | Written/Viva Voce | | | Psych |
| 5.7.1 | Describe a fussy infant. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| 5.7.2 | Enumerate causes of fussiness in children. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| 5.7.3 | Discuss management of fussiness in a child. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| PE 5.8 | Discuss the etiology, clinical features and management of enuresis. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| 5.8.1 | Define primary and secondary enuresis for boys and girls. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| 5.8.2 | Discuss etiology of primary and secondary enuresis. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| 5.8.3 | Discuss pharmacological and non-pharmacological management strategies for enuresis. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| PE 5.9 | Discuss the etiology, clinical features and management of Encopresis. | | | N | Lecture, SGD | Written/Viva Voce | | | |
| 5.9.1 | Describe Encopresis. | | | N | Lecture, SGD | Written/Viva Voce | | | |

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| 5.9.2 | Discuss causes of Encopresis. | | | N | Lecture,SGD | Written/Viva Voce | | | |
| 5.9.3 | Describe management of Encopresis. | | | N | Lecture,SGD | Written/Viva Voce | | | |
| PE 5.10 | Discuss the role of child guidance clinic in children with behavioural problems and the referral criteria | | | N | Lecture,SGD | Written/Viva Voce | | | Psych |
| 5.10.1 | Describe the role of a child guidance clinic in children with behavioural problems. | | | N | Lecture,SGD | Written/Viva Voce | | | |
| 5.10.2 | Enumerate referral criteria for behavioural problems in children. | | | N | Lecture,SGD | Written/Viva Voce | | | |
| PE 5.11 | Visit to Child Guidance Clinic and observe functioning | | | N | Lecture,SGD | Document in Logbooks | | | |
| 5.11.1 | Describe functioning of a Child Guidance Clinic. | | | N | Lecture,SGD | Document in Logbooks | | | |
| Topic: Adolescent Health & common problems related to Adolescent Health Number of competencies: (13) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE 6.1 | Define Adolescence and stages of adolescence | | | Y | Lecture,SGD | Written/viva voce | | | |
| 6.1.1 | Define adolescence. | | | Y | Lecture,SGD | Written/viva voce | | | |
| 6.1.2 | Enumerate the stages of adolescence. | | | Y | Lecture,SGD | Written/viva voce | | | |
| PE 6.2. | Describe the physical, physiological and psychological changes during adolescence (Puberty) | | | Y | Lecture,SGD | Written/viva voce | | | Psych |
| 6.2.1 | Describe the physical changes during adolescence. | | | Y | Lecture,SGD | Written/viva voce | | | Psych |
| 6.2.2 | Describe the physiological changes during adolescence. | | | Y | Lecture,SGD | Written/viva voce | | | Psych |
| 6.2.3 | Describe the psychological changes during adolescence. | | | Y | Lecture,SGD | Written/viva voce | | | Psych |

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| | ence. | | | | | | | | |
| PE6.3 | Discuss the general health problems during adolescence | | | Y | Lecture,SGD | Written/viva voce | | | |
| 6.3.1 | Enumerate the general health problems of adolescence | | | Y | Lecture,SGD | Written/viva voce | | | |
| 6.3.2 | Describe the general health problems of adolescence | | | Y | Lecture,SGD | Written/viva voce | | | |
| PE6.4 | Describe adolescent sexuality and common problems related to it | | | N | Lecture,SGD | Written/viva voce | | | Psych |
| 6.4.1 | Describe adolescent sexuality. | | | N | Lecture,SGD | Written/viva voce | | | Psych |
| 6.4.2 | Enumerate common problems related to adolescent sexuality. | | | N | Lecture,SGD | Written/viva voce | | | Psych |
| PE6.5 | Explain the Adolescent Nutrition and common nutritional problem | | | Y | Lecture,SGD | Written/viva voce | | | Psych |
| 6.5.1 | Describe the nutritional requirements of adolescents. | | | Y | Lecture,SGD | Written/viva voce | | | |
| 6.5.2 | Discuss the nutritional problems in adolescents. | | | Y | Lecture,SGD | Written/viva voce | | | Psych |
| PE6.6 | Discuss the common Adolescent eating disorders (Anorexia nervosa, Bulimia) | | | N | Lecture,SGD | Written/viva voce | | | Psych |
| 6.6.1 | Describe the common adolescent eating problems like Anorexia nervosa and Bulimia nervosa. | | | N | Lecture,SGD | Written/viva voce | | | Psych |
| PE6.7 | Describe the common mental health problems during adolescence | | | Y | Lecture,SGD | Written/viva voce | | | Psych |
| 6.7.1 | Describe the common mental health problems during adolescence. | | | Y | Lecture,SGD | Written/viva voce | | | Psych |

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| PE6.8 | Respecting patient privacy and maintaining confidentiality while dealing with adolescence | | | Y | Bedside | Skill station | | | |
| 6.8.1 | Interact with an adolescent in privacy and maintaining confidentiality. | | | Y | Bedside | Skill station | | | AETCOM |
| PE6.9 | Perform routine Adolescent Health checkup including eliciting history, performing examination including SMR (Sexual Maturity Rating), growth assessments (using Growth charts) and systemic examination including thyroid and Breast exam and the HEADSS screening | | | Y | Bedside clinic | Skill station | | | |
| 6.9.1 | Elicit the history from an adolescent. | | | Y | Bedside | Skill station | | | |
| 6.9.2 | Assess sexual maturity rating (SMR) in an adolescent. | | | Y | Bedside | Skill station | | | |
| 6.9.3 | Evaluate the growth of an adolescent using growth charts. | | | Y | Bedside | Skill station | | | |
| 6.9.4 | Examine the thyroid gland of an adolescent. | | | Y | Bedside | Skill station | | | |
| 6.9.5 | Perform a breast examination of an adolescent. | | | Y | Bedside | Skill station | | | |
| 6.9.6 | Apply HEADSS screening in adolescent workup. | | | Y | Bedside | Skill station | | | |
| PE6.10 | Discuss the objectives and functions of AFHS (Adolescent Friendly Health Services) and the referral criteria | | | N | Lecture, SGD | Written/ viva voce | | | |
| 6.10.1 | Discuss the objectives of adolescent friendly health services (AFHS). | | | N | Lecture, SGD | Written/ viva voce | | | |
| 6.10.2 | Enumerate the functions of adolescent friendly health services (AFHS). | | | N | Lecture, SGD | Written/ viva voce | | | |
| PE6.11 | Visit to the Adolescent Clinic | | | Y | DOAP session | Document in Logbook | | | |
| 6.11.1 | Visit an adolescent clinic at least once. | | | Y | DOAP session | Document in Logbook | | | |
| PE6.12 | Enumerate the importance of obesity and other NCD | | | Y | Lecture, SGD | Written/ viva voce | | | |

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| | in adolescents | | | | | voce | | | |
| 6.12.1 | Define obesity in adolescence and Enumerate the complications. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 6.12.2 | Analyze the importance of non-communicable diseases in adolescence. | | | Y | Lecture, SGD | Written/viva voce | | | |
| PE6.13 | Enumerate the prevalence and the importance of recognition of sexual drug abuse in adolescents and children | | | N | Lecture, SGD | Written/viva voce | | | |
| 6.13.1 | State the prevalence of sexual and drug abuse among adolescents and children. | | | N | Lecture, SGD | Written/viva voce | | | |
| 6.13.2 | Discuss the importance of recognition of sexual and drug abuse in adolescents and children. | | | N | Lecture, SGD | Written/viva voce | | | Psych |
| Topic: To promote and support optimal Breastfeeding for Infants Number of competencies: (11) Number of procedures that require certification: (01) | | | | | | | | | |
| PE7.1 | Awareness on the cultural beliefs and practices of breastfeeding | | | N | Lecture, SGD | Written/Viva | | | OBG |
| 7.1.1 | Explain the harmless and harmful cultural beliefs and practices of breastfeeding. | | | N | Lecture, SGD | Written/Viva | | | |
| PE7.2 | Explain the Physiology of lactation | | | Y | Lecture, SGD | Written/Viva | | Physio | |
| 7.2.1 | Describe the Anatomy of breast. | | | Y | Lecture, SGD | Written/viva | | | |
| 7.2.2 | Explain the Physiology of lactation. | | | Y | Lecture, SGD | Written/viva | | Physio | |
| PE7.3 | Describe the composition and types of breast milk and Discuss the differences between cow's milk and Human milk | | | Y | Lecture, SGD | Written/viva voce | | Physio | |
| 7.3.1 | Describe the composition of breast milk. | | | Y | Lecture, SGD, | Written/viva voce | | | |

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| 7.3.2 | Describe the composition of cow's milk. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 7.3.3 | Enumerate the differences between breast milk and cow's milk. | | | Y | Lecture, SGD, | Written/viva voce | | | |
| 7.3.4 | Describe the various types of breast milk and their characteristic composition. | | | Y | Lecture, SGD, | Written/viva voce | | | |
| PE7.4 | Discuss the advantages of breast milk | | | Y | Lecture, SGD | Written/viva voce | | | |
| 7.4.1 | Enumerate the advantages of breast milk. | | | Y | Lecture, SGD | Written/viva voce | | | |
| PE7.5 | Observe the correct technique of breastfeeding and distinguish right from wrong technique | | | Y | Bedside, Skillslab | Skill assessment | 3 | | |
| 7.5.1 | Observe correct technique of breastfeeding noting signs of good attachment and correct positioning of mother and baby. | | | Y | Bedside teaching/video/Skilllab | Logbook | 3 | | |
| 7.5.2 | Distinguish correct feeding technique from wrong one on the mother baby dyad. | | | Y | Bedside, skillslab | OSCE (video based) | 3 | | |
| PE7.6 | Enumerate the baby friendly hospital initiatives | | | Y | Lecture, SGD | Written/viva voce | | | |
| PE7.6.1 | Enumerate components of the baby friendly hospital initiative. | | | Y | Lecture, SGD | Written short notes/viva voce | | | |
| PE7.7 | Perform breast examination and Identify common problems during lactation such as retracted nipples, cracked nipples, breast engorgement, breast abscess | | | Y | Bedside, Skillslab | skill assessment | | | OBG |
| 7.7.1 | Enumerate common problems in the mother during lactation. | | | Y | Lecture, Bedside, skillslab | Written/viva voce | | | |

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| 7.7.2 | Examine breast of a lactating mother in an appropriate manner. | | | Y | Bedside, skills lab | Skill assessment, OSCE (video based) | | | |
| 7.7.3 | Identify the common problems after examining the breast in lactating mother viz retracted nipples, cracked nipples, breast engorgement, breast abscess. | | | Y | Bedside, skills lab | Skill assessment, OSCE (video based) | | | |
| PE7.8 | Educate mothers on antenatal breast care and prepare mothers for lactation | | | Y | DOAP session | Document in Logbook | | | AETCOM |
| 7.8.1 | Educate and counsel pregnant woman during antenatal period in preparation for breastfeeding. | | | Y | DOAP session/Clinical session | OSCE | | | |
| 7.8.2 | Educate the pregnant woman for antenatal breast care. | | | Y | DOAP session/Clinical Session | OSCE | | | OBG |
| PE7.9 | Educate and counsel mothers for best practices in Breastfeeding | | | Y | DOAP session | Logbook, OSCE | | | |
| 7.9.1 | Enumerate the best breastfeeding practices. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 7.9.2 | Educate mothers for the best breastfeeding practices. | | | Y | DOAP session | Logbook, OSCE with SP | | | |
| PE7.10 | Respect patient privacy | | | Y | DOAP session | Document in Logbook | | | AETCOM |
| 7.10.1 | Demonstrate respect for a mother's privacy. | | | Y | DOAP session | OSCE | | | |
| PE7.11 | Participate in Breastfeeding Week Celebration | | | Y | DOAP session | Document in Logbook | | | |

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| 7.11.1 | Participate actively in breastfeeding week celebrations. | | | Y | Active Participation in the activities | Document in Logbook | | | |
| Topic: Complementary Feeding Number of competencies: (5) Number of procedures that require recertification: (NIL) | | | | | | | | | |
| PE8.1 | Define the term Complementary Feeding | | | Y | Lecture, SGD | Written/ Viva voce | | ComMed | |
| PE 8.1.1 | Define complementary feeding. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| PE8.2 | Discuss the principles, the initiation, attributes, frequency, technique and hygiene related to complementary feeding including IYCF | | | Y | Lecture, SGD | Written/ Viva voce | | ComMed | |
| 8.2.1 | Describe the principles of complementary feeding. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| 8.2.2 | Narrate the types and attributes of good complementary foods. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| 8.2.3 | Describe the initiation of complementary feeding in different situations. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| 8.2.4 | Describe the frequency of complementary feeding in different situations. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| 8.2.5 | Describe the correct technique of complementary feeding. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| 8.2.6 | Enumerate the hygienic practices to be followed during complementary feeding. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| PE8.3 | Enumerate the common complimentary foods | | | Y | Lecture, SGD | Written/ Viva voce | | ComMed | |
| PE 8.3.1 | Enumerate common locally available complementary foods. | | | Y | Lecture, SGD | SAQ, viva voce | | | |
| PE8.4 | Elicit history on the Complementary Feeding habits | | | Y | BEDSIDE, SKILL LAB | skill assessment | | ComMed | |
| PE 8.4.1 | Elicit a focused and detailed history for complementary | | | Y | Bedside | OSCE | | | |

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| | feeding. | | | | | | | | |
| PE8.5 | Counsel and educate mothers on the best practices in complementary feeding | | | Y | DOAP session | DOCUMENT IN LOGBOOK | | ComMed | |
| 8.5.1 | Counsel the mother for the best practices in complementary feeding. | | | Y | DOAP session | OSCE | | | |
| Topic: Normal nutrition, assessment and monitoring Number of competencies: (7) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE9.1 | Describe the age-related nutritional needs of infants, children and adolescents including micronutrients and vitamins | | | Y | Lecture, SGD | Written/ Vivavoce | | ComMed, Biochemistry | |
| 9.1.1 | List the macronutrients and micronutrients required for growth. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 9.1.2 | Describe the nutritional needs (calorie, protein, micronutrients, minerals and vitamins) of an infant. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 9.1.3 | Describe the nutritional needs (calorie, protein, micronutrients, minerals and vitamins) for children of different ages. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 9.1.4 | Describe the nutritional needs (calorie, protein, micronutrients, minerals and vitamins) of adolescents of both genders. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| PE9.2 | Describe the tools and methods for assessment and classification of nutritional status of infants, children and adolescents | | | Y | Lecture, SGD | Written/ Vivavoce | | ComMed | |
| 9.2.1 | List the tools required for anthropometric measurements viz. weight, length/height, head circumference, mid arm circumference. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 9.2.2 | Describe the method of assessment in detail for different anthropometric measurements for all age groups. | | | Y | Lecture, SGD | Written/ Viva | | | |

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| 9.2.3 | Classify the nutritional status as per WHO classification based on anthropometric measurement data for all age groups. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| PE9.3 | Explain the calorific value of common Indian foods | | | Y | Lecture, SGD | Written/Viva voce | | Biochemistry | |
| 9.3.1 | Explain the calorie and protein content of commonly used uncooked and cooked cereals. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 9.3.2 | Explain the calorie and protein content of common uncooked food items like dairy products, eggs, fruits, vegetables etc. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 9.3.3 | Explain the calorie and protein content of common Indian cooked food items e.g. dalia, roti, chapati, khichdi, dal, rice, idli. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| PE9.4 | Elicit, document and present an appropriate nutritional history and perform a dietary recall | | | Y | Bedside, skill lab | Skill Assessment | | ComMed | |
| 9.4.1 | Take a focused dietary history based on recall method from the caregiver. | | | Y | Bedside, skill lab | OSCE | | | |
| 9.4.2 | Document the dietary history and calculate calorie and protein content. | | | Y | Bedside, skill lab | OSCE, VIVA VOCE | | | |
| 9.4.3 | Present the dietary history. | | | Y | Bedside, skill lab | LONG CASE, VIVA VOCE | | | |
| PE9.5 | Calculate the age appropriate calorie requirement in health and disease and identify gaps | | | Y | Bedside clinic, SGD | OSCE, CLINICAL CASE | | ComMed | |

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| 9.5.1 | Calculate the recommended calorie and protein requirement for children of all age groups. | | | Y | Bedside clinic, SGD | LONG CASE, VIVA VOCE, OSCE | | | |
| 9.5.2 | Calculate the calorie and protein content of 24-hour dietary intake by a child. | | | Y | Bedside clinic, SGD | LONG CASE, VIVA VOCE | | | |
| 9.5.3 | Calculate the gap (deficit) between recommended intake of calorie and protein and actual intake. | | | Y | Bedside clinic, SGD | LONG CASE, VIVA VOCE | | | |
| PE9.6 | Assess and classify the nutrition status of infants, children and adolescents and recognize deviations | | | Y | Bedside clinic, SGD | Skill Assessment | | ComMed | |
| 9.6.1 | Assess nutritional status from anthropometric parameters for children of all age groups. | | | Y | Bedside clinic, SGD | OSCE, Bedside | | | |
| 9.6.2 | Interpret the anthropometric measurement data by plotting in appropriate WHO growth charts for children of all age groups and gender. | | | Y | Bedside clinic, SGD | OSCE | | | |
| 9.6.3 | Classify the type and degree of undernutrition using the WHO charts. | | | Y | Bedside clinic, SGD | OSCE | | | |
| 9.6.4 | Identify overnutrition (overweight and obesity) by using WHO charts. | | | Y | Bedside clinic, SGD | OSCE | | | |
| PE9.7 | Plan an appropriate diet in health and disease | | | N | Bedside clinic, SGD | Document in Logbook | | ComMed | |
| 9.7.1 | Plan a diet for a healthy child of all age groups. | | | N | Bedside clinic, SGD | Document in Logbook | | | |
| 9.7.2 | Plan an age appropriate diet for child of different age groups with undernutrition/overnutrition. | | | N | Bedside clinic, SGD | Document in Logbook | | | |
| 9.7.3 | Plan an age appropriate diet for child of different age groups with few common diseases viz. Lactose | | | N | SGD | Document in Logbook | | | |

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| | intolerance, Celiac disease, Chronic Kidney disease | | | | | | | | |
| Topic: Provide nutritional support, assessment and monitoring for common nutritional problems | | Number of competencies: (6) | | | Number of procedures that require recertification: (NIL) | | | | |
| P E10.1 | Define and Describe the etiopathogenesis, classify including WHO classification, clinical features, complication and management of severe acute malnourishment (SAM) and moderate acute Malnutrition (MAM) | | | Y | Lecture, SGD | Written/ Viva voce | | Physio, Biochemistry, | |
| 10.1.1 | Define malnutrition as per WHO. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 10.1.2 | Describe the aetiology of malnutrition. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 10.1.3 | Discuss the pathophysiology of malnutrition. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 10.1.4 | Classify the malnutrition as per WHO. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 10.1.5 | Describe the criteria for severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) as per WHO. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 10.1.6 | Describe the clinical features of MAM and SAM including marasmus and kwashiorkor. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 10.1.7 | Describe the complications of SAM. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 10.1.8 | Describe the steps of management of SAM involving stabilization and rehabilitation phase. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 10.1.9 | Describe the domiciliary management of moderate acute malnutrition (MAM). | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| P E10.2 | Outline the clinical approach to a child with SAM and MAM | | | Y | Lecture, SGD | Written/ Viva voce | | Physio, Biochemistry | |

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| 10.2.1 | Describe the clinical approach (algorithmic approach including clinical history, examination and investigations) to a child with SAM and MAM. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| P E10.3 | Assessment of a patient with SAM and MAM, diagnosis, classification and planning management including hospital and community-based intervention, rehabilitation and prevention | | | Y | Bedside, Skills Lab | Skill assessment | | Physio, Biochemistry | |
| 10.3.1 | Take clinical history including focussed dietary history from the caregiver. | | | Y | Bedside | OSCE, Longcase | | | |
| 10.3.2 | Examine the child including anthropometry and signs of vitamin deficiency. | | | Y | Bedside | OSCE, Longcase | | | |
| 10.3.3 | Diagnose and classify the patient as having SAM or MAM based on clinical history, examination and anthropometry. | | | Y | Bedside | OSCE, Longcase | | | |
| 10.3.4 | Plan the individualised home-based management in a child with MAM or uncomplicated SAM. | | | Y | Bedside | OSCE, Longcase | | | |
| 10.3.5 | Plan the hospital-based management of complicated SAM in a child. | | | Y | Bedside | OSCE, Longcase | | | |
| 10.3.6 | Plan the hospital-based rehabilitation phase management of complicated SAM in a child. | | | Y | Bedside | OSCE, Longcase | | | |
| 10.3.7 | Plan prevention of malnutrition at all levels. | | | Y | Bedside | OSCE, Longcase | | | |
| P E10.4 | Identify children with undernutrition as per IMNCI criteria and plan referral | | | Y | DOAP session | Document in Logbook | | Com Med | |
| 10.4.1 | Identify undernutrition as per IMNCI criteria. | | | Y | DOAP session | Document in Logbook | | | |

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| 10.4.2 | Describe pre-referral treatment as per IMNCI. | | | Y | DOAP session | Document in Logbook | | | |
| 10.4.3 | Plan referral for children with undernutrition as per IMNCI guidelines. | | | Y | DOAP session | Document in Logbook | | | |
| P E10.5 | Counsel parents of children with SAM and MAM | | | Y | Bedside clinic, Skills Station | Document in Logbook | | AETCOM | |
| 10.5.1 | Counsel the parents on rehabilitation of children with SAM and MAM. | | | Y | Bedside clinic, skill station | OSCE | | | |
| 10.5.2 | Address the queries raised by the parents. | | | Y | Bedside clinic, skill Station | OSCE | | | |
| P E10.6 | Enumerate the role of locally prepared therapeutic diets and ready to use therapeutic diets | | | N | Lecture, SGD | Written/Viva voce | | | |
| 10.6.1 | Enumerate the composition of Ready to use therapeutic foods (RUTF). | | | N | Lecture, SGD | Written/viva voce | | | |
| 10.6.2 | Enumerate the locally available home food prepared with cereals, pulses, sugar, oil, milk and/or egg etc. | | | N | Lecture, SGD | Written/viva voce | | | |
| 10.6.3 | Discuss the role of RUTF/locally prepared food to achieve catch-up growth in malnourished child. | | | N | Lecture, SGD | Written/viva voce | | | |
| Topic: Obesity in children Number of competencies: (6) Number of procedures that require recertification: (01) | | | | | | | | | |
| P E11.1 | Describe the common etiology, clinical features and management of obesity in children | | | Y | Lecture/SGD | Written/Viva voce | NIL | Physio/Biochemistry/Path | |
| 11.1.1 | Define Obesity and overweight as per WHO guidelines. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 11.1.2 | Enumerate common causes of Obesity among children | | | Y | Lecture, SGD | Written/viva voce | | | |

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| 11.1.3 | Describe clinical features of obesity including co-morbidities. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 11.1.3 | Outline principles of management of Obesity in children. | | | Y | Lecture, SGD | Written/viva voce | | | |
| P E11.2 | Discuss the risk approach for obesity and Discuss the prevention strategies | | | Y | Lecture, SGD | Written/Viva voce | | Physio, Path | |
| 11.2.1 | Enumerate risk factors for Obesity among children. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 11.2.2 | Describe strategies for prevention of Obesity. | | | Y | Lecture, SGD | Written/viva voce | | | |
| P E11.3 | Assessment of a child with obesity with regard to eliciting history including physical activity, charting and dietary recall | | | Y | Bedside, Standardized patients | Document in Logbook | | | |
| 11.3.1 | Elicit a detailed history in a child with obesity including activity charting. | | | Y | Bedsideskilllab | Logbook | | | |
| 11.3.2 | Obtain detailed dietary history by recall method. | | | Y | Bedside clinics, skilllab | Logbook | | | |
| P E11.4 | Examination including calculation of BMI, measurement of waist:hip ratio, Identify in general markers like acanthosis, striae, pseudogynecomastia etc | | | Y | Bedside, Standardized patients, Videos | Skills Station | | | |
| 11.4.1 | Perform anthropometry in an obese child including calculation of BMI and Waist Hip Ratio. | | | Y | Bedside /Multimedia based tutorial | OSCE | | | |
| 11.4.2 | Identify physical markers of obesity like acanthosis, striae, pseudogynecomastia. | | | Y | Videos/patients | OSCE | | | |
| P E11.5 | Calculate BMI, document in BMI chart and interpret | | | Y | Bedside, SGD | Document in Logbook | 3 | | |

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| 11.5.1 | Calculate and Chart BMI accurately. | | | Y | Clinical postings | Record Logbook | 3 | | |
| 11.5.2 | Interpret BMI for a given patient. | | | Y | Bedside clinic | OSCE | 3 | | |
| PE 11.6 | Discuss criteria for referral | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 11.6.2 | Enumerate criteria for referral in a obese child. | | | Y | Lecture/SGD | Written/viva voce | | | |
| Topic: Micronutrients in Health and disease-1 (Vitamins A, D, E, K, B Complex and C) Number of competencies: (21) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE 12.1 | Discuss the RDA, dietary sources of Vitamin A and their role in health and disease | | | Y | Lecture, SGD | Written/Viva voce | | Biochemistry | |
| 12.1.1 | Recall the RDA and dietary sources of vitamin A for children of different ages. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 12.1.2 | Describe the physiology and role of vitamin A in health and disease. | | | Y | Lecture, SGD | Written/viva voce | | | |
| PE 12.2 | Describe the causes, clinical features, diagnosis and management of Deficiency/excess of Vitamin A | | | Y | Lecture, SGD | Written/Viva voce | | Biochemistry | |
| 12.2.1 | Enumerate the causes of Vitamin A deficiency/excess in children. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 12.2.2 | Describe the clinical features of Vitamin A deficiency/excess in children. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 12.2.3 | Describe the diagnosis and management of Vitamin A deficiency/excess in children. | | | Y | Lecture, SGD | Written/viva voce | | | |
| PE 12.3 | Identify the clinical features of dietary deficiency/excess of Vitamin A | | | Y | Bedside, SGD | Document in Logbook | | Biochemistry | |
| 12.3.1 | Identify the clinical features of Vitamin A deficiency/excess in children. | | | Y | SGD/clinical photographs/bedside teaching | OSCE/case presentation | | Ophthalmology | |

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| PE 12.4 | Diagnose patients with Vitamin A deficiency (VAD), classify and plan management | | | N | Bedside, Skill Station | Document in Logbook | | Biochemistry | |
| 12.4.1 | Diagnose patients with VAD. | | | N | Bedside | Document in Logbook | | Ophthalmology | |
| 12.4.2 | Classify the patient with VAD as per WHO. | | | N | Skill Station, Bedside | Skill station, Document in Logbook | | Ophthalmology | |
| 12.4.3 | Plan management of a child with VAD. | | | N | Skill Station, Bedside | Skill station, Document in Logbook | | | |
| PE 12.5 | Discuss the Vitamin A prophylaxis program and their Recommendations | | | Y | Lecture, SGD | Written/Viva voce | | Biochemistry | |
| 12.5.1 | Enumerate the components of the National vitamin A prophylaxis program. | | | Y | Lecture, SGD | Written/viva voce | | Com Med | |
| PE 12.6 | Discuss the RDA, dietary sources of Vitamin D and its role in health and disease | | | Y | Lecture, SGD | Written/Viva voce | | Biochemistry | |
| 12.6.1 | Describe the RDA and dietary sources of vitamin D for the pediatric age groups. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 12.6.2 | Describe the role of vitamin D in health and disease. | | | | Lecture, SGD | Written/viva voce | | | |
| PE 12.7 Rickets | Describe the causes, clinical features, diagnosis and management of vitamin D deficiency (VDD)/ excess (Rickets & Hypervitaminosis D) | | | Y | Lecture, SGD | Written / viva voce | | Biochemistry, Physiology, Path | |
| 12.7.1 | List the causes of Rickets/Hypervitaminosis D in children. | | | Y | Lecture, SGD | Written/viva voce | | | |
| 12.7.2 | Describe the clinical features and Describe the underlying pathophysiology of Rickets/Hypervitaminosis | | | Y | Lecture, SGD | Written/viva voce | | | |

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| | sD. | | | | | | | | |
| 12.7.3 | Describe the diagnosis and management of Rickets /HypervitaminosisD. | | | Y | Lecture,SGD | Written/vi vavoce | | | |
| PE 12.8 | Identify the clinical features of dietary deficiency ofVitaminD | | | Y | Bedside,Skillsla b | Document inLogbook | | Biochemi stry, Physio,Pat h | |
| 12.8.1 | IdentifytheclinicalfeaturesofRickets(VDD). | | | Y | Clinical case orphotograp hs/bedsidete aching | OSCE/ clinicalcas e | | | |
| PE 12.9 | AssesspatientswithVitaminDdeficiency,diagn ose,classifyandplanmanagement | | | Y | Bedside,skilllab | Document inLogbook | | Biochemist r y,Radiol ogy | |
| 12.9.1 | Diagnosepatientswith Rickets. | | | Y | Bedside | Documentin Logbook/OS CE | | | |
| 12.9.2 | ClassifythepatientwithRickets. | | | Y | SkillStation,Bedsi de | Skill station,Do cument inLogboo k | | | |
| 12.9.3 | Planmanagementand follow-upofpatient withRickets. | | | Y | Skillstation | Logbook | | | |
| 12.9.4 | Identifynon- responsetoVDDmanagementandIdentify needforreferral. | | | Y | Skillstation | Logbook | | | |
| PE 12.10 | DiscusstheroleofscreeningforVitaminDdeficie ncy | | | Y | Lecture,SGD | Written/viv a voce | | | |
| 12.10.1 | Listthesociodemographicfactorsassociatedwithvi taminDdeficiency. | | | Y | Lecture,SGD | Written/viva voce | | | |

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| 12.10.2 | Describe the prevalence and patterns of VD in the region/country. | | | Y | Lecture,SGD | Written/viva voce | | | |
| 12.10.3 | Discuss the role of screening for VDD in different groups (high-risk/population). | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 12.11 | Discuss the RDA, dietary sources of Vitamin E and its role in health and disease | | | N | Lecture,SGD | Written/Viva voce | | Biochemistry | |
| 12.11.1 | Describe the RDA and dietary sources of vitamin E for the pediatric age. | | | N | Lecture,SGD | Written/viva voce | | Biochemistry | - |
| 12.11.2 | Describe the role of vitamin E in health and disease. | | | N | Lecture,SGD | Written/viva voce | | Biochemistry | |
| PE 12.12 | Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin E | | | N | Lecture,SGD | Written/Viva voce | | Biochemistry | |
| 12.12.1 | List the causes of deficiency of Vitamin E in children. | | | N | Lecture,SGD | Written/viva voce | | Biochemistry | |
| 12.12.2 | Describe the clinical features of deficiency of Vitamin E. | | | N | Lecture,SGD | Written/viva voce | | Biochemistry | |
| 12.12.3 | Describe the diagnosis and management of deficiency of Vitamin E. | | | N | Lecture,SGD | Written/viva voce | | - | |
| PE 12.13 | Discuss the RDA, dietary sources of Vitamin K and their role in health and disease | | | N | Lecture,SGD | Written/Viva voce | | Biochemistry, Physio, Path | |
| 12.13.1 | Describe the RDA and dietary sources of vitamin K for the pediatric age. | | | N | Lecture,SGD | Written/viva voce | | Biochemistry | - |
| 12.13.2 | Describe the role of vitamin K in health and disease. | | | N | Lecture,SGD | Written/viva voce | | Biochemistry | |
| PE 12.14 | Describe the causes, clinical features, diagnosis, management & prevention of deficiency of Vitamin K | | | N | Lecture group, Small Discussion | Written/Viva voce | | Biochemistry, Physio, Path | |
| 12.14.1 | List the causes of deficiency of Vitamin K in children of different ages. | | | N | Lecture/SGD | Written/viva voce | | Biochemistry | |

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| 12.14.2 | List the clinical features of deficiency of Vitamin K. | | | N | Lecture/SGD | Written/viva voce | | Biochemistry | |
| 12.14.3 | Describe the diagnosis and management of deficiency of Vitamin K. | | | N | Lecture/SGD | Written/viva voce | - | - | |
| PE 12.15 | Discuss the RDA, dietary sources of Vitamin B and its role in health and disease | | | | Lecture, SGD | Written/Viva voce | - | Biochemistry | |
| 12.15.1 | Describe the RDA and dietary sources of various vitamins B for the pediatric age group. | | | Y | Lecture/SGD | Written/viva voce | - | Biochemistry | - |
| 12.15.2 | Describe the role of vitamin B in health and disease. | | | Y | Lecture/SGD | Written/viva voce | - | Biochemistry | |
| PE 12.16 | Describe the causes, clinical features, diagnosis and management of deficiency of B complex vitamins | | | Y | Lecture, SGD | Viva/SA Q/MCQ | - | Biochemistry, Com Med, Derm, Hematology | |
| 12.16.1 | List the causes of deficiency of B complex vitamins in children | | | Y | Lecture/SGD | Written/viva voce | - | Biochemistry, Com Med | |
| 12.16.2 | Describe the clinical features of deficiency of B complex vitamins | | | Y | Lecture/SGD | Written/viva voce | - | Biochemistry, Derm, Hematology | |
| 12.16.3 | Describe the diagnosis and management of deficiency of B complex vitamins | | | Y | Lecture/SGD | Written/viva voce | - | Hematology | |
| PE 12.17 | Identify the clinical features of Vitamin B complex Deficiency | | | Y | Bedside, Skills lab | Document in Logbook | - | Derm, Hematology | |
| 12.17.1 | Identify the clinical features of deficiency of B complex vitamins | | | Y | Clinical case /slides/bedside teaching | OSCE | - | Derm, Hematology | |
| PE 12.18 | Diagnose patients with vitamin B complex deficiency and plan management | | | Y | Bedside, Skills lab | Document in Logbook | - | Derm Hematology | |
| 12.18.1 | Diagnose patients with vitamin B complex deficiency | | | Y | Bedside, Clinical phot | Document in Logbook | - | Derm, Hematology | |

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| PE 13.1 | Discuss the RDA, dietary sources of Iron and their role in health and disease | | | Y | Lecture, SGD | Written/ Vivavoce | | Path, Biochemistry | |
| 13.1.1 | Recall the RDA of Iron in children of all age groups. | | | Y | Lecture, SGD | Written/ vivavoce | | | |
| 13.1.2 | Enumerate the dietary sources of Iron and Discuss their role in health and disease. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| PE 13.2 | Describe the causes, diagnosis and management of iron deficiency | | | Y | Lecture, SGD | Written/ vivavoce | | Path, Biochemistry | |
| 13.2.1 | Enumerate the causes of iron deficiency. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| 13.2.2 | Describe the diagnosis of iron deficiency. | | | Y | Lecture, SGD | Written/ vivavoce | | | |
| 13.2.3 | Describe management of iron deficiency. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| PE 13.3 | Identify the clinical features of dietary deficiency of Iron and make a diagnosis | | | Y | Bedside/ skill lab | Document in Logbook | | Path, Biochemistry | |
| 13.3.1 | Identify the clinical features of dietary iron deficiency. | | | Y | Bedside/ skill lab | Document in Logbook / OSCE/ Clinical case | | | |
| 13.3.2 | Make a clinical diagnosis of dietary deficiency of Iron after appropriate history and examination. | | | Y | Bedside/ skill lab | Document in Logbook / OSCE/ Clinical case | | | |
| PE 13.4 | Interpret the hemogram and Iron Panel | | | Y | Bedside clinic/ Small group discussion | Skill Assessment | | Path, Biochemistry | |
| 13.4.1 | Identify the features of iron deficiency anemia in a blood film. | | | Y | Bedside clinic/ Small group discussion | Skill Assessment/ OSCE | | | |

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| 13.4.2 | Identify abnormal hematological indices on a hemogram. | | | Y | Bedside clinic/S mall group discussion | Skill Assessment/OSCE | | | |
| 13.4.3 | Interpret hemogram. | | | Y | Bedside clinic/S mall group discussion | Skill Assessment/OSCE | | | |
| 13.4.4 | Interpret abnormal values of the iron panel. | | | Y | Bedside clinic/S mall group discussion | Skill Assessment/OSCE | | | |
| PE 13.5 | Propose a management plan for IRON deficiency Anemia | | | Y | Bedside/skill lab | Skill assessment | | Path, Pharm | |
| 13.5.1 | Make a management plan for Iron deficiency anemia in children of different ages. | | | Y | Bedside/skill lab | Skill assessment/OSCE | | | |
| PE 13.6 | Discuss the National anemia control program and its recommendations | | | Y | Lecture, SGD | Written/ viva voce | | Pharm, ComMed | |
| 13.6.1 | Describe the components of National anemia control program and its recommendations. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| PE 13.7 | Discuss the RDA, dietary sources of Iodine and its role in Health and disease | | | Y | Lecture, SGD | Written/ viva voce | | Biochemistry | |
| 13.7.1 | Recall the RDA of Iodine in children. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| 13.7.2 | Enumerate the dietary sources of Iodine and their role in Health and disease. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| PE 13.8 | Describe the causes, diagnosis and management of deficiency of Iodine | | | Y | Lecture, SGD | Written/ viva voce | | Biochemistry | |
| 13.8.1 | Enumerate the causes of Iodine deficiency. | | | Y | Lecture, SGD | Written/ viva voce | | | |
| 13.8.2 | Discuss the diagnosis of Iodine deficiency. | | | Y | Lecture, SGD | Written/ viva voce | | | |

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| 13.8.3 | Describe the management of Iodine deficiency. | | | Y | Lecture, SGD | Written/viva voce | | | |
| PE 13.9 | Identify the clinical features of Iodine deficiency disorders | | | N | Bedside clinic | Clinical assessment | | Biochemistry | |
| 13.9.1 | Identify the clinical features of Iodine deficiency disorders. | | | N | Bedside clinic | Clinical assessment | | | |
| PE 13.10 | Discuss the National Goiter Control program and its recommendations | | | Y | Lecture/Small group discussion | Written/viva voce | | Biochemistry, ComMed | |
| 13.10.1 | Discuss the National Goiter Control program and the Recommendations. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| PE 13.11 | Discuss the RDA, dietary sources of Calcium and its role in health and disease | | | Y | Lecture/Small group discussion | Written/viva voce | | Biochemistry | |
| 13.11.1 | Recall the RDA of Calcium in children. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 13.11.2 | Enumerate the dietary sources of calcium. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 13.11.3 | Explain the role of calcium in health and disease. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| PE 13.12 | Describe the causes, clinical features, diagnosis and management of Calcium Deficiency | | | Y | Lecture/Small group discussion | Written/viva voce | | Biochemistry | |
| 13.12.1 | Enumerate the causes of Calcium Deficiency. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 13.12.2 | Describe the clinical features of Calcium Deficiency. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 13.12.3 | Discuss the diagnosis of Calcium Deficiency. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 13.12.4 | Discuss the management of Calcium Deficiency. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |

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| PE 13.13 | Discuss the RDA, dietary sources of Magnesium and their role in health and disease | | | N | Lecture/Small group discussion | Written/viva voce | | Biochemistry | |
| 13.13.1 | Recall the RDA of Magnesium in children. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 13.13.2 | List the dietary sources of Magnesium and their role in health and disease. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| PE 13.14 | Describe the causes, clinical features, diagnosis and management of Magnesium Deficiency | | | N | Lecture/Small group discussion | Written/viva voce | | Biochemistry | |
| 13.14.1 | Enumerate the causes of Magnesium Deficiency. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 13.14.2 | Describe the clinical features of Magnesium Deficiency. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 13.14.3 | Discuss the diagnosis of Magnesium Deficiency. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 13.14.4 | Discuss the management of Magnesium Deficiency. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| Topic: Toxic elements and free radicals and oxygen toxicity Number of competencies: (5) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE 14.1 | Discuss the risk factors, clinical features, diagnosis and management of Lead Poisoning | | | | Lecture/Small Group discussion | Written/viva voce | | Pharm | |
| 14.1.1 | Enumerate the risk factors for lead poisoning in children. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.1.2 | Describe the clinical features of lead poisoning. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.1.3 | Discuss the diagnosis of lead poisoning. | | | N | Lecture/Small group discussion | Written/viva voce | | | |

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| 14.1.4 | Describe the management of a child with lead poisoning including prevention. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| PE 14.2 | Discuss the risk factors, clinical features, diagnosis and management of Kerosene aspiration | | | N | Lecture/Small group discussion | Written/viva voce | | ENT | |
| 14.2.1 | Enumerate the risk factors for kerosene aspiration. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.2.2 | Describe the clinical features of kerosene aspiration. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.2.3 | Discuss the diagnosis of kerosene aspiration. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.2.4 | Describe the management of a child with kerosene aspiration. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| PE 14.3 | Discuss the risk factors, clinical features, diagnosis and management of Organophosphorus poisoning | | | N | Lecture/Small group discussion | Written/viva voce | | Pharm | |
| 14.3.1 | Enumerate the risk factors for organophosphorus poisoning. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.3.2 | Describe the clinical features of organophosphorus poisoning. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.3.4 | Discuss the diagnosis of organophosphorus poisoning. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.3.5 | Describe the management of a child with organophosphorus poisoning. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| PE 14.4 | Discuss the risk factors, clinical features, diagnosis and management of paracetamol poisoning | | | N | Lecture/Small group discussion | Written/viva voce | | Pharm | |
| 14.4.1 | Enumerate the risk factors for paracetamol poisoning. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.4.2 | Describe the clinical features of paracetamol poisoning. | | | N | Lecture/Small group discussion | Written/viva voce | | | |

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| 14.4.3 | Discuss the diagnosis of paracetamol poisoning. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.4.4 | Discuss the management of a child with paracetamol poisoning including prevention. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| PE 14.5 | Discuss the risk factors, clinical features, diagnosis and management of Oxygen toxicity | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.5.1 | Enumerate the risk factors for oxygen toxicity. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.5.2 | Describe the clinical features of oxygen toxicity. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.5.3 | Discuss the diagnosis of oxygen toxicity. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| 14.5.4 | Discuss the management of a child with oxygen toxicity. | | | N | Lecture/Small group discussion | Written/viva voce | | | |
| Topic: Fluid and electrolyte balance Number of competencies: (7) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE 15.1 | Discuss the fluid and electrolyte requirement in health and disease | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 15.1.1 | State the fluid requirement of a healthy neonate. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 15.1.2 | Describe the fluid and electrolyte requirements of healthy children of different ages. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 15.1.3 | Describe the fluid requirements in common diseases of children. | | | Y | Lecture/Small group discussion | | | | |
| PE 15.2 | Discuss the clinical features and complications of fluid and electrolyte imbalance and outline the management | | | | Lecture/Small group discussion | | | | |

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| 15.2.1 | Define hyponatremia and hypernatremia. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 15.2.2 | Define hypokalemia and hyperkalemia. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 15.2.3 | Describe the clinical features of a child who has dehydration or fluid overload. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 15.2.4 | Outline the management of a child who has dehydration or fluid overload. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 15.2.5 | Enumerate the symptoms and signs of hyponatremia and Hypernatremia. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 15.2.6 | Enumerate the symptoms and signs of hypokalemia and hyperkalemia. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 15.2.7 | Outline the management of a child with hyponatremia /hypernatremia. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| 15.2.8 | Outline the management of a child with hypokalemia or Hyperkalemia. | | | Y | Lecture/Small group discussion | Written/viva voce | | | |
| PE 15.3 | Calculate the fluid and electrolyte requirement in health | | | Y | Bedside, SGD | Skill assessment | | | |
| 15.3.1 | Calculate fluid requirement in healthy children of different ages. | | | Y | Bedside, SGD | Skill assessment | | | |
| 15.3.2 | Calculate electrolyte requirement in healthy children of different ages. | | | Y | Bedside, SGD | Skill assessment | | | |
| PE 15.4 | Interpret electrolyte report | | | Y | Bedside/SGD | Skill assessment | | | |
| 15.4.1 | Interpret reports of electrolyte. | | | Y | Bedside/SGD | Skill assessment | | | |
| PE 15.5 | Calculate fluid and electrolyte imbalance | | | Y | Bedside/SGD | Skill assessment | | | |
| 15.5.1 | Calculate fluid requirement of the child to correct fluid imbalance. | | | Y | Bedside/SGD | Skill assessment | | | |
| 15.5.2 | Calculate electrolyte correction for a given scenario. | | | Y | Bedside/SGD | Skill assessment | | | |

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| PE 15.6 | Demonstrate the steps of inserting an IV cannula in a model | | | Y | Skill lab | Skill assessment | | | |
| 15.6.1 | Demonstrate inserting an intravenous cannula on a model in a skill laboratory. | | | Y | Skill lab | Mannequin | | | |
| PE 15.7 | Demonstrate the steps of inserting an interosseous line in a mannequin | | | Y | Skill lab | Skill assessment | | | |
| 15.7.1 | Demonstrate inserting an intraosseous cannula in a mannequin. | | | Y | Skill lab | Mannequin | | | |
| Topic: Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Guideline Number of competencies: (3) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE 16.1 | Explain the components of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines and method of Risk stratification | | | Y | Lecture, SGD | Written/voice | | | |
| 16.1.1 | State the components of IMNCI approach. | | | Y | Lecture/SGD , IMNCI videos | Written/voice | | | |
| 16.1.2 | Explain the risk stratification as per IMNCI. | | | Y | Lecture/SGD | Written/voice | | | |
| PE 16.2 | Assess children < 2 months using IMNCI guidelines | | | Y | DOAP | Document in Logbook | | | |
| 16.2.1 | Demonstrate assessment of the young infant < 2 months age as per IMNCI guidelines. | | | Y | DOAP, Video | Document in Logbook/ bedside session | | | |
| 16.2.2 | Classify the young infants < 2 months age as per the IMNCI classification. | | | Y | DOAP, Video | Document in Logbook/ | | | |

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| 16.2.3 | Identify the treatment in young infants < 2 months as per IMNCI. | | | Y | DOAP, SGD | Document in Logbook | | | |
| 16.2.4 | Counsel parents as per IMNCI guidelines. | | | Y | DOAP, SGD, roleplay, Video | Document in Logbook/ | | | |
| PE16.3 | Assess children > 2 months to 5 years using IMNCI guidelines and stratify risk | | | Y | DOAP | Document in Logbook | | | |
| 16.3.1 | Demonstrate assessment of the child > 2 months to 5 years as per IMNCI format. | | | Y | DOAP, Video | Document in Logbook, OSCE | | | |
| 16.3.2 | Classify the children > 2 months to 5 years as per the IMNCI classification. | | | Y | DOAP, Video | Document in Logbook, OSCE | | | |
| 16.3.3 | Identify the treatment in children > 2 months to 5 years as per IMNCI guidelines. | | | Y | DOAP, SGD | Document in Logbook | | | |
| 16.3.4 | Counsel parents as per IMNCI guidelines. | | | Y | DOAP, SGD, roleplay, Video | Document in Logbook, OSCE | | | |
| 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 RMNCHA+, RBSK, RKSK, JSSK, mission Indradhanush and ICDS | | | Y | Lecture/SGD | Written/viva voce | | Com Med | |
| 17.1.1 | List the national health programs pertaining to maternal and child health. | | | Y | Lecture/SGD | Written/viva voce | | | |

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| 17.1.2 | Outline vision, goals, strategies and plan of action of NHM. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 17.1.3 | Outline the vision, goals, strategies and plan of action of other important national programs for maternal and child health – RMNCHA+, RBSK, RKSK, JSSK, mission Indradhanush and ICDS. | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE17.2 | Analyze the outcomes and appraise the monitoring and evaluation of NHM | | | Y | Debate | Written/viva voce | | ComMed | |
| 17.2.1 | Critically analyze the impact of NHM and other national health programs on maternal and child health. | | | Y | Debate, SGD | Written/viva voce | | | |
| 17.2.2 | Appraise the monitoring and evaluation of NHM and other health programs. | | | Y | Debate, SGD | Written/viva voce | | | |
| Topic: The National Health Programs: RCH Number of competencies: (8) 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 | | | Y | Lecture/SGD | Written/viva voce | | ComMed | OBG |
| 18.1.1 | State the components, strategy and targeted outcome of RCH program. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 18.1.2 | List the prerequisites and role of accredited social health activist (ASHA). | | | Y | Lecture/SGD | Written/viva voce | | | |

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| 18.1.3 | Analyze the monitoring and evaluation of RCH program. | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 18.2 | Explain preventive interventions for child survival and safe motherhood | | | Y | Lecture/ SGD | Written/viva voce | | ComMed | OBG |
| 18.2.1 | List the preventive interventions for child survival and safe motherhood. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 18.2.2 | Explain the preventive interventions for child survival and safe motherhood. | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 18.3 | Conduct antenatal examination of women independently and apply at-risk approach in antenatal care | | | Y | Bedside | Skill station | | ComMed | OBG |
| 18.3.1 | Conduct antenatal examination of women independently. | | | Y | Bedside, Video | Skill station | | | |
| 18.3.2 | Apply at-risk approach in antenatal care. | | | Y | Bedside, Video | Skill station | | | |
| PE 18.4 | Provide intra-natal care and conduct a normal delivery in a simulated environment | | | Y | DOAP session, Skills lab | Document in Logbook | | ComMed | OBG |
| 18.4.1 | Demonstrate the steps of intra-natal monitoring in a simulated environment. | | | Y | DOAP session, Skills Lab, Video | Document in Logbook | | | |
| 18.4.2 | Demonstrate the use of a partogram. | | | Y | DOAP session, Skills Lab, Video | Document in Logbook | | | |
| 18.4.3 | Conduct a normal delivery in a simulated environment. | | | Y | DOAP session, Skills lab, Video | Document in Logbook | | | |
| PE 18.5 | Provide intra-natal care and observe the conduct of a normal delivery | | | Y | DOAP session | Document in Logbook | | | OBG |

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| 18.5.1 | Demonstrate the preparation of various components of intranatal care. | | | Y | DOAP session | Document in Logbook | | | |
| 18.5.2 | Observe and assist in conduct of a normal delivery. | | | Y | DOAP session | Document in Logbook | | | |
| PE 18.6 | Perform Postnatal assessment of newborn and mother, provide advice on breastfeeding, weaning and on family planning | | | Y | Bedside, Skill Lab | Skill Assessment | | ComMed | OBG |

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| 18.6.1 | Perform postnatal assessment of newborn. | | | Y | Bedside, Skill Lab | Skill Assessment | | | |
| 18.6.2 | Perform postnatal assessment of mother. | | | Y | Bedside, Skill Lab | Skill Assessment | | | |
| 18.6.3 | Give advice to the mother on initiation and maintenance of exclusive breastfeeding, common problems seen during breastfeeding, weaning and family planning. | | | Y | Bedside, Skill Lab | Skill Assessment | | | |
| PE 18.7 | Educate and counsel caregivers of children | | | Y | roleplay | OSCE/Skill Assessment | | AETCOM | |
| 18.7.1 | Educate and counsel caregivers of children on newborn care including providing warmth, feeding, and prevention of infection, immunization and danger signs. | | | Y | Role play Video | Skill Assessment OSCE | | | |
| PE 18.8 | Observe the implementation of the program by visiting the Rural Health Center | | | Y | Bedside, Skill Lab | Document in Logbook | | Com Med | OBG |
| 18.8.1 | Make observations on the implementation of the program by visiting the Rural Health Center. | | | Y | Rural health center visit | Document in Logbook | | | |
| Topic: National Programs, RCH-Universal Immunization program Number of competencies: (16) Number of procedures that require certification: (01) | | | | | | | | | |
| PE 19.1 | Explain the components of the Universal Immunization Program (UIP) and the National Immunization Program (NIP) | | | Y | Lecture /SGD | Written/viva voce | | Com Med, Micro ,Biochemistry | |
| 19.1.1 | Explain the components of UIP and NIP. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 19.1.2 | List the vaccines covered under UIP and NIP. | | | Y | Lecture/SGD | Written/viva voce | | | |

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| PE 19.2 | Explain the epidemiology of vaccine preventable diseases (VPDs) | | | Y | Lecture/SGD | Written/viva voce | | Com Med, Micro, Biochemistry | |
| 19.2.1 | Describe the epidemiology of individual VPDs. | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 19.3 | Vaccine description with regard to classification of vaccines, strain used, dose, route, schedule, risks, | | | Y | Lecture/SGD | Written/viva voce | | Com Med, Micro, | |

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| | benefits and side effects, indications and contraindications | | | | | | | Biochemistry | |
| 19.3.1 | Classify vaccines according to type of vaccine. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 19.3.2 | Describe the composition of the NIP vaccines including the strain used. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 19.3.3 | State the dose, route and schedule of all vaccines under NIP. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 19.3.4 | Recall the risks, benefits, side effects, indications and contraindications of vaccines under NIP. | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 19.4 | Define cold chain and discuss the methods of safe storage and handling of vaccines | | | Y | Lecture/SGD | Written/viva voce | | Com Med, Micro, Biochemistry | |
| 19.4.1 | Define cold chain and discuss its importance for vaccines. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 19.4.2 | List the various cold chain equipment. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 19.4.3 | Describe the appropriate storage of vaccines in domestic refrigerator, ice-lined refrigerator (ILR) and vaccine carriers. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 19.4.4 | Enumerate the precautions for maintaining vaccines at appropriate temperature including the use of vaccine vial monitor (VVM). | | | Y | Lecture/SGD | Written/viva voce | | | |
| 19.4.5 | Explain the method of cold chain maintenance during a vaccine session. | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 19.5 | Discuss immunization in special situations - HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, and travelers | | | Y | Lecture/SGD | Written/viva voce | | Com Med, Micro, Biochemistry | |

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| 19.5.1 | Explain immunization in special situations – HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, travelers. | | | Y | Lecture/SGD | Written/v ivavoce | | | |
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| PE 19.6 | Assess patient for fitness for immunization and prescribe an age appropriate immunization schedule | | | Y | Out Patient clinics, Skillslab | Skill Assessment | 5 | | |
| 19.6.1 | Assess patient fitness for immunization. | | | Y | Out Patient clinics, Skillslab | Skill Assessment OSCE | 5 | | |
| 19.6.2 | Make an age appropriate plan for immunization including catchup doses. | | | Y | Out Patient clinics, Skillslab | Skill Assessment OSCE | 5 | | |
| 19.6.3 | Prescribe the correct vaccine, dose, route of administration for the child. | | | Y | Out Patient clinics, Skillslab | Skill Assessment | 5 | | |
| PE 19.7 | Educate and counsel a patient for immunization | | | Y | DOAP session | Document in Logbook | | | |
| 19.7.1 | Educate the parents about the importance of vaccines. | | | Y | DOAP session, Role play | Document in Logbook | | | |
| 19.7.2 | Counsel parents for age appropriate vaccines, the schedule and timing and the expected side effects. | | | Y | DOAP session, Role play | Document in Logbook, OSCE | | | |
| PE 19.8 | Demonstrate willingness to participate in the national and subnational immunization days | | | Y | Lecture/ small group discussion | Document in Logbook | | ComMed | |
| 19.8.1 | Participate in the national (NIDs) and subnational immunization days (SNIDs). | | | Y | Small group, NIDs and SNIDs | Document in Logbook | | | |
| PE 19.9 | Describe the components of safe vaccine practice – Patient education/ counselling; adverse events following immunization, safe injection practices, documentation and medico-legal implications | | | Y | Lecture/ small group discussion/ Immunization clinic | Written/ viva voce | | AETCOM | |
| 19.9.1 | Describe the components of safe vaccine practices – patient education/ counseling. | | | Y | Lecture/SGD | Written/ viva voce | | AETCOM | |

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| 19.9.2 | Describe adverse events following immunization and standard precautions to prevent them. | | | Y | Lecture/SGD | Written/voice | | | |
| 19.9.3 | List safe injection practices and documentation during immunization. | | | Y | Lecture/SGD | Written/voice | | | |
| 19.9.4 | Demonstrate necessary documentation and medico-legal implications of immunization. | | | Y | Lecture/SGD | Written/voice | | | |

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| PE 19.10 | Observe the handling and storing of vaccines | | | Y | DOAP session | Written/viva voce | | | |
| 19.10.1 | Observe and note the correct handling and storing of vaccines. | | | Y | DOAP session, Videos | Viva voce/OSCE | | | |
| PE 19.11 | Document Immunization in an immunization record | | | Y | Out Patient clinic, Skillslab | Skill assessment | | | |
| 19.11.1 | Document Immunization in an immunization record. | | | Y | Out Patient clinics, Skillslab | Skill assessment OSCE | | | |
| PE 19.12 | Observe the administration of UIP vaccines | | | Y | DOAP session | Document in Logbook | | ComMed | |
| 19.12.1 | Observe and document the administration of vaccines. | | | Y | DOAP session | Document in Logbook | | | |
| PE 19.13 | Demonstrate the correct administration of different vaccines in a mannequin | | | Y | DOAP session | Document in Logbook | | ComMed | |
| 19.13.1 | Prepare vaccines by maintaining hand hygiene and skin sterilization. | | | Y | DOAP session, Skill station | Document in Logbook, OSCE | | | |
| 19.13.2 | Administer a vaccine in the mannequin by correct route (IM, SC, ID) for the correct vaccine. | | | Y | DOAP session, Skill station | Document in Logbook, OSCE | | | |
| PE 19.14 | Practice Infection control measures and appropriate handling of the sharps | | | Y | DOAP session | Document in Logbook | | ComMed | |
| 19.14.1 | Practice Infection control measures. | | | Y | DOAP session | Document in Logbook | | | |
| 19.14.2 | Practice appropriate handling of the sharps. | | | Y | DOAP session | Document in Logbook | | | |

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| PE 19.15 | Explain the term implied consent in Immunization services | | | Y | Small group discussion | Written/viva voce | | | |
| 19.15.1 | Explain the term implied consent in Immunization services. | | | Y | Small group discussion | Written/viva voce | | | |
| PE 19.16 | Enumerate available newer vaccines and their indications including pentavalent pneumococcal, rotavirus, JE, typhoid IPV & HPV | | | N | Lecture/small group discussion | Written/viva voce | | | |
| 19.16.1 | Enumerate newer vaccines (pneumococcal, rotavirus, JE typhoid, IPV, influenza & HPV vaccines). | | | N | Lecture/SGD | Written/viva voce | | | |

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| 19.16.2 | List the indications for new vaccines such as pneumococcal, JE, typhoid, influenza & HPV vaccines | | | N | Lecture/SGD | Written/vivo voice | | | |
| Topic: Care of the Normal Newborn and High Risk Newborn Number of competencies: (20) Number of procedures that require recertification: (NIL) | | | | | | | | | |
| PE 20.1 | Define the common neonatal nomenclatures including the classification and describe the characteristics of a Normal Term Neonate and High Risk Neonates | | | Y | Lecture/SGD | Written/vivo voice | | | |
| 20.1.1 | Define the Neonatal and Perinatal period. | | | Y | Lecture/SGD | Written/Vivo voice | | | |
| 20.1.2 | Define live birth and stillbirth. | | | Y | Lecture/SGD | Written/Vivo voice | | | |
| 20.1.3 | Classify the neonate according to birth weight into different categories. | | | Y | Lecture/SGD | Written/Vivo voice | | | |
| 20.1.4 | Classify the neonate according to period of gestation. | | | Y | Lecture/SGD | Written/Vivo voice | | | |
| 20.1.5 | Classify the neonate as per intrauterine growth percentiles. | | | Y | Lecture/SGD | Written/Vivo voice | | | |
| 20.1.6 | Define Neonatal Mortality Rate (NMR) and Perinatal Mortality Rate. | | | Y | Lecture, SGD. | Written/Vivo voice | | | |
| 20.1.7 | Describe the characteristics of a normal term neonate. | | | Y | Lecture, SGD. | Written/Vivo voice | | | |
| 20.1.8 | Describe the characteristics of the high-risk neonate. | | | Y | Lecture, SGD. | Written/Vivo voice | | | |
| PE 20.2 | Explain the care of a normal neonate | | | Y | Lecture, SGD | Written/Viva voice | | | |
| 20.2.1 | Enumerate the components of Essential Newborn Care | | | Y | Lecture, SGD | Written/Vivo voice | | | |
| 20.2.2 | Enumerate the steps of care of the normal neonate at birth. | | | Y | Lecture, SGD. | Written/Vivo voice | | | |
| 20.2.3 | Explain the care of the normal neonate during the postnatal period. | | | Y | Lecture, SGD. | Written/Vivo voice | | | |

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| 20.2.4 | List the criteria for discharge of a normal neonate from the Hospital | | | Y | Lecture, SGD. | Written/Viva voce | | | |
| PE 20.3 | Perform Neonatal resuscitation in a manikin | | | Y | DOAP/SKILL LAB | Logbook | | | |
| 20.3.1 | Perform all the steps of routine care on a manikin. | | | Y | DOAP/skill lab | Logbook/OSCE | | | |

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| 20.3.2 | Demonstrate the initial steps of neonatal resuscitation in a manikin in the correct sequence. | | | Y | DOAP | Logbook entry/OSCE | | | |
| 20.3.3 | Demonstrate the method of counting the heart rate of the neonate during resuscitation. | | | Y | DOAP | Skilllab/OSCE | | | |
| 20.3.4 | Demonstrate the method of administering free flow oxygen during resuscitation. | | | Y | DOAP | Skill station/OSCE | | | |
| 20.3.5 | Check the functions of all parts of the self-inflating bag. | | | Y | DOAP | Logbook entry/OSCE | | | |
| 20.3.6 | Demonstrate the method of positive pressure ventilation (PPV) in a manikin using appropriate size of bag and mask. | | | Y | DOAP | Logbook entry/OSCE | | | |
| 20.3.7 | Check the signs of effective positive pressure ventilation. | | | Y | DOAP | Logbook/OSCE | | | |
| 20.3.8 | Initiate corrective steps in correct sequence for ineffective ventilation in simulated settings. | | | Y | DOAP | Logbook entry/OSCE | | | |
| 20.3.9 | Demonstrate the method of placement of orogastric tube during prolonged PPV in a manikin. | | | Y | DOAP | Logbook entry | | | |
| 20.3.10 | Demonstrate the 'thumb technique' and 'two finger technique' of providing chest compression in a manikin. | | | Y | DOAP | Logbook entry/skill station/OSCE | | | |
| 20.3.11 | Prepare correct dilution of adrenaline injection. | | | Y | DOAP | Logbook | | | |
| 20.3.12 | Identify the correct size of Laryngoscope and endotracheal tube based on given birth weight/gestation correctly. | | | Y | DOAP | Logbook entry/OSCE | | | |
| 20.3.13 | Demonstrate the technique of endotracheal intubation in a manikin correctly. | | | Y | DOAP | Logbook entry | | | |
| PE 20.4 | Assessment of a normal neonate | | | Y | Bedside/Skilllab | Skill assessment | | | |
| 20.4.1 | Elicit the relevant general, antenatal, natal and postnatal history of the mother. | | | Y | Bedside/Skilllab | Skill assessment | | | |

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| 20.4.2 | Demonstrate the touch method of assessment of temperature in a newborn. | | | Y | Bedside/Skill lab | Skill assessment | | | |
| 20.4.3 | Demonstrate the method of recording axillary and rectal temperature in a neonatal manikin. | | | Y | Bedside/Skill lab | Skill assessment | | | |
| 20.4.4 | Demonstrate the counting of respiratory rate in a neonate. | | | Y | Bedside/Skill lab | Skill assessment | | | |
| 20.4.5 | Demonstrate the eliciting of capillary refill time CRT in a newborn. | | | Y | Bedside/Skill lab | Skill assessment | | | |

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| 20.4.6 | Demonstrate counting the heart rate in a neonate. | | | Y | Bedside/Skill lab | Skill assessment | | | |
| 20.4.7 | Measure weight, length, head circumference and chest circumference in a neonate/manikin accurately. | | | Y | Bedside/Skill lab | Skill assessment | | | |
| 20.4.8 | Perform a gestational assessment by physical and neurological criteria in a neonate. | | | Y | Bedside/Skill lab | Skill assessment | | | |
| 20.4.9 | Perform a head-to-toe examination of the neonate. | | | Y | Bedside/Skill lab | Skill assessment | | | |
| 20.4.10 | Elicit common neonatal reflexes like rooting, sucking, grasp, and Moro's reflex correctly. | | | Y | Bedside/Skill lab | Skill assessment | | | |
| 20.4.11 | Perform a relevant systemic examination of a neonate | | | Y | Bedside/Skill lab | Skill assessment | | | |
| PE 20.5 | Counsel/educate mothers on the care of neonates | | | Y | DOAP | Logbook entry | | | |
| 20.5.1 | Counsel mothers using the GALPAC technique (Get, Ask, Listen, Praise, Advise, Check for understanding) appropriately. | | | Y | DOAP | Logbook documentation/OSCE | | | |
| 20.5.2 | Educate mothers regarding care of the eyes, skin and cord stump of the neonate. | | | Y | DOAP | Logbook documentation | | | |
| 20.5.3 | Educate the mother for prevention of infections. | | | Y | DOAP | Logbook documentation/OSCE | | | |
| 20.5.4 | Educate mothers regarding bathing routine and cleanliness. | | | Y | DOAP | Logbook documentation/OSCE | | | |
| 20.5.5 | Counsel the mother regarding her own nutrition and health. | | | Y | DOAP | Logbook documentation | | | |
| PE 20.6 | Explain the follow-up care for neonates including Breastfeeding, Temperature maintenance, immunization, importance of growth monitoring and red flags. | | | Y | DOAP | Logbook documentation | | | |
| 20.6.1 | Counsel the mothers about the importance of exclusive | | | Y | DOAP | Logbook documentation | | | |

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| | breastfeedingappropriately. | | | | | n | | | |
| 20.6.2 | Educate the mother regarding harmful effects of pre-lactealsandnon-humanmilk. | | | Y | DOAP | Logbookdoc umentation | | | |
| 20.6.3 | Explaintothemothertheimportanceoffrequentbreastfeedingincludingnightfeeds. | | | Y | DOAP | Logbookdoc umentation | | | |

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| 20.6.4 | Educate the mother regarding common lactation problems | | | Y | DOAP | Logbook documentation | | | |
| 20.6.5 | Explain to the mother the methods of keeping the baby warm at home. | | | Y | DOAP | Logbook documentation/OSCE | | | |
| 20.6.6 | Demonstrate the technique of Kangaroo Mother Care in a manikin and simulated mother. | | | Y | DOAP | Logbook documentation/OSCE | | | |
| 20.6.7 | Explain the schedule of immunization as per the national immunization schedule correctly. | | | Y | DOAP | Logbook documentation/OSCE | | | |
| 20.6.8 | Counsel the parents on importance of regular visits to the well baby clinic for growth monitoring. | | | Y | DOAP | Logbook documentation/OSCE | | | |
| 20.6.9 | Explain to the parents the red flag signs for urgent visit to hospital. | | | Y | DOAP | Logbook documentation/OSCE | | | |
| PE 20.7 | Discuss the etiology, clinical features and management of Birth asphyxia | | | Y | Lecture/ SGD | Written/ Viva voce | | | |
| 20.7.1 | Define birth asphyxia as per NNF (National Neonatology Forum) and WHO, AAP guidelines. | | | Y | Lecture/SGD | Written/ Viva voce | | | |
| 20.7.2 | Enumerate the etiology of birth asphyxia based on antenatal, natal and postnatal factors. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 20.7.3 | Describe the clinical features of birth asphyxia. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 20.7.4 | List the complications of hypoxic ischaemic encephalopathy. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 20.7.5 | Describe the post-resuscitation management of the asphyxiated neonate. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| PE 20.8 | Discuss the etiology, clinical features and management of respiratory distress in Newborn including meconium aspiration and transient tachypnea of newborn. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 20.8.1 | Define Respiratory Distress in a neonate (as per NN | | | Y | Lecture, SGD | Written | | | |

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| 20.8.2 | Enumerate the common etiologies of respiratory distress based on time of onset and gestation. | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.8.3 | Enumerate the parameters of the Downess score for assessment of severity of respiratory distress. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.8.4 | Describe the clinical features and complications of Meconium Aspiration Syndrome (MAS). | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.8.5 | Discuss the management of MAS. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.8.6 | Discuss the clinical features and management of Transient Tachypnea of Newborn. | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.8.7 | Describe the etiology and clinical features of Hyaline Membrane Disease. | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.8.8 | Discuss the management including prevention of HMD. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| PE 20.9 | Discuss the etiology, clinical features and management of birth injuries. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.9.1 | Define birth injury (as per National Vital Statistics Report). | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.9.2 | Enumerate the common birth injuries in neonates | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.9.3 | Discuss the etiology and risk factors of birth injuries | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.9.4 | Discuss the clinical features of common birth injuries like, cephalhematoma, subgaleal hemorrhage, brachial plexus and facial nerve injury, bone and soft tissue injuries and intra-abdominal injuries, fractures. | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.9.5 | Discuss the management including prevention of common birth injuries | | | Y | Lecture, SGD | Written /Viva voce | | | |
| PE 20.10 | Discuss the etiology, clinical features and management of hemorrhagic disease of newborn | | | Y | Lecture, SGD | Written/Viva voce | | | |

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| 20.10.1 | Enumeratethecausesofhemorrhagicdiseaseofnew born accordingto time of onset. | | | Y | Lecture,SGD | Written/Viva voce | | | |
| 20.10.2 | Discuss the role of vitamin K deficiency in hemorrhagic disease of newborn. | | | Y | Lecture,SGD | Written /Viva voce | | | |

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| 20.10.3 | Describe the clinical features of early, classical and late onset hemorrhagic disease of newborn. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.10.4 | Outline the steps of management and prevention of hemorrhagic disease of newborn. | | | Y | Lecture, SGD | Written/Vivavoce | | | |
| PE 20.11 | Discuss the clinical characteristics, complications and management of low birth weight (preterm and small for gestation). | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.11.1 | Describe the clinical characteristics of preterm, small for gestation and low birth weight newborns. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.11.2 | Enumerate the complications in the preterm, small for gestation and low birth weight newborns | | | Y | Lecture, SGD | Written/Vivavoce | | | |
| 20.11.3 | Describe the management of the preterm, small for date and low birth weight newborns. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.11.4 | Enumerate the criteria for discharge of low birth weight babies from hospital-based care. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.11.5 | List the follow-up advice for low birth weight newborns. | | | Y | Lecture, SGD | Written/Vivavoce | | | |
| PE 20.12 | Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypothermia. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.12.1 | Enumerate the modes of heat loss in a newborn. | | | Y | Lecture, SGD | Written/Vivavoce | | | |
| 20.12.2 | Describe the mechanism of thermoregulation in the newborn. | | | Y | Lecture, SGD | Written/Vivavoce | | | |
| 20.12.3 | Classify hypothermia in newborns as per NNF criteria. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.12.4 | Describe the clinical features of a newborn with cold stress, moderate hypothermia and severe hypothermia. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.12.5 | Discuss the management of cold stress, moderate hypothermia and severe hypothermia. | | | Y | Lecture, SGD | Written/Vivavoce | | | |

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| 20.12.6 | Outline the prevention of hypothermia in newborn by 'ten steps of the warm chain'. | | | Y | Lecture, SGD | Written / Viva voce | | | |
| 20.12.7 | Explain the Kangaroo Mother Care for prevention of hypothermia in newborns. | | | Y | Lecture, SGD | Written / Viva voce | | | |

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| PE 20.13 | Discuss the etiology, clinical features and management of Neonatal hypoglycemia. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.13.1 | Define hypoglycemia in newborn. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.13.2 | Enumerate the etiology of hypoglycemia in the newborn. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.13.3 | Enumerate the "at risk newborns" needing routine blood sugar monitoring for hypoglycemia. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.13.4 | Describe the clinical features of hypoglycemia in the newborn. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.13.5 | Discuss the management of a newborn with asymptomatic and symptomatic hypoglycemia. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.13.6 | Enumerate the measures for prevention of hypoglycemia in newborn. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| PE 20.14 | Discuss the etiology, clinical features and management of Neonatal hypocalcemia. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.14.1 | Define neonatal hypocalcemia. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.14.2 | Enumerate the risk factors for early and late onset hypocalcemia. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.14.3 | Describe the clinical features of neonatal hypocalcemia. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.14.4 | Outline the management of neonatal hypocalcemia. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| PE 20.15 | Discuss the etiology, clinical features and management of neonatal seizures. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.15.1 | Enumerate the clinical types of seizures in the newborn. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.15.2 | Enumerate the key differentiating features between seizures | | | Y | Lecture, SGD | Written/Viva voce | | | |

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| | and jitteriness. | | | | | | | | |
| 20.15.3 | Describe the common causes of neonatal seizures according to time of onset of seizure. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.15.4 | Discuss the clinical features of the common causes of neonatal seizures. | | | Y | Lecture, SGD | Written /Vivavoce | | | |

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| 20.15.5 | List the primary diagnostic tests indicated in neonatal seizures. | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.15.6 | Elaborate the stepwise algorithmic approach for the management of neonatal seizures. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| PE 20.16 | Discuss the etiology, clinical features and management of neonatal sepsis. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.16.1 | Define neonatal sepsis, probable sepsis, severe sepsis, septic shock | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.16.2 | Classify Early and late neonatal sepsis. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.16.3 | Enumerate the organisms responsible for causing early and late onset sepsis. | | | Y | | | | | |
| 20.16.4 | Enumerate the risk factors of early and late onset neonatal sepsis correctly. | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.16.5 | Describe the clinical features of early onset and late onset neonatal sepsis | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.16.6 | Enumerate the commonly used laboratory tests for diagnosis of neonatal sepsis. | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.16.7 | Recall the interpretation of a positive sepsis screen. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 20.16.8 | Describe the approach to a newborn with suspected early onset sepsis. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.16.9 | Describe the approach to a newborn with suspected late onset sepsis. | | | Y | Lecture, SGD | Written /Viva voce | | | |
| 20.16.8 | List the commonly used antibiotics (with dosage and duration of therapy) in the management of neonatal sepsis. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 20.16.9 | Describe the supportive and adjunctive therapy in management of neonatal sepsis. | | | N | Lecture/SGD | Written/viva voce | | | |
| 20.16.9 | Discuss the measures for prevention of early onset | | | Y | Lecture, SGD | Written | | | |

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| | andlateonsetsepsis. | | | | | /Vivavoce | | | |
| PE 20.17 | Discuss the etiology, clinical features and management of Perinatal infections. | | | Y | Lecture,SGD | Written/Viva voce | | | |
| 20.17.1 | Define Perinatal infection. | | | Y | Lecture,SGD | Written/Viva voce | | | |

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| 20.17.2 | Discuss the etiology and risk factors for acquisition of common Perinatal infections like Herpes, Cytomegalovirus, Toxoplasmosis, Rubella, HIV, Varicella, Hepatitis B virus and syphilis. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.17.3 | Describe the clinical features of the common Perinatal infections. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| 20.17.4 | Outline the management of the common Perinatal infections. | | | Y | Lecture, SGD | Written/Vivavoce | | | |
| 20.17.5 | Enumerate the measures for prevention of common Perinatal infections. | | | Y | Lecture, SGD | Written /Vivavoce | | | |
| PE 20.18 | Identify and stratify risk in a sick neonate using IMNCI guidelines | | | Y | DOAP | Document in Logbook | | | |
| 20.18.1 | Identify possible serious bacterial infection/jaundice and stratify the sick neonate as per IMNCI. | | | Y | DOAP | Document in Logbook | | | |
| 20.18.2 | Identify and stratify dehydration in a sick neonate with diarrhea as per IMNCI. | | | Y | DOAP | Document in Logbook | | | |
| 20.18.3 | Classify diarrhea into severe persistent diarrhea and severe dysentery as per IMNCI guidelines. | | | Y | DOAP | Document in Logbook | | | |
| 20.18.4 | Check for feeding problem and malnutrition and stratify. | | | Y | DOAP | Document in Logbook | | | |
| 20.18.5 | Assess breastfeeding and check for signs of good attachment to the breast in a neonate. | | | Y | DOAP | Document in Logbook | | | |
| 20.18.6 | Interpret and classify the neonate on the basis of weight for age z scores weight categories accurately. | | | Y | DOAP | Document in Logbook | | | |
| PE 20.19 | Discuss the etiology, clinical features and management of Neonatal hyperbilirubinemia. | | | Y | Lecture/SGD | Written/Vivavoce | | | |

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| 20.19.1 | Describe the etiology of neonatal hyperbilirubinemia | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 20.19.2 | Differentiate the causes of neonatal jaundice based on age of onset and duration of jaundice. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 20.19.3 | Enumerate the common causes of unconjugated and conjugated hyperbilirubinemia in the newborn. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 20.19.4 | Differentiate between physiological and pathological jaundice in the newborn. | | | Y | Lecture/SGD | Written/Viva voce | | | |

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| 20.19.5 | Discuss the clinical features of common causes of neonatal jaundice | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 20.19.6 | Describe the important clinical features of acute bilirubin encephalopathy. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 20.19.7 | List the investigations to be performed in the evaluation of neonatal hyperbilirubinemia. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 20.19.8 | Categorize the risk in neonatal hyperbilirubinemia based on the American Academy of Pediatrics Bilirubin Nomogram. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 20.19.9 | Identify a neonate requiring phototherapy as per the American Academy of Pediatrics Bilirubin Nomogram. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 20.19.10 | Identify a neonate requiring exchange transfusion as per the American Academy of Pediatrics Bilirubin Nomogram correctly. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 20.19.11 | Describe the care of the baby receiving phototherapy. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 20.19.12 | Explain the mechanism of phototherapy. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 20.19.13 | Detail the method of administering phototherapy. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 20.20 | Identify clinical presentations of common surgical conditions in the newborn including TEF, esophageal atresia, anal atresia, cleft lip and palate, congenital diaphragmatic hernia and causes of acute abdomen. | | | Y | Lecture/ SGD | Written/ vivavoce | | | |
| 20.20.1 | Describe clinical presentations of common surgical conditions in the newborn like Tracheo-esophageal fistula (TEF), esophageal atresia, anal atresia, cleft lip and palate and | | | Y | Lecture/SGD | Written /Viva voce | | | |

[illegible]

| Topic:Genito-Urinarysystem | | Numberofcompetencies:(17) | | | Numberofprocedureshatrequirecertification:(NIL) | | | | |
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| PE21.1 | Enumeratetheetiopathogenesis,clinicalfeatures,complicationsandmanagementofUrinary Tract infection(UTI)inchildren | | | Y | Small groupdiscussion | Written/Vivavoce | | Micro | |
| 21.1.1 | DefineUTIasperstandardcriteria. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 21.1.2 | EnumeratetheorganismscausingUTIinchildrenofdifferentages. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 21.1.3 | Describetheclinicalfeaturesofsimple&complicatedUTI. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 21.1.4 | OutlinediagnosticworkupforchildrenwithUTIatdifferentages. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 21.1.5 | Describe the treatment including the choice of antibiotics anddurationofantibiotic therapyfortreating simple& complicatedUTI. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 21.1.6 | EnumeratethecomplicationsofUTIchildren. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| PE21.2 | Enumeratetheetiopathogenesis,clinicalfeatures, complications and management of acute post-streptococcalGlomerularNephritisinchildren | | | Y | Lecture/ SGD | Written/Vivavoce | | Path | |
| 21.2.1 | Defineacute glomerulonephritis. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 21.2.2 | Elaboratepathogenesisofimmunemediated nephriticsyndrome | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 21.2.3 | DescribetheclinicalfeaturesofPost-StreptococcalGlomerulonephritis(PSGN) | | | Y | Lecture/SGD | Written/Vivavoce | | | |

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| 21.2.4 | EnumeratethecomplicationsofPSGN. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 21.2.5 | EnumeratetheinvestigationsforPSGN. | | | Y | Lecture/SGD | Written /Vivavoce | | | |
| 21.2.6 | EnumerateindicationsofkidneybiopsyinPSGN. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 21.2.7 | OutlinemanagementofPSGN. | | | Y | Lecture/SGD | Written /Vivavoce | | | |

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| PE21.3 | Discuss the approach and referral criteria to a child with Proteinuria | | | Y | Lecture/ SGD | Written/ Viva voce | | Path | |
| 21.3.1 | List causes of glomerular & non-glomerular Proteinuria. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 21.3.2 | Define nephrotic syndrome. | | | Y | Lecture/SGD | Written/ Viva voce | | | |
| 21.3.3 | Enumerate causes of nephrotic syndrome. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 21.3.4 | Outline the approach to a child with first episode of nephrotic syndrome. | | | Y | Lecture/SGD | Written/ Viva voce | | | |
| 21.3.5 | List the complications of nephrotic syndrome. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 21.3.6 | List indications of kidney biopsy in nephrotic syndrome. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 21.3.7 | Outline the management of initial episode of nephrotic syndrome and subsequent relapse. | | | Y | Lecture/SGD | Written/ Viva voce | | | |
| 21.3.8 | List the criteria for referral of a child with proteinuria. | | | Y | Lecture/SGD | Written /Viva voce | | | |
| PE21.4 | Discuss the approach and referral criteria to a child with hematuria | | | Y | Lecture/ SGD | Written/ Viva voce | | Anat | |
| 21.4.1 | Enumerate causes of hematuria in children of different ages | | | Y | Lecture/SGD | Written/ Viva voce | | | |
| 21.4.2 | Outline differences between glomerular & non-glomerular hematuria | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 21.4.3 | List investigations for a child with hematuria | | | Y | Lecture/SGD | Written /Viva voce | | | |
| 21.4.4 | List indications of kidney biopsy in hematuria | | | Y | Lecture/SGD | Written/ Viva voce | | | |
| 21.4.5 | List criteria for referral for a child with hematuria | | | Y | Lecture/SGD | Written /Viva voce | | | |

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| PE21.5 | Enumerate the etiopathogenesis, clinical features, complications and management of Acute Renal Failure in children | | | Y | Lecture/ SGD | Written /Viva voce | | Path | |
| 21.5.1 | Define acute kidney injury (AKI) as per KDIGO. | | | Y | Lecture/SGD | Written/Viva voce | | | |

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| 21.5.2 | OutlineclassificationofAKI. | | | Y | Lecture/SGD | Written /Vivavoce | | | |
| 21.5.3 | EnumeratecausesofAKI. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 21.5.4 | ListinvestigationsforAKIinchildren. | | | Y | Lecture/SGD | Written /Vivavoce | | | |
| 21.5.5 | DescribethemanagementofAKI. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 21.5.6 | ListindicationsofrenalreplacementtherapyinAKI. | | | Y | Lecture/SGD | Written /Vivavoce | | | |
| 21.5.7 | EnumeratecomplicationsofAKI. | | | Y | Lecture/SGD | Written /Vivavoce | | | |
| PE21.6 | Enumerate the etiopathogenesis, clinical features, complications and management of chronic kidney disease in children. | | | Y | Lecture/ SGD | Written /Vivavoce | | Path | |
| 21.6.1 | Definechronickidneydisease(CKD)&itsstaginginch ildren. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 21.6.2 | OutlinetheclinicalfeaturesofCKDinchildren. | | | Y | Lecture/SGD | Written /Vivavoce | | | |
| 21.6.3 | ListcausesofCKDinchildren. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 21.6.4 | EnumeratecomplicationsofCKDinchildren. | | | Y | Lecture/SGD | Written /Vivavoce | | | |
| 21.6.5 | OutlinemanagementofCKD &itscomplications. | | | Y | Lecture/SGD | Written /Vivavoce | | | |
| PE21.7 | Enumeratetheetiopathogenesis,clinicalfeature s, complicationsandmanagementofWilmsTumor . | | | Y | Lecture/ SGD | Written/Viva voce | | Path | |
| 21.7.1 | DescribeEtiopathogenesisofWilmstumor. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 21.7.2 | DescribeclinicalfeaturesofWilmstumor. | | | Y | Lecture/SGD | Written /Vivavoce | | | |

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| 21.7.3 | List investigations for a patient with Wilms tumor. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 21.7.4 | Outline the management of Wilms tumor. | | | Y | Lecture/SGD | Written /Viva voce | | | |

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| PE21.8 | Elicit, document and present a history pertaining to diseases of the Genitourinary tract | | | Y | Bedside, Skillslab | Skill Assessment | | | |
| 21.8.1 | Elicit clinical history pertaining to genitourinary diseases in children. | | | Y | Bedside, Skillslab | Skill Assessment | | | |
| 21.8.2 | Perform a complete physical examination for a child with genitourinary diseases. | | | Y | Bedside, Skillslab | Skill Assessment | | | |
| 21.8.4 | Document the complete history in the Logbook. | | | Y | Bedside, Skillslab | Skill Assessment | | | |
| PE21.9 | Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Icthyosis, anasarca | | | Y | Bedside, Skillslab | Document in Logbook | | | |
| 21.9.1 | Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Icthyosis, anasarca. | | | Y | Bedside, Skillslab | Document in Logbook | | | |
| PE21.10 | Analyze symptom and interpret the physical findings and arrive at an appropriate provisional differential diagnosis | | | Y | Bedside, Skillslab | Logbook | | | |
| 21.10.1 | Analyze symptoms and interpret the physical findings and arrive at an appropriate provisional differential diagnosis. | | | Y | Bedside, Skillslab | Logbook | | | |
| PE21.11 | Perform and interpret the common analytes in a Urine examination | | | Y | Bedside, Skillslab | Skill assessment | | Biochemist r, Path | |
| 21.11.1 | Perform at least one test to elicit Proteinuria. | | | Y | Bedside, Skillslab | Skill assessment | | | |
| 21.11.2 | Interpret the tests for proteinuria and their significance. | | | Y | Bedside, Skillslab | Skill assessment | | | |
| 21.11.3 | Perform test for evaluating Urine PH. | | | Y | Bedside, Skillslab | Skill assessment | | | |
| 21.11.4 | Perform urine microscopy. | | | Y | Bedside, Skillslab | Skill assessment | | | |

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| 21.11.5 | IdentifytheabnormaldepositsandInterprettheurinemicroscopyfindings. | | | Y | Bedside,Skillslab | Skillassessment | | | |
| 21.11.6 | Testtheurineforglucosuria. | | | Y | Bedside,Skillslab | Skillassessment | | | |
| 21.11.7 | Interprettheurinesugarresults. | | | Y | Bedside,Skillslab | Skillassessment | | | |
| PE21.12 | InterpretreportofPlainXRayofKUB | | | Y | Bedside,Skillslab | Logbook | | | Radio D |
| 21.12.1 | Identifyany abnormalitiesonX-Ray KUB. | | | Y | Bedside,Skillslab | Logbook | | | |
| PE21.13 | Enumeratetheindicationsfor andInterpretthewrittenreportofUltrasonogramofKUB | | | Y | Bedside,Skillslab | Logbook | | | Radio D |

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| 21.13.1 | Enumerate indications for Ultrasound KUB. | | | Y | Bedside, Skillslab | Logbook | | | |
| 21.13.2 | Interpret the written report of ultrasound of KUB. | | | Y | Bedside, Skillslab | Logbook | | | |
| 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, hypospadias, Torsion testis, hernia, Hydrocele, Vulval Synechiae | | | Y | Bedside, Skillslab | Bedside, Skillslab | | | Surg |
| 21.14.1 | 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, hypospadias, Torsion testis, hernia, Hydrocele, Vulval Synechiae. | | | Y | Bedside, Skillslab | Bedside, Skillslab | | | |
| PE21.15 | Discuss and enumerate the referral criteria for children with genitourinary disorder | | | Y | Lecture/ SGD | Written/ viva voce | | | |
| 21.15.1 | Enumerate referral criteria in a child with Genitourinary disorder. | | | Y | Lecture/SGD | Written/ viva voce | | | |
| PE21.16 | Counsel/educate a patient for referral appropriately | | | Y | DOAP | Logbook | | AETCOM | |
| 21.16.1 | Counsel/educate a patient for referral appropriately. | | | Y | DOAP | Logbook | | | |
| PE21.17 | Describe the etiology, pathogenesis, grading, clinical features and management of hypertension in children | | | Y | Lecture/ SGD | Written/ viva voce | | | |
| 21.17.1 | Define Hypertension (HTN) & its staging as per AAP 2017 guidelines. | | | Y | Lecture/SGD | Written/ viva voce | | | |
| 21.17.2 | Enumerate causes of hypertension in children. | | | Y | Lecture/SGD | Written/ viva voce | | | |
| 21.17.3 | Describe the clinical presentation of a child with HT. | | | Y | Lecture/SGD | Written/ viva voce | | | |

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| 21.17.4 | List complications of HT in children. | | | Y | Lecture/SGD | Written/ viva voce | | | |
| 21.17.5 | Enumerate investigations for hypertension in children. | | | Y | Lecture/SGD | Written/viva voce | | | |

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| 21.17.6 | Outline treatment of hypertension (as per guidelines) in children. | | | Y | Lecture/SGD | Written/ viva voce | | | |
| Topic: Approach to and recognition of a child with possible Rheumatologic problem Number of competencies: (3) Number of procedures that require recertification: (NIL) | | | | | | | | | |
| PE 22.1 | Enumerate the common Rheumatological problems in children. Discuss the clinical approach to recognition and referral of a child with Rheumatological problem | | | Y | Lecture/SGD | Written / viva voce | | | |
| 22.1.1 | Enumerate the common Rheumatological problems in children. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 22.1.2 | Describe the clinical approach to a child with Rheumatological problem. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 22.1.3 | Enumerate the indications for referral of a child with Rheumatological problem. | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 22.2 | Counsel a patient with Chronic illness | | | N | Bedside clinic/skill lab | Logbook | | | |
| 22.2.1 | Counsel a child /parent of a child with a chronic illness. | | | N | Bedside clinic/skill lab | Logbook | | | |
| PE 22.3 | Describe the diagnosis and management of common vasculitic disorders including Henoch Schonlein Purpura, Kawasaki Disease, SLE, JIA | | | N | Lecture/SGD | Written / viva voce | | | |
| 22.3.1 | List the common causes of vasculitis in children. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 22.3.2 | Enumerate Clinical features suggestive of vasculitis in a child | | | N | Lecture/SGD | Written/viva voce | | | |
| 22.3.3. | List the clinical features of Henoch Schonlein Purpura (HSP). | | | N | Lecture/SGD | Written/viva voce | | | |

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| 22.3.4 | List the diagnostic criteria of HSP. | | | N | Lecture/SGD | Written/viva voce | | | |
| 22.3.5 | Outline the management of a child with HSP. | | | N | Lecture/SGD | Written/viva voce | | | |
| 22.3.6 | Enumerate the clinical features of Kawasaki disease (KD). | | | N | Lecture/SGD | Written/viva voce | | | |

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| 22.3.7 | Defined diagnostic criteria of Kawasaki disease. | | | N | Lecture/SGD | Written/viva voce | | | |
| 22.3.8 | Outline the management of a child with Kawasaki Disease. | | | N | Lecture/SGD | Written/viva voce | | | |
| 22.3.9 | Defined diagnostic criteria of SLE. | | | N | Lecture/SGD | Written/viva voce | | | |
| 22.3.10 | Outline the management of a child with SLE. | | | N | Lecture/SGD | Written/viva voce | | | |
| 22.3.11 | Defined diagnostic criteria of JIA. | | | N | Lecture/SGD | Written/viva voce | | | |
| 22.3.12 | Outline the management of a child with JIA. | | | N | Lecture/SGD | Written/viva voce | | | |
| Topic: Cardiovascular system-Heart Diseases Number of competencies: (18) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE 23.1 | Discuss the Hemodynamic changes, clinical presentation, complications and management of acyanotic Heart Diseases- VSD, ASD and PDA | | | Y | Lecture/SGD | Written/Viva voce | | Physio, Path | |
| 23.1.1 | Explain and illustrate diagrammatically the hemodynamic changes seen in acyanotic congenital heart diseases viz VSD, ASD, PDA. | | | Y | Lecture/SGD | Written/Viva Voce | | Physio, Path | |
| 23.1.2 | Describe the signs and symptoms, timing of presentation of above acyanotic congenital heart diseases. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.1.3 | Enumerate the complications of acyanotic congenital heart diseases. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.1.4 | Outline the medical management of congenital acyanotic heart disease as above. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.1.5 | Enumerate the surgical treatments for VSA, ASD, PDA. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| PE 23.2 | Discuss the Hemodynamic changes, clinical presentation, complications and management of | | | Y | Lecture/SGD | Written/Viva Voce | | Physio, Path | |

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| | Cyanotic Heart Diseases – Fallot Physiology | | | | | | | | |
| 23.2.1 | Enumerate the essential components of Fallot Physiology and List the cardiac conditions with the Fallot Physiology. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.2.2 | Describe and illustrate diagrammatically the hemodynamic changes seen in Fallot Physiology cyanotic congenital heart diseases. | | | Y | Lecture/SGD | Written/Viva Voce | | | |

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| 23.2.3 | Explain the clinical presentation and complication of Fallot Physiology cyanotic congenital heart diseases. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.2.5 | Describe a cyanotic spell and the pharmacological and non-pharmacological management of cyanotic spells. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.2.6 | Describe the treatment options for lesions with Fallot Physiology. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| PE 23.3 | Discuss the etiopathogenesis, clinical presentation and management of cardiac failure in infant and children | | | Y | Lecture/SGD | Written/Viva Voce | | Physio, Path | |
| 23.3.1 | Enumerate causes of congestive heart failure in children as per the age of presentation. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.3.2 | Describe the hemodynamic changes in congestive heart failure. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.3.3 | Describe the signs and symptoms of left side, right side and combined congestive heart failure. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.3.4 | Enumerate the various management options available for congestive heart failure. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.3.5 | Explain the role of diuretics, inotropes, inodilators, and afterload reducing agents in treatment of CCF. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| PE 23.4 | Discuss the etiopathogenesis, clinical presentation and management of Acute Rheumatic Fever in children | | | Y | Lecture/SGD | Written/Viva Voce | | Physio, Path | |
| 23.4.1 | Explain the etiopathogenesis of Acute rheumatic fever. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.4.2 | Describe the modified Jones criteria to diagnose the Acute rheumatic fever. | | | Y | Lecture/SGD | Written/Viva Voce | | | |

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| 23.4.3 | Describe laboratory changes in Acute rheumatic fever. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| PE 23.5 | Discuss the clinical features, complications, diagnosis, management and prevention of Acute Rheumatic Fever | | | Y | Lecture/SGD | Written/Viva Voce | | Physio, Path | |
| 23.5.1 | Describe the clinical features of acute rheumatic fever. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.5.2 | List the long-term complications of Acute Rheumatic fever. | | | Y | Lecture/SGD | Written/Viva Voce | | | |

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| 23.5.3 | Outline the medical management of acute rheumatic fever. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.5.4 | Discuss strategies for the primary and secondary prevention of acute rheumatic fever. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| PE 23.6 | Discuss the etiopathogenesis, clinical features and management of Infective endocarditis in children | | | Y | Lecture/SGD | Written/Viva Voce | | Physio, Path, Micro | |
| 23.6.1 | Enumerate the common predisposing conditions and etiopathogenesis of Infective endocarditis in children | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.6.2 | List criteria used to diagnose Infective endocarditis. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.6.3 | Describe the clinical features of infective endocarditis in children. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.6.4 | Outline the management of infective endocarditis in children. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.6.5 | State the long-term complications of Infective endocarditis. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 23.6.6 | Enumerate the conditions requiring prophylaxis for infective endocarditis. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| PE 23.7 | Elicit appropriate history for a cardiac disease, analyze 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. | | | Y | Bedside, Skills lab | Bed side/skill assessment | | | |
| 23.7.1 | Elicit appropriate history relevant to the cardiac disease and analyze the importance of 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. | | | Y | Bedside, skills lab | Bed side/skill assessment | | | |

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| 23.7.2 | Document and present the history taken in appropriate manner. | | | Y | Bedside, skills lab | Bedside/skill assessment | | | |
| PE 23.8 | Identify external markers of a cardiac disease e.g. Cyanosis, Clubbing, dependent edema, dental caries arthritis, erythema rash, chorea, subcutaneous nodules, Osler node, Janeway lesions and document | | | Y | Bedside, Skills Lab | Bedside/skill assessment | | | |

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| 23.8.1 | Identify and document the external markers of heart disease in general physical examination e.g. Cyanosis, Clubbing, dependent edema, dental caries, arthritis, erythema rash, chorea, subcutaneous nodules, Osler node, Janeway lesions. | | | Y | Bedside, skills lab | Bed side/skill assessment | | | |
| PE 23.9 | Record pulse, blood pressure, temperature and respiratory rate and interpret as per the age | | | Y | Bedside, Skills lab | Bedside/skill assessment | | | |
| 23.9.1 | Record and demonstrate various parameters of the pulse. | | | Y | Bedside, Skills lab | OSCE/bedside assessment | | | |
| 23.9.2 | Record correctly the systolic and diastolic blood pressure using appropriate equipment. | | | Y | Bedside/skill lab | OSCE/bedside assessment | | | |
| 23.9.3 | Use the age specific nomogram to interpret the BP readings. | | | Y | Bedside, Skills lab | OSCE/bedside assessment | | | |
| 23.9.4 | Measure body temperature using a thermometer. | | | Y | Bedside, Skills lab | OSCE/bedside assessment | | | |
| 23.9.5 | Count the respiratory rate and interpret as per the age. | | | Y | Bedside, Skills lab | OSCE/bedside assessment | | | |
| PE 23.10 | 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 | | | Y | Bedside, Skills lab | Bed side/skill assessment | | | |
| 23.10.1 | Perform independent CV examination looking for precordial bulge and pulsations, auscultation of areas of precordium. | | | Y | Bedside, Skills lab | Bedside, OSCE | | | |

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| 23.10.2 | LookforandmeasureJVP. | | | Y | Bedside,Skillslab | bedside assessment | | | |
| 23.10.3 | Describerelevanceofpercussioninthecardiovascular examination. | | | Y | SGD | Viva | | | |
| 23.10.4 | Documentthefindingsofthecardiovascularandothersystemexam. | | | Y | Bedside,Skillslab | Logbook | | | |
| PE 23.11 | Develop a treatment plan and prescribe appropriatedrugsincludingfluidsincardiacdiseases,anti -failure drugs,andinotropicagents | | | Y | Bedside,Skillslab | written/Vivavoce | | | |
| 23.11.1 | Makeanappropriatetreatmentplanforachildwithcardiacdiseaseincludingantifailure drugs,inotropsandfluids. | | | Y | Bedside class/papercases | OSCE/Logbook | | | |
| PE 23.12 | InterpretchestXrayandrecognizeCardiomegaly | | | Y | Bedside,Skillslab | Logbookentry | | RadioD | |
| 23.12.1 | Calculatecardiothoracicratioandinterpretaccordingtoage. | | | Y | Bedside,Skillslab | vivavoce,OSCE | | RadioD | |
| 23.12.2 | StatefeaturesofcardiomegalyonthechestX-ray. | | | Y | Bedside,Skillslab | OSCE,vivavoce | | RadioD | |
| 23.12.3 | Identifythepathognomonicradiologicalfeatures ofvariouscongenitalheart diseaseson chest xray. | | | Y | Bedside,Skillslab | OSCE,vivavoce | | | |
| 23.12.4 | Identifypleuraleffusionandthepulmonaryedemao nchestX-ray. | | | Y | Bedside,Skillslab | OSCE,vivavoce | | | |
| PE 23.13 | ChooseandInterpretbloodreportsinCardiacillness | | | Y | Bedside,SGD | Logbookentry | | | |
| 23.13.1 | Listbloodtestsrelevantforthecardiacdiseases. | | | Y | Bedside,Skillslab | vivavoce | | | |
| 23.13.2 | Interpretthebloodtestsreportsforthecardiacdisease. | | | Y | Bedside,Skillslab | vivavoce,OSCE | | | |
| PE 23.14 | InterpretPediatricECG | | | Y | Bedside,Skillslab | Logbookentry | | | |
| 23.14.2 | InterpretfewcommonECG abnormalitiesinchildren. | | | Y | SGD,skilllab | OSCE,vivavoce | | | |
| PE 23.15 | UsetheECHOreportsinmanagementofcases | | | Y | Bedside | Logbookentry | | Cardio | |

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| 23.15.1 | Use the ECHO reports in management of cases. | | | Y | Bedside, Skillslab | Logbook entry | | | |
| PE 23.16 | Discuss the indications and limitations of Cardiac catheterization | | | Y | Lecture/ SGD | Written/ Viva Voce | | | |
| 23.16.1 | Enumerate the indications of Cardiac catheterization. | | | Y | Lecture/SGD | Written/ VivaVoce | | | |
| 23.16.2 | List the limitations of Cardiac catheterization. | | | Y | Lecture/SGD | Written/ VivaVoce | | | |
| PE 23.17 | Enumerate some common cardiac surgeries like BT shunt, Potts and Waterston's and corrective surgeries | | | Y | Lecture/ SGD | Written/ Viva Voce | | | |
| 23.17.1 | Enumerate common cardiac surgeries and their indications in children. | | | Y | Lecture/SGD | Written/ VivaVoce | | | |
| PE 23.18 | Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter | | | Y | SGD, Bedside, Skillslab | Document in Logbook, Direct observation, OSCE | | AETCOM | |
| 23.18.1 | Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter. | | | Y | Bedside, Skillslab | Direct observation, OSCE | | AETCOM | |
| 23.18.2 | Demonstrate empathy while dealing with parents of children with cardiac diseases in every contact. | | | Y | Bedside, Skillslab | Direct observation, OSCE | | AETCOM | |
| Topic: Diarrhoeal diseases and Dehydration Number of competencies: (17) Number of procedures that require certification: (03) | | | | | | | | | |
| PE 24.1 | Discuss the etiopathogenesis, classification, clinical presentation and management of diarrheal diseases in children. | | | Y | Lecture/ SGD | Written / vivavoce | | Path Micro | |
| 24.1.1 | Explain etiopathogenesis of Diarrheal diseases in children. | | | Y | Lecture/SGD | Written/ VivaVoce | | Path Micro | |

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| 24.1.2 | Classify Diarrheal disease based on duration and etiology. | | | Y | Lecture/SGD | Written/Viva Voce | | Path Micro | |
| 24.1.3 | Describe symptoms and signs of Diarrheal disease in children. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 24.1.4 | Enumerate investigations required for Diarrheal disease in children. | | | Y | Lecture/SGD | Written/Viva Voce | | Path Micro | |
| 24.1.5 | Outline the treatment plan of Diarrheal disease in children. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| PE 24.2 | Discuss the classification and clinical presentation of various types of diarrheal dehydration | | | Y | Lecture/SGD | Written/viva voce | | Path, Micro | |
| 24.2.1 | Enumerate all the signs and symptoms of dehydration in children. | | | Y | Lecture/Small group activity | Written/Viva Voce | | | |
| 24.2.2 | Classify dehydration as per WHO guidelines. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 24.2.3 | Enumerate the clinical features of dehydration of different severity. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| PE 24.3 | Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS in children | | | Y | Lecture/SGD | Written/viva voce | | | |
| 24.3.1 | Explain pathophysiology of fluid and electrolyte loss in Diarrheal diseases. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 24.3.2 | State the basis of fluid and electrolyte replacement in Diarrheal diseases. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 24.3.3 | Recall composition of WHO standard ORS. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 24.3.4 | Recall composition of other type of ORS viz Reso Mal, Low osmolarity ORS. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 24.4 | Discuss the types of fluid used in Pediatric diarrheal | | | Y | Lecture/SGD | Written/viva voce | | | |

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| | diseases and their composition | | | | | | | | |
| 24.4.1 | Enumerate the types of fluids used in management of dehydration in children. | | | Y | LectureSGD | Written/Viva voce | | | |
| 24.4.2 | Describe the composition of Ringer lactate and Normal saline and rationale of their use in correction of dehydration. | | | Y | LectureSGD | Written/Viva voce | | | |
| PE 24.5 | Discuss the role of antibiotics, antispasmodics, antisecretory drugs, probiotics, antiemetics in acute diarrheal diseases | | | Y | Lecture/SGD | Written / viva voce | | Pharm, Micro | |
| 24.5.1 | Describe harmful practices in treatment of diarrheal diseases in children | | | Y | LectureSGD | Written/Viva voce | | | |
| 24.5.2 | Enumerate the indications of antibiotic therapy in diarrheal diseases in children | | | Y | LectureSGD | Written/Viva voce | | | |
| 24.5.3 | Describe role, dosage and duration of Zinc therapy in Diarrheal diseases in children | | | Y | LectureSGD | Written/Viva voce | | | |
| 24.5.4 | Interpret selective role of probiotics, antisecretory drugs, antispasmodics and antiemetics in acute diarrheal diseases. | | | Y | LectureSGD | Written/Viva voce | | | |
| PE 24.6 | Discuss the causes, clinical presentation and management of persistent diarrhea in children | | | Y | Lecture/SGD | Written/viva voce | Nil | Micro | |
| 24.6.1 | Define Persistent diarrhea in children. | | | Y | LectureSGD | Written and viva voce | | | |
| 24.6.2 | Enumerate causes of persistent diarrhea in children. | | | Y | SGD | Written and viva voce | | | |
| 24.6.3 | Describe clinical presentation in child with persistent diarrhea. | | | Y | LectureSGD | Written and viva voce | | | |

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| 24.6.4 | List investigations in persistent diarrhea. | | | Y | Lecture/SGD | Written and viva voce | | | |
| 24.6.5 | Outline the treatment plan in persistent diarrhea. | | | Y | Lecture/SGD | Written and viva voce | | | |
| PE 24.7 | Discuss the causes, clinical presentation and management of chronic diarrhea in children. | | | Y | Lecture/SGD | Written/ via voce | | | |
| 24.7.1. | Define chronic diarrhea in children. | | | Y | Lecture/SGD | Written/viva | | | |
| 24.7.2 | Enumerate the common causes of chronic diarrhea in children. | | | Y | Lecture/SGD | Written and viva voce | | | |
| 24.7.3 | Describe symptoms and signs of chronic diarrhea. | | | Y | Lecture/SGD | Written and viva voce | | | |
| 24.7.4 | Enumerate investigations for chronic diarrhea. | | | Y | Lecture/SGD | Written and viva voce | | | |
| 24.7.5 | Outline treatment of chronic diarrhea. | | | Y | Lecture/SGD | Written and viva voce | | | |
| 24.7.6 | Identify need of referral in a case of chronic diarrhea. | | | Y | Lecture/SGD | Written and viva voce | | | |
| PE 24.8 | Discuss the causes, clinical presentation and management of dysentery in children | | | Y | Lecture/SGD | Written/viva voce | Nil | Pharm, Micro | |
| 24.8.1 | Define dysentery in children. | | | Y | Lecture/SGD | Written, Viva voce | | | |
| 24.8.2 | Enumerate the etiological agents causing dysentery in children. | | | Y | Lecture/SGD | Written/viva | | Micro | |
| 24.8.3 | Describe symptoms and signs of dysentery in children. | | | Y | Lecture/SGD | Written, Viva voce | | | |
| 24.8.4 | Outline the antibiotic therapy in children with dysentery. | | | Y | Lecture/SGD | Written/viva | | Pharm | |

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| PE 24.9 | Elicit, document and present history pertaining to diarrheal diseases | | | Y | Bedside, Skill lab | Clinical case/OSCE/skill assessment | | | |
| 24.9.1 | Elicit history for diarrheal diseases in children. | | | Y | Bedside, Skill lab | Clinical case/OSCE/skill assessment | | | |
| 24.9.2 | Document gathered information in history sheet. | | | Y | Bedside, Skill lab | clinical case/skill assessment | | | |
| 24.9.3 | Present the history pertaining to diarrheal diseases. | | | Y | Bedside, Skill lab | Clinical case, skill assessment, | | | |
| PE 24.10 | Assess for signs of dehydration, document and present | | | Y | Bedside, skill lab | Skill Assessment | | | |
| 24.10.1 | Assess clinical signs of dehydration. | | | Y | Bedside, skill lab | Skill Assessment | | | |
| 24.10.2 | Correlate clinical signs to severity of dehydration. | | | Y | Bedside, skill lab | Skill Assessment | | | |
| 24.10.3 | Document and present the signs of dehydration pertaining to diarrheal diseases. | | | Y | Bedside, skill lab | Skill Assessment | | | |
| PE 24.11 | Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and refer | | | Y | Bedside/skill lab | Document in Logbook | | | |
| 24.11.1 | Apply risk stratification of children with diarrheal dehydration as per IMNCI guidelines. | | | Y | Bedside/skill lab | Document in Logbook | | | |
| 24.11.2 | Identify need for referral in a case of diarrheal dehydration based on risk stratification as per IMNCI. | | | Y | Bedside, Skill lab | Document in Logbook | | | |
| PE 24.12.1 | Perform and interpret stool examination including Hanging Drop | | | N | Bedside, Skill lab | Document in Logbook | | Micro | |

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| 24.12.1 | Prepareslideforstoolexaminationunder microscope. | | | N | Bedside,Skilllab | Documentin Logbook | | | |
| 24.12.2 | Correctlyidentifypathogenaftermicroscopicexaminationofstool. | | | N | Bedside,Skilllab | Document inLogbook | | | |
| 24.12.3 | Correctlyperformhangingdroppreparationfromstool samplegiven. | | | N | Bedside,Skilllab | Documentin Logbook | | | |
| PE 24.13 | InterpretRFTandelectrolyte report | | | Y | Bedside/skilllab / SGD | Documentin Logbook | | | |
| 24.13.1 | Interpretthegivenreportsfor valuesofurea,creatinine,sodiumandpotassium. | | | Y | Bedside/skilllab/SGD | Document inLogbook | | | |
| PE 24.14 | PlanfluidmanagementaspertheWHOcriteria | | | Y | Bedside,Small groupactivity | Skilllab | | | |
| 24.14.1 | Select appropriate type of fluid and Calculate amount, routeanddurationoftherapyoffluidtobegivenasperPlanA,foragiven ageand weight ofa child. | | | Y | Bedside,Smallgroupactivity | Skilllab | | | |
| 24.14.2 | Select appropriate type of fluid and Calculate amount, routeanddurationoftherapyoffluidtobegivenasper PlanB,for agivenageandweight ofa child. | | | Y | Bedside,Smallgroupactivity | Skilllab | | | |
| 24.14.3 | SelectappropriatetypeoffluidandCalculateamount, routeanddurationoftherapyoffluidtobegivenasper Plan Cfor ageand weightofachild. | | | Y | Bedside,Smallgroupactivity | Skilllab | | | |
| PE 24.15 | PerformNGtubeinsertioninamanikin | | | Y | DOAPsession | Documentin Logbook | 2 | | |
| 24.15.1 | Identifysizeofnasogastrictubeasperageof child. | | | Y | DOAPsession | Documentin Logbook | 2 | | |
| 24.15.2 | DemonstratelandmarksformeasurementoflengthofNGtubeto beinserted on a manikin. | | | Y | DOAPsession | Document inLogbook | 2 | | |

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| 24.15.3 | Correctly measure the length of NG tube to be inserted. | | | Y | DOAP session | Document in Logbook | 2 | | |
| 24.15.4 | Insert the tube and check its position. | | | Y | DOAP session | Document in Logbook | 2 | | |
| 24.15.5 | Demonstrate all the steps to check correct position of NG tube and fix NG tube. | | | Y | DOAP session | Document in Logbook | 2 | | |
| PE 24.16 | Perform IV cannulation in a model | | | Y | DOAP session | Document in Logbook | 2 | | |
| 24.16.1 | Identify size of IV cannula as per age of child. | | | Y | DOAP session | Document in Logbook | 2 | | |
| 24.16.2 | Demonstrate all steps of infection control policy like hand washing, wearing gloves, proper filling of fluid in syringe. | | | Y | DOAP session | Document in Logbook | 2 | | |
| 24.16.3 | Demonstrate common sites for IV cannulation in child and preparation of site. | | | Y | DOAP session | Document in Logbook | 2 | | |
| 24.16.4 | Correctly insert IV cannula in a model and look for free flow of blood. | | | Y | DOAP session | Document in Logbook | 2 | | |
| 24.16.5 | Properly fix IV cannula and correctly demonstrate disposal of biomedical waste. | | | Y | DOAP session | Document in Logbook | 2 | | |
| PE 24.17 | Perform Interosseous insertion model | | | Y | DOAP session | Document in Logbook | 2 | | |
| 24.17.1 | Identify site for intraosseous insertion in children based on landmarks. | | | Y | DOAP session | Document in Logbook | 2 | | |
| 24.17.2 | Demonstrate all steps of infection control. | | | Y | DOAP session | Document in Logbook | 2 | | |
| 24.17.3 | Insert the Intraosseous cannula and demonstrate how to check its proper insertion in model. | | | Y | DOAP session | Document in Logbook | 2 | | |

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| 24.17.4 | FixIntraosseouscannulaandcorrectlydemonstrate disposal ofbiomedical waste. | | | Y | DOAPsession | Documentin Logbook | 2 | | |
| Topic:Malabsorption Numberofcompetencies:(1) Numberofprocedureshatrequirecertification:(N L) | | | | | | | | | |
| PE25.1 | Discuss the etiopathogenesis, clinical presentation andmanagement of Malabsorption in Children and itscausesincludingceliacdisease. | | | N | Lecture/SGD | Written/ vivavoce | | Path | |
| 25.1.1 | Definemalabsorptioninchildren. | | | N | Lecture/SGD | Written/Viva Voce | | | |
| 25.1.2 | Enumeratecausesofmalabsorptionin children. | | | N | Lecture/SGD | Written/ VivaVoce | | | |
| 25.1.3 | Describeetiopathogenesisofmalabsorptioninchild ren. | | | N | Lecture/SGD | Written/ VivaVoce | | | |
| 25.1.4 | Describecommonsymptomsandsignsofmalabsorp tionin children. | | | N | Lecture/SGD | Written/Viva Voce | | | |
| 25.1.5 | Describepresentationsofceliacdiseaseinchildren. | | | N | Lecture/SGD | Written/ VivaVoce | | | |
| 25.1.6 | Enumerateinvestigationsincaseofceliacdisease. | | | N | Lecture/SGD | Written/ VivaVoce | | | |
| 25.1.7 | Enumeratestepsoftreatmentplanin caseofceliacdisease. | | | N | Lecture/SGD | Written/Viva Voce | | | |
| Topic:Acuteandchronicliverdisorders Numberofcompetencies:(13) Numberofprocedureshatrequirecertification:(N L) | | | | | | | | | |
| PE26.1 | Discuss the etiopathogenesis, clinical features andmanagementofacutehepatitis inchildren | | | Y | Lecture/ SGD | Written/ VivaVoce | | Path Micr o | |
| 26.1.1 | DefineAcuteHepatitisinchildren. | | | Y | Lecture/SGD | Written/Viva Voce | | | |

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| 26.1.2 | Enumerate common causes of Acute Hepatitis in children. | | | Y | Lecture/SGD | Written/ Viva Voce | | | |
| 26.1.3 | Describe pathogenesis of Acute Hepatitis in children. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 26.1.4 | Describe the clinical features and complications of Acute Hepatitis. | | | Y | Lecture/SGD | Written/ Viva Voce | | | |
| 26.1.5 | List the investigations required for diagnosis of Acute Hepatitis. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 26.1.6 | Describe the management and prevention of Acute Hepatitis. | | | Y | Lecture/SGD | Written/ Viva Voce | | | |
| PE 26.2 | Discuss the etiopathogenesis, clinical features and management of Fulminant Hepatic Failure in children | | | Y | Lecture/ SGD | Written/Viva Voce | | Path Micro | |
| 26.2.1 | Define Fulminant Hepatic Failure in Children. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 26.2.2 | Enumerate the factors which precipitate Fulminant Hepatic Failure. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 26.2.3 | Describe the pathogenesis of Fulminant Hepatic Failure. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 26.2.4 | Describe the clinical features of Fulminant Hepatic Failure. | | | Y | Lecture/SGD | Written/Viva Voce | | | |
| 26.2.5 | Enumerate the investigations for a child with Fulminant Hepatic Failure. | | | Y | Lecture/Small group activity | Written/Viva Voce | | | |
| 26.2.6 | Describe the management of Fulminant Hepatic Failure. | | | Y | Lecture/Small group activity | Written/Viva Voce | | | |
| PE 26.3 | Discuss the etiopathogenesis, clinical features and management of chronic liver diseases in children. | | | Y | Lecture/ SGD | Written/Viva Voce | | Path Micro | |
| 26.3.1 | Define Chronic Liver Disease in children. | | | Y | Lecture/SGD | Written/Viva Voce | | | |

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| 26.3.2 | Enumeratethecausesofchronicliverdiseasesinchildren. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 26.3.3 | DiscusshepathogenesisofcommonchronicLiverDiseases. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 26.3.4 | Describetheclinicalfeaturesofchronicliverdisease. | | | Y | Lecture/SGD | Written/Vivavoce | | | |

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| 26.3.5 | EnumeratetheinvestigationsfordiagnosisofChronicLiverDisease. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 26.3.6 | DescribethemanagementofChronicliverdisease. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| PE 26.4 | Discuss the etiopathogenesis, clinical features and management of Portal Hypertension in children | | | Y | Lecture/SGD | Written/Viva voce | | Path | |
| 26.4.1 | Define Portal Hypertension in children. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 26.4.2 | Classify different types of portal hypertension. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 26.4.3 | Enumerate the causes of portal hypertension. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 26.4.4 | Explain the pathogenesis of portal hypertension. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 26.4.5 | Describe the clinical features of portal hypertension. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| 26.4.6 | Outline the management of portal hypertension. | | | Y | Lecture/SGD | Written/Vivavoce | | | |
| PE 26.5 | Elicit document and present the history related to diseases of Gastrointestinal system | | | Y | Bedside, Skills Lab | Skills station/bedside/OSCE | | | |
| 26.5.1 | Elicit the history for diseases of Gastrointestinal system. | | | Y | Bedside, Skills Lab | Skills station/bedside/OSCE | | | |
| 26.5.2 | Document the history. | | | Y | Bedside, Skills Lab | Skills station | | | |
| 26.5.3 | Present the history related to Gastrointestinal system. | | | Y | Bedside, Skills Lab | Skills station/bedside | | | |
| PE 26.6 | Identify external markers for Gland Liver disorders e.g. Jaundice, Pallor, Gynecomastia, Spider angioma, Palmar erythema, Ichthyosis, Caput medusa, Clubbing, Failing to thrive, | | | Y | Bedside, Skills Lab | Skill Assessment/OSCE | | | |

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| | VitaminAandDdeficiency | | | | | | | | |
| 26.6.1 | Detect Jaundice, pallor, Gynecomastia, Spider angioma,clubbing,Caputmedusa,Ichthyosisandfail uretothrive,signs ofvitamindeficiency. | | | Y | Bedside,SkillsLab | SkillAssess ment/OS CE | | | |

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| PE26.7 | Perform examination of the abdomen, demonstrate organomegaly, ascites etc. | | | Y | Bedside clinic, Skills Lab | Skill Assessment | | | |
| 26.7.1 | Perform an examination of the abdomen in children of different ages. | | | Y | Bedside clinic, Skills Lab | Skill Assessment | | | |
| 26.7.2 | Detect organomegaly on abdominal examination giving details of the affected organ/s. | | | Y | Bedside clinic, Skills Lab | Bedside/skill lab/OSCE | | | |
| 26.7.3 | Examine for ascites in children. | | | Y | Bedside clinic, Skills Lab | Skill Assessment | | | |
| 26.7.4 | Examine for other palpable masses in abdomen. | | | Y | Bedside clinic, Skills Lab | Skill Assessment | | | |
| PE 26.8 | Analyze symptoms and interpret physical signs to make a provisional/differential diagnosis | | | Y | Bedside clinic, Skills Lab | Skill Assessment | | | |
| 26.8.1 | Analyze the symptoms in a child with gastrointestinal disorder. | | | Y | Bedside clinic, Skills Lab | Skill Assessment | | | |
| 26.8.2 | Interpret the physical signs in a child with gastrointestinal disorder. | | | Y | Bedside clinic, Skills Lab | Skill Assessment | | | |
| 26.8.3 | Formulate a provisional and differential diagnosis related to clinical presentation. | | | Y | Bedside clinic, Skills Lab | Skill Assessment | | | |
| PE26.9 | Interpret Liver Function Tests, viral markers, Ultrasound report | | | Y | Bedside/skill lab | Bedside/OSCE | | Path Biochemistry | |
| 26.9.1 | Interpret the given reports of liver function tests. | | | Y | Bedside/skill lab | Bedside/OSCE | | | |
| 26.9.2 | Interpret the viral markers related to viral hepatitis. | | | Y | Bedside/skill lab | Bedside/OSCE | | | |
| 26.9.3 | Interpret the given report of abdominal/liver Ultrasonography. | | | Y | Bedside clinic, Skills Lab | Skill Assessment | | | |

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| PE 26.10 | Demonstrate the technique of liver biopsy in a simulated environment | | | Y | DOAP | Document in Logbook | | | |
| 26.10.1 | Demonstrate the technique of liver biopsy in a simulated environment. | | | Y | DOAP | Document in Logbook | | | |
| PE 26.11 | Enumerate the indications for Upper Glendoscopy | | | Y | Lecture/SGD | Written, Viva voce | | | |
| 26.11.1 | Enumerate the indications of upper Glendoscopy in children. | | | Y | Lecture/SGD | Written, Viva voce | | | |

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| PE26.12 | Discuss the prevention of HepB infection- Universal precautions and Immunization | | | Y | Lecture/SGD | Written, Viva voce | | Micro | |
| 26.12.1 | Enumerate different preventive measures against the hepatitis B virus infection. | | | Y | Lecture/SGD | Written, Viva voce | | | |
| 26.12.2 | List universal precautions. | | | Y | Lecture/SGD | Written, Viva voce | | | |
| 26.12.3 | Describe the immunization schedule of Hepatitis B. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 26.13 | Counsel and educate patients and their family appropriately on liver diseases | | | Y | Bedside clinic, Skills Lab | Document in Logbook | | | |
| 26.13.1 | Counsel the family on liver disease in the child. | | | Y | Bedside clinic Skills Lab | Document in Logbook | | | |
| 26.13.2 | Educate the family about prevention of liver disease. | | | Y | Bedside clinic, Skills Lab | Document in Logbook | | | |
| Topic: Pediatric Emergencies – Common Pediatric Emergencies Number of competencies: (35) Number of procedures that require certification: (10) | | | | | | | | | |
| PE 27.1 | List the common causes of morbidity and mortality in the under five children | | | Y | Lecture/SGD | Written/viva-voce | | | |
| 27.1.1 | Enumerate the common causes of morbidity and mortality in under five children. | | | Y | Lecture/SGD | Written/viva | | | |
| PE 27.2 | Describe the etiology, pathogenesis, clinical approach and management of cardiorespiratory arrest in children | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.2.1 | Enumerate the causes of cardiorespiratory arrest in children. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.2.2 | Discuss the pathogenesis of respiratory and cardiac failure leading to cardiorespiratory arrest. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.2.3 | Describe the clinical approach to a child in cardiorespiratory arrest. | | | Y | Lecture/SGD | Written/Viva voce | | | |

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| 27.2.4 | Describe the management of a child in cardiorespiratory arrest. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 27.3 | Describe the etiology of respiratory distress in children | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.3.1 | Enumerate the causes of respiratory distress in children of different age groups. | | | Y | Lecture/SGD | Written/Viva voce | | | |

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| 27.3.2 | Explain the pathogenesis of respiratory distress in children. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 27.4 | Describe the clinical approach and management of respiratory distress in children | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.4.1 | Discuss the clinical approach based on history, examination and investigational algorithm of children of different ages presenting with respiratory distress. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.4.2 | Outline the treatment in children with respiratory distress. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 27.5 | Describe the etiology, pathogenesis, clinical approach and management of Shock in children | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.5.1 | Define shock including different types of shock. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.5.2 | Enumerate the causes leading to different types of shock viz hypovolemic, septic and cardiogenic shock. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.5.3 | Explain pathogenesis of different types of shock in children. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.5.4 | Describe clinical approach to identify different types of shock. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.5.4 | Outline an algorithm approach to the management of different types of shock in children. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 27.6 | Describe the etiology, pathogenesis, clinical approach and management of Status epilepticus | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.6.1 | Define Status epilepticus. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.6.2 | Discuss the pathogenesis of status epilepticus in children. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.6.3 | Discuss the underlying diagnosis based on clinical history, examination and investigational algorithm in | | | Y | Lecture/SGD | Written/Viva voce | | | |

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| | achildwithstatus epilepticus. | | | | | | | | |
| 27.6.4 | Outlinethetreatmentalgorithmasperrecentguide linesinachild with statusepilepticus. | | | Y | Lecture/SGD | Written/ Vivavoce | | | |
| PE 27.7 | Describetheetiopathogenesis,clinicalapproach and managementofanunconsciouschild | | | Y | Lecture,SGD | Written/Viv a voce | | | |

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| PE27.7.1 | Define different levelsofconsciousnessinchildren. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.7.2 | Enumeratethe causesofaltered sensorium/comain children. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.7.3 | Explainpathogenesisofaltered sensorium/coma. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.7.4 | Describetheclinicalapproachbasedonclinicalhistory, examinationina childwithaltered sensorium/coma. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.7.5 | Listtheinvestigationsasguided bytheclinical assessmentofthepatient. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.7.4 | Outline thetreatmentplanfor acomatose child. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 27.8 | Discuss the common types, clinical presentation and management of poisoning in children | | | Y | Lecture, Small group discussion | Written/Viva voce | | | |
| 27.8.1 | Enumeratethe common poisoning in children. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.8.1 | Elaborate on the clinical signs and symptoms of common poisoning in children (kerosene, organophosphorus, paracetamol and corrosive). | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.8.1 | Discuss the management of common poisoning in children (kerosene, organophosphorus, paracetamol and corrosive). | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 27.9 | Discuss oxygen therapy, in Pediatric emergencies and modes of administration | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.9.1 | Enumerate the indications of oxygen therapy in pediatric emergencies. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.9.2 | Describe different modalities for oxygen delivery. | | | Y | Lecture/SGD | Written/Viva voce | | | |

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| PE 27.10 | Observe the various methods of administering oxygen | | | Y | Demonstration | Document in Logbook | | | |
| 27.10.1 | Observed and noted various methods of oxygen delivery. | | | Y | Demonstration Bedside | Document in Logbook | | | |
| 27.10.2 | Monitor oxygen delivery in a patient. | | | Y | Demonstration Bedside | Document in Logbook | | | |

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| PE 27.11 | Explain the need and process of triage of sick children brought to health facility | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 27.11.1 | Discuss the need of triage of sick child especially in resource limited setting. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 27.11.2 | Explain the process of triage of sick children. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| PE 27.12 | Enumerate emergency signs and priority signs | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 27.12.1 | Enumerate various emergency and priority signs in a sick child. | | | Y | Lecture, SGD, | Written/Viva voce | | | |
| PE 27.13 | List the sequential approach of assessment of emergency and priority signs | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 27.13.1 | Discuss the systematic approach for assessing a sick child based on emergency and priority signs as per WHO-ETAT guidelines. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| PE 27.14 | Assess emergency signs and prioritize | | | Y | DOAP session, Skills lab | Skills Assessment | | | |
| 27.14.1 | Assess and recognize emergency signs in a sick child and prioritize treatment. | | | Y | Bedside, skills lab | Skill assessment | | | |
| PE 27.15 | Assess airway and breathing: recognize signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting | | | Y | DOAP session, Skills lab | Skills Assessment | | | |
| 27.15.1 | Recognize signs of severe respiratory distress by assessing cyanosis, severe chest indrawing and grunting. | | | Y | Bedside, DOAP session | skill assessment, OSCE with video | 3 | | |
| PE 27.16 | Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open | | | Y | DOAP session, Skills Lab | Skills Assessment | 3 | | |

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| | airway in a simulated environment | | | | | | | | |
| 27.16.1 | Demonstrate the methods of opening the airway in infants and children by head tilt-chin lift and jaw thrust methods on mannequin. | | | Y | BL Straining session using mannequin | OSCE using mannequin | 3 | | |
| PE 27.17 | Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate | | | Y | DOAP session, Skills Lab | Skills Assessment | 3 | | |

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| 27.17.1 | Demonstrate the appropriate use of various oxygen delivery systems in different clinical scenarios along with recommended flow rate of oxygen | | | Y | DOAP session, Skills Lab | Skill assessment, OSCE using mannequin | 3 | | |
| PE 27.18 | Assess airway and breathing: perform assisted ventilation by Bag and mask in a simulated environment | | | y | DOAP session, Skills Lab | Skill assessment, OSCE using mannequin | 3 | | |
| 27.18.1 | Demonstrate assisted ventilation using bag and mask in a simulated environment | | | y | DOAP session, Skills Lab | Skill assessment, OSCE using mannequin | 3 | | |
| PE 27.19 | Check for signs of shock i.e. pulse, Blood pressure, CRT | | | y | DOAP session, Skills Lab | Skill assessment, | 3 | | |
| 27.19.1 | Check pulse as a sign of shock. | | | Y | DOAP session, Skills Lab | Skill assessment, | 3 | | |
| 27.19.2 | Measure blood pressure to check for shock. | | | Y | DOAP session, Skills Lab | Skill assessment, | 3 | | |
| 27.19.3 | Assess CRT for checking for shock. | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| PE 27.20 | Secure an IV access in a simulated environment | | | Y | DOAP session, Skills Lab | Skill assessment, | 3 | | |
| 27.20.1 | Collect all the necessary items for IV access. | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.20.2 | Identify an appropriate site and vein. | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.20.3 | Obtain IV access in the manikin. | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.20.4 | Secure the IV line appropriately. | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |

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| 27.20.5 | Maintainasepsisthroughouttheprocedure. | | | Y | DOAPsession,Skill s Lab | Skillassessment | 3 | | |
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| PE 27.21 | Choose the type of fluid and calculate the fluid requirement in shock | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.21.1 | Choose appropriate fluid according to different types of shock. | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.21.2 | Calculate the fluid for managing different types of shock at different age/size of the child. | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| PE 27.22 | 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 | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.22.1 | Assess level of consciousness | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.22.2 | Provide emergency treatment to a child with convulsions/ coma including ABCDE | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.22.3 | Administer IV/per rectal Diazepam for a convulsing child in a simulated environment | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.22.4 | Position an unconscious child appropriately. | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.22.5 | Position a child with suspected trauma keeping the necessary precautions. | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| PE 27.23 | Assess signs of severe dehydration | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| 27.23.1 | Identify signs of severe dehydration | | | Y | DOAP session, Skills Lab | Skill assessment | 3 | | |
| PE 27.24 | Monitoring and maintaining temperature: define hypothermia. Describe the clinical features, complications and management of H | | | Y | Lecture/SGD | Written/ Vivavoce | | | |

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| | ypothermia | | | | | | | | |
| 27.24.1 | DefineHypothermia. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.24.2 | DescribeclinicalfeaturesofHypothermia. | | | Y | Lecture/SGD | Written/ Vivavoce | | | |

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| 27.24.3 | Enumeratecomplicationsofhypothermia. | | | Y | Lecture/SGD | Written/ Vivavoce | | | |
| 27.24.4 | DescribemanagementofHypothermia. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 27.25 | Describetheadvantagesandcorrectmethodof keepinganinfant warmbyskintoskincontact | | | Y | Lecture/SGD | Written/Viv a voce | | | |
| 27.25.1 | Describethecorrectmethodofkeepinginfantwar mbyskintoskincontact | | | Y | Lecture/SGD | Written/ Vivavoce | | | |
| 27.25.2 | Enumeratetheadvantagesofprovidingwarmthbysk into skincontact | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 27.26 | Describetheenvironmentalmeasurestomaintai n temperature | | | Y | Lecture/SGD | Written/Viv a voce | | | |
| 27.26.1 | Describetheenvironmentalmeasuresto maintaintemperatureinsick children. | | | Y | Lecture/SGD | Written/ Vivavoce | | | |
| PE 27.27 | Assessforhypothermiaandmaintaintemperatu re | | | Y | SkillsLab | Skill assessment | | | |
| 27.27.1 | Assessasickchildforhypothermia. | | | Y | SkillsLab | Skillassessm ent | | | |
| 27.27.2 | Applymeasurestomaintaintemperatureinsickchild ren. | | | Y | SkillsLab | Skillassessm ent | | | |
| PE 27.28 | ProvideBLSforchildreninmanikin | | | Y | SkillsLab | Skill assessment | 3 | | |
| 27.28.1 | PerformallthestepsofBLSinchildren. | | | Y | SkillsLab | Skillassessm ent | 3 | | |
| PE 27.29 | Discussthecommoncauses,clinicalpresentatio n, medico-legalimplicationsofabuse | | | Y | Lecture/SGD | Written/Viv a voce | | | |
| 27.29.1 | Enumeratecommoncausesofchildabuse. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 27.29.2 | Describeclinicalpresentationsofchildabuse. | | | Y | Lecture/SGD | Written/ Vivavoce | | | |

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| 27.29.3 | Discussmedicolegalimplicationsofchildabuse. | | | Y | Lecture/SGD | Written/Viva voce | | | |
| PE 27.30 | Demonstrateconfidentialitywithregardtoabuse | | | Y | Skilllab,simulated patients | Skill assessment | | | |
| 27.30.1 | Maintains confidentiality with regard to child abuse in asimulatedsetting | | | Y | Skilllab,simulatedpatients | Skillassessment | | | |

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| PE28.1 | Discuss the etiopathogenesis, clinical features and management of Nasopharyngitis | | | Y | Lecture,SGD | Written/ Vivavoce | | ENT | |

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| 28.1.1 | Enumerate the etiological factors for Nasopharyngitis. | | | Y | lecture, SGD | Written/Vivavoce | | | |
| 28.1.2 | Describe the clinical features of Nasopharyngitis | | | Y | lecture, SGD | Written/Vivavoce | | | |
| 28.1.3 | Outline the management of Nasopharyngitis | | | Y | lecture, SGD | Written/Vivavoce | | | |
| PE28.2 | Discuss the etiology and pathogenesis of Pharyngotonsillitis | | | Y | Lecture, SGD | Written/Vivavoce | | ENT | |
| 28.2.1 | Enumerate the etiological factors causing Pharyngotonsillitis. | | | Y | lecture, SGD | Written/Vivavoce | | | |
| PE28.3 | Discuss the clinical features and management of Pharyngotonsillitis | | | Y | Lecture, SGD | Written/Vivavoce | | ENT | |
| 28.3.1 | Describe the clinical features of Pharyngotonsillitis. | | | Y | lecture, SGD | Written/Vivavoce | | | |
| 28.3.2 | Outline the management of acute Pharyngotonsillitis. | | | Y | lecture, SGD | Written/Vivavoce | | | |
| PE28.4 | Discuss the etiology and pathogenesis, clinical features and management of Acute Otitis Media (AOM) | | | Y | Lecture, SGD | Written/Vivavoce | | ENT | |
| 28.4.1 | List the common etiologic agent causing Acute Otitis Media (AOM) | | | Y | lecture, SGD | Written/Vivavoce | | | |
| 28.4.2 | Discuss the pathogenesis of Acute Otitis Media (AOM), | | | Y | lecture, SGD | Written/Vivavoce | | | |
| 28.4.3 | Enumerate the clinical features of Acute Otitis Media (AOM), recurrent AOM and OM with effusion | | | Y | lecture, SGD | Written/Vivavoce | | | |
| 28.4.4 | Outline the management of Acute Otitis Media (AOM), recurrent AOM and OM with effusion | | | Y | lecture, SGD | Written/Vivavoce | | | |
| PE28.5 | Discuss the etiology and pathogenesis, clinical features and management of Acute Otitis Media (AOM) | | | Y | Lecture, SGD | Written/Vivavoce | | ENT | |

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| | managementofEpiglottitis | | | | | voce | | | |
| 28.5.1 | DescribetheetiopathogenesisofEpiglottitis | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 28.5.2 | EnumeratetheclinicalfeaturesofEpiglottitis | | | Y | Lecture,SGD | Written/ Vivavoce | | | |

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| 28.5.3 | Outline the management of Epiglottitis including acute care | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| PE28.6 | Discuss the etiopathogenesis, clinical features and management of Acute laryngo-tracheo-bronchitis | | | Y | Lecture, Small group Discussion | Written/ Viva voce | | ENT | |
| 28.6.1 | Describe the etiopathogenesis of Acute laryngo-tracheo-bronchitis (croup) | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 28.6.2 | Describe the clinical features of Acute laryngo-tracheo-bronchitis | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 28.6.3 | Outline the management of Acute laryngo-tracheo-bronchitis. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| PE28.7 | Discuss the etiology, clinical features and management of Stridor in children | | | Y | Lecture, SGD | Written/Viva voce | | ENT | |
| 28.7.1 | Enumerate the etiology of stridor in children | | | Y | lecture, SGD | Written/ Viva voce | | | |
| 28.7.2 | Describe the clinical features of stridor in children | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 28.7.3 | Discuss the differential diagnosis of stridor | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 28.7.4 | Outline the management of stridor. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| PE28.8 | Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children | | | Y | Lecture, SGD | Written/ Viva voce | | ENT | |
| 28.8.1 | List the objects commonly aspirated by children | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 28.8.2 | Enumerate the clinical features of FB aspiration | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 28.8.3 | Describe 'Heimlich maneuver' for a child and '5 backslaps and 5 chest thrust' for an infant | | | Y | Lecture, SGD | Written/Viva voce | | | |

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| 28.8.5 | OutlinethemanagementofFBaspiration | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
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| PE28.9 | Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor | | | Y | Bedside, skill lab | Skill Assessment | | ENT | |
| 28.9.1 | Elicit detailed history of a child with upper respiratory problem including stridor | | | Y | Bedside, skill lab | OSCE/Skills Assessment | | | |
| 28.9.2 | Document the history of a child with upper respiratory problem including stridor | | | Y | Bedside, skill lab | Logbook | | | |
| 28.9.3 | Present the history of a child with upper respiratory problem including stridor | | | Y | Bedside, skill lab | Logbook | | | |
| PE28.10 | Perform otoscopic examination of the ear | | | Y | DOAP session | Skills Assessment | | ENT | |
| 28.10.1 | Counsel the parent and child to prepare for otoscopic examination | | | Y | Bedside, skill lab | OSCE/Skills Assessment | | | |
| 28.10.2 | Position the child and perform otoscopic examination | | | Y | Bedside, skill lab | OSCE/Skills Assessment | | | |
| PE28.11 | Perform throat examination using tongue depressor | | | Y | DOAP session | Skills Assessment | | ENT | |
| 28.11.1 | Counsel the parent and child to prepare for throat examination | | | Y | Bedside, skill lab | OSCE/Skills Assessment | | | |
| 28.11.2 | Position the child and perform throat examination using a tongue depressor | | | Y | Bedside, skill lab | OSCE/Skills Assessment | | | |
| PE28.12 | Perform examination of the nose | | | Y | DOAP session | Skills Assessment | | ENT | |
| 28.12.1 | Position the child and perform nose examination | | | Y | Bedside, skill lab | OSCE/Skills Assessment | | | |
| PE 28.13 | Analyze the clinical symptoms and interpret physical findings and make a provisional/differential diagnosis in a child with ENT symptoms | | | Y | Bedside | Skills Assessment | | | |

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| 28.13.1 | Discuss the provisional/differential diagnosis in a child with ENT symptoms after analysis of history and physical examination. | | | Y | Bedside | Skills Assessment/OSCE/Clinical Case | | | |
| PE 28.14 | Develop a treatment plan and document appropriately in a child with upper respiratory symptoms | | | Y | Bedside | Skills Assessment | | | |

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| 28.14.1 | Plantreatmentinachildwithupperrespiratorysymptoms | | | Y | Bedside | OSCE/SkillsAssessment | | | |
| 28.14.2 | Prescribesupportiveandsymptomatictreatmentforupperrespiratorysymptoms | | | Y | Bedside | OSCE/SkillsAssessment | | | |
| PE 28.15 | StratifyriskinchildrenwithstridorusingIMNCIguidelines | | | Y | Bedside | Logbookdocumentation | | | |
| 28.15.1 | Classifythechildwith stridorasperIMNCIguidelines | | | Y | Bedside | Logbookdocumentation/clinicalcase | | | |
| PE 28.16 | Interpretbloodtestsrelevanttoupupperrespiratory problems | | | N | Bedside,SGD | Logbook | | | |
| 28.16.1 | Planandinterprettherelevantbloodtestinapatientwithupperrespiratory problems | | | N | Bedside,SGD | Logbook | | | |
| PE 28.17 | 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 lowerrespiratorytractinfection,understandthesignificance ofthymicshadow inpediatricchestX-rays | | | Y | Bedside,SGD | SkillsAssessment | | ENT,Radiology | |
| 28.17.1 | InterprettheX-rayofparanasalsinusesandmastoidforvariouscommon diseases | | | Y | Bedside,SGD | OSCE/SkillsAssessment | | | |
| 28.17.2 | InterpretthechestX-rayforidentifysuspectedFBaspirationandlowerrespiratorytractinfection | | | Y | Bedside,SGD | SkillsAssessment/OSCE | | | |
| 28.17.3 | IdentifythymicshadowinchestX-ray. | | | Y | Bedside,SGD | SkillsAssessment/OSCE | | | |

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| 28.17.4 | Plan the treatment after interpreting X-ray and/or its written report. | | | Y | Bedside,SGD | Skills Assessment/ OSCE | | | |
| PE 28.18 | Describe the etiology, pathogenesis, diagnosis, clinical features, management and prevention of lower respiratory infections including bronchiolitis, wheeze associated LRTI, pneumonia and empyema | | | Y | SGD, Lecture | Written, Viva voce | | | |
| 28.18.1 | Enumerate the common organisms causing LRTI | | | Y | Lecture,SGD, | Written /Viva voce | | | |
| 28.18.2 | Discuss the pathogenesis of LRTI including bronchiolitis, WALRI, pneumonia and empyema. | | | Y | Lecture,SGD, | Written/Viva voce | | | |
| 28.18.3 | Describe the clinical features of LRTI including bronchiolitis, WALRI, pneumonia and empyema | | | Y | Lecture,SGD, | Written/Viva voce | | | |
| 28.18.4 | Discuss the diagnosis of LRTI including bronchiolitis, WALRI, pneumonia and empyema after taking relevant clinical history and examination. | | | Y | Lecture,SGD, | Written/Viva voce | | | |
| 28.18.5 | Describe relevant investigations in a child with LRI | | | Y | Lecture,SGD, | Written, Viva voce | | | |
| 28.18.6 | Discuss the treatment of LRTI including bronchiolitis, WALRI, pneumonia and empyema | | | Y | Lecture,SGD, | Written, Viva voce | | | |
| 28.18.7 | Discuss the preventive strategies for LRTI | | | Y | Lecture,SGD, | Viva voce, SAQ/MCQ | | | |
| PE 28.19 | Describe the etiology, pathogenesis, diagnosis, clinical features, management and prevention of asthma in children | | | Y | Lecture,SGD | Written/Viva voce | | Resp Med | |
| 28.19.1 | Define Asthma in children as per ATM guidelines. | | | Y | Lecture,SGD, | Written, Viva voce | | | |
| 28.19.2 | Discuss the pathophysiology of asthma in children. | | | Y | Lecture,SGD, | Written | | | |

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| | | | | | | test, Vivav oce | | | |
| 28.19.3 | Describe the clinical features of asthma | | | Y | Lecture, SGD, | Written test, Vivav oce | | | |
| 28.19.4 | Discuss the diagnosis of asthma based on relevant clinical history, family history and physical examination. | | | Y | Lecture, SGD, | Vivavoce | | | |
| 28.19.5 | Enumerate the investigations in a child with Asthma | | | Y | Lecture, SGD, | Vivavoce | | | |
| 28.19.6 | List the drugs used for treating asthma in children | | | Y | Lecture, SGD, | Written test, Vivav oce | | | |
| 28.19.7 | Describe the treatment of an acute attack of asthma | | | Y | Lecture, SGD, | Written test, Vivavoce | | | |
| 28.19.8 | Describe the stepwise approach of preventive therapy for asthma as per ATM/GINA guidelines | | | Y | Lecture, SGD, | Written test, Vivav oce | | | |
| 28.19.9 | Describe various drug delivery devices for asthma | | | Y | Lecture, SGD | Written, Vivavoce | | | |
| 28.19.10 | Enumerate asthma triggers | | | Y | Lecture, SGD, | Written, Viva voce | | | |
| PE 28.20 | Counsel the child with asthma on the correct use of inhalers in a simulated environment | | | Y | Bedside, SGD, Lecture | Skills Assessment Written Viva voce | | Resp Med | |
| 28.20.1 | Counsel the child and the caretaker for correct use of MDI and spacer at initiation of therapy and on follow up | | | Y | Skill lab, clinics, lecture | OSCE | | | |
| Topic: Anemia and other Hemato-oncologic disorders in Children Number of competencies: (20) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE 29.1 | Discuss the etiopathogenesis, clinical features, classification and approach to a child with anemia | | | Y | Lecture, SGD | Written, viva-voce | | Path, Physio | |

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| 29.1.1 | Define anemia as per WHO GUIDELINES | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.1.2 | Enumerate the causes of anemia. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.1.3 | Describe the pathogenesis of anemia. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.1.4 | Enumerate clinical features of anemia | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.1.5 | Classify Anemia according to red cell morphology | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.1.6 | Describe the approach to a child with Anemia. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.1.7 | List the investigations in a child with anemia. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| PE 29.2 | Discuss the etiology, pathogenesis, clinical features and management of iron deficiency anemia. | | | Y | Lecture, SGD | Written/Viva-voce | | Path, Physio | |
| 29.2.1 | Enumerate the causes of iron deficiency anemia in children | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.2.2 | Describe the pathogenesis of iron deficiency anemia. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.2.3 | Describe clinical features of iron deficiency anemia in children. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.2.4 | List the investigations in a child with iron deficiency. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.2.5 | Describe the treatment of iron deficiency anemia in children. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| PE 29.3 | Discuss the etiology, pathogenesis, clinical features and management of Vitamin B-12, Folate deficiency anemia. | | | Y | Lecture, SGD | Written/Viva-voce | | Path, Physio | |
| 29.3.1 | Enumerate the causes of vitamin B-12 and folic acid deficiency. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.3.2 | Describe the pathogenesis of Vitamin B- | | | Y | Lecture, SGD | Written, | | | |

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| | 12deficiency. | | | | | viva-voce | | | |
| 29.3.3 | Describe the pathogenesis of folate deficiency. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.3.4 | Describe the clinical features of vitamin B-12 and Folate deficiency. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.3.5 | Enumerate the investigations for a child of Vitamin B-12 and Folate deficiency. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.3.6 | Describe the treatment for a child suffering from Vitamin B-12 and Folic acid deficiency. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| PE29.4 | Discuss the etio-pathogenesis, clinical features and management of Hemolytic anemia, Thalassemia Major, Sickle cell anemia, Hereditary spherocytosis, Auto-immune hemolytic anemia and hemolytic uremic syndrome. | | | Y | Lecture, SGD | Written, viva-voce | | Path, Physio | |
| 29.4.1 | Define Hemolytic Anemia. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.4.2 | Enumerate the causes of hemolytic anemia in children. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.4.3 | Describe the pathogenesis of different types of hemolytic anemia. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.4.4 | Describe the clinical features of hemolytic anemia, Thalassemia Major, Sickle cell anemia, Hereditary | | | Y | Lecture, SGD | Written, viva-voce | | | |
| | spherocytosis, Auto-immune hemolytic anemia and hemolytic uremic syndrome | | | | | | | | |
| 29.4.5 | List the investigations for diagnosis of hemolytic anemia. | | | Y | Lecture, SGD | Written, viva-voce | | | |

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| 29.4.6 | Differentiate various types of hemolytic anemia based on clinical features and investigations. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.4.7 | Describe treatment of hemolytic anemia: Thalassemia Major, Sickle cell anemia, Hereditary spherocytosis, Auto-immune hemolytic anemia and hemolytic uremic syndrome. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.4.8 | Describe the role of chelation therapy and recall the drugs, dosages and side-effects of the drugs. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| PE29.5 | Discuss the National Anemia Control Program. | | | Y | Lecture, SGD | Written, viva-voce | | ComMed | |
| 29.5.1 | Describe National Anemia Control Program. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| PE29.6 | Discuss the cause of thrombocytopenia in children: describe the clinical features and management of idiopathic Thrombocytopenic Purpura. | | | Y | Lecture, SGD | Written, viva-voce | | Path | |
| 29.6.1 | Define thrombocytopenia | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.6.2 | Enumerate the causes of thrombocytopenia in children. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.6.3 | Describe the pathogenesis of ITP. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.6.4 | Describe the clinical features of ITP. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.6.5 | Outline the investigations of ITP | | | Y | Lecture, SGD | Written, viva-voce | | | |
| 29.6.6 | Outline the management of ITP. | | | Y | Lecture, SGD | Written, viva-voce | | | |
| PE29.7 | Discuss the etiology, classification, pathogenesis and clinical features of Hemophilia in children. | | | Y | Lecture, SGD | Written, viva-voce | | Path | |
| 29.7.1 | Describe the etiology of hemophilia. | | | Y | Lecture, SGD | Written, viva-voce | | | |

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| 29.7.2 | Classifyhemophilia. | | | Y | Lecture,SGD | Written, viva-voce | | | |
| 29.7.3 | Describethepathogenesisofhemophilia. | | | Y | Lecture,SGD | Written,viva-voce | | | |
| 29.7.4 | Enumeratetheclinicalfeaturesofhemophilia. | | | Y | Lecture,SGD | Written, viva-voce | | | |
| PE29.8 | Discuss the etiology, clinical presentation andmanagementofAcuteLymphoblasticLeukemia in Children. | | | N | Lecture,SGD | Written, Viva-voce | | Path | |
| 29.8.1 | StatetheetiologiesofAcuteLymphoblasticLeukemia(ALL). | | | N | Lecture,SGD | Written,viva-voce | | | |
| 29.8.2 | Enumerateriskfactorsforchildhoodleukemia. | | | N | Lecture,SGD | Written, viva-voce | | | |
| 29.8.3 | DescribethetheclinicalpresentationofALL. | | | N | Lecture,SGD | Written, viva-voce | | | |
| 29.8.4 | Outlinetheinvestigationsfor diagnosisofALL. | | | N | Lecture,SGD | Written,viva-voce | | | |
| 29.8.5 | OutlinethetreatmentforALL. | | | N | Lecture,SGD | Written, viva-voce | | | |
| PE29.9 | Discusstheetiology,clinicalpresentationand managementofLymphomainchildren. | | | N | Lecture,SGD | Written,Viva - Voce | | Path | |
| 29.9.1 | Definelymphoma. | | | N | Lecture,SGD | Written,viva-voce | | | |
| 29.9.2 | StatetheetiologyofLymphomaanditstypes. | | | N | Lecture,SGD | Written, viva-voce | | | |
| 29.9.3 | Describethepathologyoflymphomas. | | | N | Lecture,SGD | Written, viva-voce | | | |
| 29.9.4 | RecalltheclinicalfeaturesofLymphomas. | | | N | Lecture,SGD | Written,viva-voce | | | |
| 29.9.5 | Outlinetheinvestigations(diagnosticworkup)forLymphomas. | | | N | Lecture,SGD | Written, viva-voce | | | |
| 29.9.6 | EnumeratethetreatmentmodalitiesforLymphoma | | | N | Lecture,SGD | Written,viva-voce | | | |

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| | S. | | | | | | | | |
| PE29.10 | Elicit,documentandpresentthehistoryrelated to Hematology. | | | Y | Bedside,Skillslab | SkillStation | | | |
| 29.10.1 | Elicitthehistoryrelatedtoahematologicaldisorder. | | | Y | Bedside,Skillslab | SkillStation | | | |
| 29.10.2 | Documentthehistory. | | | Y | Bedside,Skillslab | SkillStation | | | |
| 29.10.3 | Presentthehistory | | | Y | Bedside,Skillslab | SkillStation | | | |
| PE29.11 | Identifyexternalmarkersforhematologicaldisorders e.g.Jaundice,Pallor,Petechiae,Purpura,Ecchymosis,Lymphadenopathy,bonetenderness,loss of weight, Mucosalandlargejointbleed. | | | Y | Bedside,SkillsLab | Skillassessment | | | |
| 29.11.1 | Identifyjaundice,pallor,petechialspots,purpura, ecchymosis, lymphadenopathy, bone tenderness, Mucosalandlargejointbleedinapatientofhematologicaldisorder. | | | Y | Bedside,SkillsLab | Skillassessment | | | |
| PE29.12 | Performexaminationoftheabdomen,demonstrate Organomegaly. | | | Y | Bedside,SkillsLab. | Skill assessment | | | |
| 29.12.1 | Performperabdomenexamination. | | | Y | Bedside,SkillsLab | Skillassessment | | | |
| 29.12.2 | Demonstrateorganomegalyinachildafterabdominal examination. | | | Y | Bedside,SkillsLab | Skillassessment | | | |
| PE29.13 | Analyzesymptomsandinterpretphysicalsigns to makeaprovisional/differentialdiagnosis. | | | Y | Bedside,SkillsLab | Skill assessment | | | |
| 29.13.1 | Analyzesymptomsrelatedtohemato-oncologicalconditions. | | | Y | Bedside,SkillsLab | Skillassessment | | | |
| 29.13.2 | interpretphysicalsignstomakeaprovisionaldiagnosis | | | Y | Bedside,SkillsLab | Skillassessment | | | |
| 29.13.3 | Producedifferentialdiagnosiskeepinginmindthesymptoms andsignsrelatedtohaemato-oncologicalconditions. | | | Y | Bedside,SkillsLab | Skillassessment | | | |

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| PE29.14 | InterpretCBC, LFT | | | Y | Bedside,SkillsLa b | Skill assessment | | | |
| 29.14.1 | interpretCompleteBloodCountReport | | | Y | Bedside,SkillsLab | Skillassessment nt | | | |
| 29.14.2 | InterpretLiverFunctionTestsReport. | | | Y | Bedside,SkillsLab | Skillassessment nt | | | |
| PE29.15 | PerformandInterpretperipheralsmear. | | | Y | DOAPsession | Documentin Logbook | | | |
| 29.15.1 | Prepareaperipheralbloodfilm. | | | Y | DOAPsession | Documentin Logbook | | | |
| 29.15.2 | Interprettheperipheralbloodfilm. | | | Y | DOAPsession | Document inLogboo k | | | |
| 29.15.3 | Makediagnosisofperipheral bloodfilm. | | | Y | DOAPsession | Documentin Logbook | | | |
| PE29.16 | DiscusstheindicationsforHemoglobinelectrop horesis andinterpret thereport. | | | N | Lecture,SGD | Written/Viv a- voce | | Biochemist ry | |
| 29.16.1 | EnumeratetheindicationsforHemoglobinelectrop horesis | | | N | Lecture,SGD | Written/Vi va-voce | | | |
| 29.16.2 | interpretthereportofHemoglobinelectrophoresis | | | N | Lecture,SGD | Written/Viva - voce | | | |
| PE29.17 | Demonstrateperformanceofbonemarrowaspir ation inmannequin. | | | Y | Skillslab | Documentin Logbook | | | |
| 29.17.1 | identifythesitesofbonemarrowaspiration | | | Y | SkillsLab | Document inLogboo k | | | |
| 29.17.2 | Demonstratethecorrectstepsofbonemarrowaspira tion underasepticconditionsonamannequin. | | | Y | SkillsLab | Document inLogboo k | | | |
| PE29.18 | EnumeratethereferralcriteriaforHematologic al conditions. | | | Y | Bedside,Small groupactivity | Written/Viv a- voce | | | |

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| 29.18.1 | Enumerate the criteria for referring a patient with Hematological conditions | | | Y | Small group activity | Written/Viva-voce | | | |
| PE29.19 | Counsel and educate patients about prevention and treatment of anemia. | | | Y | Bedside, Skills Lab | Document in Logbook | | | |
| 29.19.1 | Counsel the parents empathetically about the diet and preventive measures for anemia. | | | Y | Bedside, Skills Lab | Document in Logbook | | | |
| 29.19.2 | Educate the patients/parents about the correct use of drugs. | | | Y | Bedside, Skills Lab | Document in Logbook | | | |
| PE29.20 | Enumerate the indications for splenectomy and precautions | | | N | Small group activity | Written/Viva-voce | | | |
| 29.20.1 | Enumerate the indications for splenectomy | | | N | Small group activity | Written/Viva-voce | | | |
| 29.20.2 | Explain about the immunization and antibiotic prophylaxis | | | N | Small group activity | Written/Viva-voce | | | |
| Topic: Systemic Pediatrics-Central Nervous System Number of competencies: (23) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE 30.1 | Discuss the etiopathogenesis, clinical features, complications, management and prevention of meningitis in children | | | Y | Lecture, SGD | Written/Viva voce | | Micro | |
| 30.1.1 | Enumerate all common causes of meningitis in children. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 30.1.2 | Describe the pathogenesis of meningitis in children. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 30.1.3 | Describe all the clinical features of meningitis in children. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 30.1.4 | Enumerate all the complications of meningitis in children. | | | Y | Lecture, SGD | Written/Viva voce | | | |

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| 30.1.6 | Enumerate all the investigations to diagnose meningitis in children. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.1.7 | Describe the CSF picture diagnostic of pyogenic meningitis. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.1.8 | Describe the standard treatment of meningitis based on age of patient and organism if identified. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.1.9 | Enumerate various preventive measures for meningitis. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| PE 30.2 | Distinguish bacterial, viral and tuberculous meningitis | | | Y | Lecture, SGD | Written/ Vivavoce | | Micro | |
| 30.2.1 | Differentiate the clinical features of bacterial, viral and tubercular meningitis in a child | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.2.2 | Differentiate the cerebrospinal fluid (CSF) picture of bacterial, viral and tubercular meningitis in a child | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| PE 30.3 | Discuss the etiopathogenesis, classification, clinical features, complication and management of Hydrocephalus in children | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.3.1 | Define hydrocephalus. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.3.2 | Enumerate all causes of hydrocephalus. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 30.3.3 | Describe normal CSF circulation and pathogenesis of hydrocephalus | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.3.4 | Classify types of hydrocephalus | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.3.5 | Describe all the clinical features of hydrocephalus. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.3.6 | Enumerate all the complications of hydrocephalus. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.3.7 | Describe the radiological picture (USG, CT scan or MRI) | | | Y | Lecture, SGD | Written/ Vivavoce | | | |

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| | diagnostic of hydrocephalus | | | | | | | | |
| 30.3.8 | Enumerate the investigations required to make an etiological diagnosis of hydrocephalus | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.3.9 | Describe the standard treatment for hydrocephalus including medical and surgical modalities. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| PE 30.4 | Discuss the etiopathogenesis, classification, clinical features, and management of Microcephaly in children | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.4.1 | Define microcephaly. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.4.2 | Enumerate all causes of microcephaly in children | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.4.3 | Describe pathogenesis of microcephaly in children | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 30.4.4 | Classify types of microcephaly in children | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.4.5 | Describe all the clinical features of microcephaly | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.4.6 | Describe treatment for microcephaly. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| PE 30.5 | Enumerate the Neural tube defects. Discuss the causes, clinical features, types, and management of Neural Tube defect | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.5.1 | Define Neural tube defects. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.5.2 | Enumerate all causes of Neural tube defects. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 30.5.3 | Describe pathogenesis of Neural tube defects. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 30.5.4 | Classify types of Neural tube defects. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |

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| 30.5.5 | Describe all the clinical features of the common types of Neural tube defects | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.5.6 | Describe radiological investigations (USG local and USG Head, CT scan and MRI) and the relevant findings to diagnose Neural tube defects and associated conditions | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.5.7 | Outline medical and surgical management including immediate treatment of neural tube defects. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.5.8 | Enumerate indications and contraindications of conservative and surgical modalities to treat neural tube defects. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.5.9 | Enumerate steps for prevention of neural tube defects. | | | Y | Lecture,SGD | Written/Viva voce | | | |
| PE 30.6 | Discuss the etiology, pathogenesis, clinical features, and management of Infantile hemiplegia | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.6.1 | Define infantile hemiplegia. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.6.2 | Enumerate all causes of infantile hemiplegia. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.6.3 | Describe pathogenesis of infantile hemiplegia. | | | Y | Lecture,SGD | Written/Viva voce | | | |
| 30.6.4 | Describe all the clinical features of infantile hemiplegia. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.6.5 | Enumerate investigations to diagnose infantile hemiplegia. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.6.6 | Describe all the treatment modalities for infantile hemiplegia including medical management, occupational therapy and physiotherapy. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| PE 30.7 | Discuss the etiology, pathogenesis, clinical features, complications and management of Fetal seizures in children | | | Y | Lecture,SGD | Written/ Vivavoce | | | |

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| 30.7.1 | DefineFebrileseizures. | | | Y | Lecture,SGD | Written/Viva voce | | | |
| 30.7.2 | EnumeratecausesofFebrileseizures. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.7.3 | DescribethepathogenesisofFebrileseizures. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.7.4 | ClassifytypesofFebrileseizures. | | | Y | Lecture,SGD | Written/Viva | | | |

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| 30.7.5 | Describe the clinical features of different types of Febrile seizures. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.7.6 | Enumerate complications of Febrile seizures. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.7.7 | Enumerate the investigations for diagnosis of Febrile seizures and the cause of the underlying fever. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.7.8 | Describe the standard treatment for Febrile seizures in children including intermittent prophylaxis and treatment of cause of fever. | | | KH | Lecture, SGD | Written/ Vivavoce | | | |
| PE 30.8 | Define epilepsy. Discuss the pathogenesis, clinical types, presentation and management of Epilepsy in children | | | K | Lecture, SGD | Written/ Vivavoce | | | |
| 30.8.1 | Define Epilepsy. | | | KH | Lecture, SGD | Written/ Vivavoce | | | |
| 30.8.2 | Describe the pathogenesis of Epilepsy. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 30.8.3 | Classify clinical types of Epilepsy. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.8.4 | Describe the various presentations of Epilepsy. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.8.5 | Enumerate and Describe the investigations required to diagnose Epilepsy. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.8.6 | Outline the medical and surgical management of Epilepsy | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.8.7 | Enumerate common Antiepileptic drugs and the type of Epilepsy in which they are indicated. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.8.8 | Enumerate the side effects of commonly used Antiepileptic drugs. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |

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| PE 30.9 | DefineStatusEpilepticus.Discusstheclinical presentationandmanagement | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.9.1 | DefineStatusepilepticus. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.9.2 | Describethetheclinicalpresentationofstatusepilepticus | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.9.4 | Enumerateinvestigationsrequiredfordiagnosisofstatus | | | Y | Lecture,SGD | Written/Viva | | | |

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| | epilepticus | | | | | voce | | | |
| 30.9.5 | Describe management of status epilepticus in a step wise manner based on the standard algorithm of management of status epilepticus of the PICU | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| PE 30.10 | Discuss the etiopathogenesis, clinical features and management of Mental retardation in children | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.10.1 | Define Mental Retardation (Intellectual disability) | | | Y | Lecture,SGD | Written/Viva voce | | | |
| 30.10.2 | Enumerate the causes of Mental Retardation (Intellectual disability) | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.10.3 | Describe the pathogenesis of Mental Retardation (Intellectual disability) | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.10.4 | Classify Mental Retardation (Intellectual disability). | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.10.5 | Enumerate and Describe clinical features of Mental Retardation (Intellectual disability) including dysmorphic features. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.10.6 | Describe the investigations for diagnosis of Mental Retardation (Intellectual disability). | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.10.7 | Describe the investigations (including genetic tests) required for identifying the etiology of Mental Retardation (Intellectual disability). | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.10.8 | Describe the multidisciplinary approach to management of Mental Retardation (Intellectual disability). | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.10.9 | Describe the treatment of preventable and treatable causes of Mental Retardation (Intellectual disability). | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| PE 30.11 | Discuss the etiopathogenesis, clinical features and management of children with cerebral palsy | | | Y | Lecture,SGD | Written/ Vivavoce | | | |

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| 30.11.1 | DefineCerebralPalsy | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.11.2 | EnumeratethecausesofCerebralPalsy | | | Y | Lecture,SGD | Written/Viva voce | | | |
| 30.11.3 | DescribethepathogenesisofCerebralPalsy | | | Y | Lecture,SGD | Written/Viva voce | | | |
| 30.11.4 | ClassifyCerebralPalsy. | | | Y | Lecture,SGD | Written/Viva | | | |

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| 30.11.5 | Enumerate and Describe clinical features of different types of Cerebral Palsy | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.11.6 | Describe the investigations required for identifying the etiology of Cerebral Palsy. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.11.7 | Describe the multidisciplinary approach to management of Cerebral Palsy. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.11.8 | Describe the treatment of preventable and treatable causes of Cerebral Palsy. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| PE30.12 | Enumerate the causes of floppiness in an infant and discuss the clinical features, differential diagnosis and management | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.12.1 | Define floppiness in an infant. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 30.12.2 | Enumerate the causes of floppiness in an infant. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.12.3 | Describe the pathogenesis of floppiness in an infant | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.12.4 | Describe the clinical features of floppiness in an infant | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 30.12.5 | Describe the differential diagnosis of floppiness in an infant | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.12.6 | Enumerate the investigations for floppiness in an infant | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.12.7 | Describe treatment approach to a floppy infant, including occupational therapy and physiotherapy. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| PE30.13 | Discuss the etiopathogenesis, clinical features, management and prevention of Polio myelitis in children | | | Y | Lecture, SGD | Written/ Vivavoce | | Micro | |

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| 30.13.1 | Defineacute flaccid paralysis (AFP). | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 30.13.2 | List causes of Acute Flaccid Paralysis. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 30.13.3 | Enumerate the viruses causing Poliomyelitis. | | | Y | Lecture, SGD | Written/ Viva voce | | Micro | |
| 30.13.4 | Describe the pathogenesis of Poliomyelitis | | | Y | Lecture, SGD | Written/Viva | | | |

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| 30.13.5 | Describe all the clinical features of Poliomyelitis. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.13.6 | Discuss the differential diagnosis of AFP. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.13.7 | Describe all the treatment modalities for Poliomyelitis/AFP including medical management, occupational therapy and physiotherapy. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.13.8 | Describe the various available Polio vaccines and their role in prevention of poliomyelitis. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| PE30.14 | Discuss the etiopathogenesis, clinical features and management of Duchenne muscular dystrophy | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.14.1 | Define Duchenne muscular dystrophy. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.14.2 | Describe the etiopathogenesis of Duchenne muscular dystrophy | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.14.3 | Describe the clinical features of Duchenne muscular dystrophy. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.14.4 | Enumerate investigations required including genetic testing to diagnose Duchenne muscular dystrophy. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.14.5 | Describe the treatment modalities for Duchenne muscular dystrophy including occupational therapy and physiotherapy. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| PE30.15 | Discuss the etiopathogenesis, clinical features and management of Ataxia in children | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.15.1 | Define Ataxia in children. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.15.2 | Enumerate all causes of Ataxia in children. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |
| 30.15.3 | Describe the pathogenesis of Ataxia in children. | | | Y | Lecture,SGD | Written/ Vivavoce | | | |

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| 30.15.4 | Describe all the clinical features of Ataxia in children. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 30.15.5 | Enumerate the investigations in evaluation of Ataxia in children. | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 30.15.7 | Describe the treatment available for the various causes of | | | Y | Lecture, SGD | Written/Viva voce | | | |

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| | Ataxia in children. | | | | | | | | |
| PE30.16 | Discuss the approach to and management of a child with headache | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.16.1 | Enumerate causes of headache in children | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.16.2 | Enumerate the types of headache | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.16.3 | Describe the clinical features of various types of headaches in children | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.16.4 | Enumerate all investigations to diagnose cause and type of headache. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.16.5 | Analyse the history and interpret the examination findings and investigations using an algorithm to come to a differential diagnosis/ diagnosis of headache | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.16.6 | Discuss approach to management of headache based on history, examination and investigations | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 30.16.7 | Describe treatment of a child with headache. | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| PE30.17 | Elicit, document and present an age appropriate history pertaining to the CNS | | | Y | Bedside, Skills lab | Skill Assessment | | | |
| 30.17.1 | Elicit age appropriate detailed history pertaining to CNS | | | Y | Bedside, Skills lab | Clinical case/ OSCE | | | |
| 30.17.2 | Write down age appropriate history including history pertaining to CNS under appropriate headings | | | Y | Bedside, Skills lab | Logbook | | | |
| 30.17.3 | Present the documented age appropriate history pertaining to CNS | | | Y | Bedside, Skills lab | Logbook | | | |
| PE30.18 | Demonstrate the correct method for physical examination of CNS including identification of external markers. Document and present clinical findings | | | Y | Bedside, Skills lab | Skill Assessment | | | |

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| 30.18.1 | Measure head circumference accurately. | | | Y | Bedside, Skills lab | OSCE | | | |
| 30.18.2 | Recognize neurocutaneous markers. | | | | Bedside/skill lab/pictures/video | OSCE | | | |
| 30.18.3 | Do a complete CNS examination in children of different | | | | Bedside/skill lab | Skill lab | | | |

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| | ages. | | | | | | | | |
| 30.18.4 | Recognize involuntary movements. | | | | Bedside/skilllab/ pictures/video | OSCE | | | |
| 30.18.5 | Examine for signs of meningeal irritation. | | | | Bedside/skilllab | Skilllab | | | |
| 30.18.6 | Document and present clinical findings. | | | | Bedside/skilllab | Clinical case | | | |
| PE30.19 | Analyse symptoms and interpret physical findings and propose a provisional/differential diagnosis | | | Y | Bedside, Skillslab | Skill Assessment | | | |
| 30.19.1 | Analyse symptoms and propose a provisional/differential diagnosis | | | Y | Bedside/skilllab | Clinical case | | | |
| 30.19.2 | Interpret physical findings and propose a provisional/differential diagnosis | | | Y | Bedside/skilllab | Clinical case | | | |
| 30.19.3 | Combine analysis of symptoms and interpretation of physical findings to propose a provisional/differential diagnosis | | | Y | Bedside/skilllab | Clinical case | | | |
| PE30.20 | Interpret and explain the findings in a CSF analysis | | | Y | SGD | Logbook | | Micro | |
| 30.20.1 | Interpret the findings (cells, proteins and sugar levels) in a CSF analysis. | | | Y | Skilllab | OSCE | | | |
| 30.20.2 | Explain the significance of findings (cells, proteins and sugar levels) in a CSF analysis | | | Y | SGD | SAQ/viva | | | |
| PE30.21 | Enumerate the indication and discuss the limitations of EEG, CT, MRI | | | N | Bedside | Logbook | | | |
| 30.21.1 | Enumerate the indications of EEG. | | | N | Bedside | Logbook | | | |
| 30.21.2 | Discuss the limitations of EEG. | | | N | Bedside | Logbook | | | |
| 30.21.3 | Enumerate the indications of CT scan | | | N | Bedside | Logbook | | | |
| 30.21.4 | Discuss the limitations of CT scan. | | | N | Bedside | Logbook | | | |
| 30.21.5 | Enumerate the indications of MRI. | | | N | Bedside | Logbook | | | |
| 30.21.6 | Discuss the limitations of MRI. | | | N | Bedside | Logbook | | | |
| PE30.22 | Interpret the reports of EEG, CT, MRI | | | Y | Bedside, Skillslab | Logbook | | Radio D | |
| 30.22.1 | Interpret EEG reports | | | Y | Bedside, Skillslab | Logbook | | | |

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| 30.22.2 | InterpretCTscan(BrainandSpine)reports | | | Y | Bedside,Skillslab | Logbook | | RadioD | |
| 30.22.3 | InterpretMRI(Brain&Spine) reports | | | Y | Bedside,Skillslab | Logbook | | RadioD | |

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| PE30.23 | Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure | | | Y | Bedside, Skills lab | Skill Assessment | | | |
| 30.23.1 | Perform lumbar puncture on a mannequin. | | | Y | Skill lab | SKILL assessment | | | |
| 30.23.2 | Enumerate all indications of lumbar puncture. | | | Y | SGD | OSCE/VIVA | | | |
| 30.23.3 | Enumerate contraindications of lumbar puncture | | | Y | SGD | OSCE/VIVA | | | |
| Topic: Allergic Rhinitis, Atopic Dermatitis, Bronchial Asthma, Urticaria Angioedema Number of competencies: (12) Number of procedures that require certification: (NIL) | | | | | | | | | |
| PE 31.1 | Describe the etiopathogenesis, management and prevention of Allergic Rhinitis in Children | | | Y | Lecture, SGD | Written/ Vivavoce | | ENT | |
| 31.1.1 | Define allergic rhinitis in children | | | Y | Lecture, SGD | Written/ Vivavoce | | ENT | |
| 31.1.2 | Enumerate risk factors and describe pathogenesis of allergic rhinitis in children | | | Y | Lecture, SGD | Written and vivavoce | | ENT | |
| 31.1.3 | Describe treatment and prevention for allergic rhinitis in children | | | Y | Lecture, SGD | Written and vivavoce | | ENT | |
| PE 31.2 | Recognize the clinical signs of Allergic Rhinitis | | | Y | Bedside, Skill Lab | Skill assessment | | ENT | |
| 31.2.1 | Identify clinical signs of allergic rhinitis in children | | | Y | Bedside, Skill Lab | Skill assessment | | ENT | |
| PE 31.3 | Describe the etiopathogenesis, clinical features and management of Atopic dermatitis in Children | | | Y | Lecture, SGD | Written/ Viva voce | | Derm | |
| 31.3.1 | Describe etiopathogenesis of atopic dermatitis in children. | | | Y | Lecture, SGD | Written/ Viva voce | | Derm | |
| 31.3.2 | Describe clinical features of atopic dermatitis in children. | | | Y | Lecture, SGD | Written and vivavoce | | | |

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| 31.3.3 | Describe treatment for prevention and control of atopic dermatitis in children | | | Y | Lecture, SGD | Written and vivavoce | | | |
| PE 31.4 | Identify clinical features of atopic dermatitis and manage | | | Y | Bedside, skill lab | Skill assessment | | Derm | |
| 31.4.1 | Identify clinical features of atopic dermatitis | | | Y | Bedside, skill lab | Skill assessment | | Derm | |

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| 31.4.2 | Make a plan for local and supportive therapy for children with atopic dermatitis | | | Y | Bedside, skill lab | Skill assessment | | | |
| 31.4.3 | Plan appropriate systemic therapy for children with atopic dermatitis | | | Y | Bedside, skill lab | Skill assessment | | | |
| PE 31.5 | Discuss the etiopathogenesis, clinical types, presentations, management and prevention of childhood Asthma | | | Y | Lecture/SGD | Written / vivavoce | | | |
| 31.5.1 | Describe etiopathogenesis of childhood asthma | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 31.5.2 | Describe types/patterns of childhood asthma as per ATM module. | | | Y | Lecture/SGD | Written and vivavoce | | | |
| 31.5.3 | Enumerate common triggers in childhood asthma | | | Y | Lecture/SGD | Written and vivavoce | | | |
| 31.5.4 | Describe clinical presentations of childhood asthma | | | Y | Lecture/SGD | Written and vivavoce | | | |
| 31.5.5 | Enumerate investigations in childhood asthma | | | Y | Lecture/SGD | Written and vivavoce | | | |
| 31.5.6 | Discuss treatment options for childhood asthma. | | | Y | Lecture/SGD | Written and vivavoce | | | |
| 31.5.7 | Discuss prevention for childhood asthma. | | | Y | Lecture/SGD | Written and vivavoce | | | |
| PE 31.6 | Recognizes symptoms and signs of asthma in a child | | | Y | Bedside, skill lab | Skill assessment | | | |
| 31.6.1 | Recognize symptoms and signs of asthma in a child | | | Y | Bedside, skill lab | Skill assessment | | | |
| PE 31.7 | Develop a treatment plan for a child with appropriate to the severity and clinical presentation | | | Y | Bedside, skill lab | Skill assessment | | | |

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| 31.7.1 | Develop a treatment plan appropriate for the severity and clinical presentation of a child with asthma | | | Y | Bedside, skill lab | Skill assessment | | | |
| 31.7.2 | Make a treatment plan for a child with acute severe asthma (status asthmaticus) | | | Y | Bedside, skill lab | Skill assessment | | | |
| 31.7.3 | Observe and document steps of use of metered dose inhaler with spacer in a child with asthma. | | | Y | Bedside, skill lab | Skill assessment | | | |
| PE 31.8 | Enumerate the criteria for referral in a child with asthma | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 31.8.1 | Enumerate the criteria for referral in a child with Asthma. | | | Y | Lecture, SGD | Written/Viva voce | | | |
| PE 31.9 | Interpret CBC and CX Ray in Asthma | | | Y | Bedside clinic, SGD | Skill assessment/OSCE | | | |
| 31.9.1 | Interpret CBC findings in relation to asthma from given case report. | | | Y | Bedside clinic, SGD | Skill assessment/OSCE | | | |
| 31.9.2 | Interpret findings on a given X-Ray of a child with asthma | | | Y | Bedside clinic, | Skill assessment | | | |
| PE 31.10 | Enumerate the indications for PFT. | | | N | Lecture, SGD | Written/Viva voce | | Pulmonary medicine | |
| 31.10.1 | Enumerate the indications of pulmonary function Test (PFT) in childhood asthma | | | N | Lecture, SGD | Written/Viva voce | | Pulmonary medicine | |
| PE 31.11 | Observe administration of Nebulization | | | Y | DOAP | Document in Logbook | | | |
| 31.11.1 | Observe and document steps of administration of Nebulization to a child with asthma | | | Y | DOAP | Document in Logbook | | | |
| PE 31.12 | Discuss the etiology, pathogenesis, clinical features, complications and management of Urticaria Angioedema. | | | Y | Lecture, SGD | Written/Viva voce | | | |

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| 31.12.1 | Describeetiopathogenesisofurticaria/angioedema in children | | | Y | Lecture/SGD | Written/Viva voce | | | |
| 31.12.2 | Describeclinicalfeaturesofurticaria/angioedema | | | Y | Lecture/SGD | Written andvivavoce | | | |
| 31.12.3 | Enumeratecommoncomplicationsofurticaria/angioedemainchildren | | | Y | Lecture/SGD | Written andvivavoce | | | |
| 31.12.4 | Enumerateinvestigationsincaseofurticaria/angioedemain children | | | Y | Lecture/SGD | Writtenandvivavoce | | | |
| 31.12.5 | Describetreatmentplanofurticaria/angioedemain children | | | Y | Lecture/SGD | Written andvivavoce | | | |

Topic:ChromosomalAbnormalities

Numberofcompetencies:(13) Numberofprocedureshatrequirecertification:(NIL)

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| PE32.1 | Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Down Syndrome | | | Y | Lecture, Small group discussion | Written | | Human Anat | |
| 32.1.1 | Describe the genetic basis of Down syndrome | | | Y | Lecture/SGD | MCQ/SAQ,/Vivavoce | | Anat,Biochemistry | OBG |
| 32.1.2 | Enumerate the risk factors for Down syndrome | | | Y | Lecture/SGD | MCQ/SAQ,/Vivavoce | | | |
| 32.1.3 | Enumerate the complications of Down syndrome | | | Y | Lecture/SGD | MCQ/SAQ,/Vivavoce | | | |
| 32.1.4 | Describe the prenatal diagnosis of Down syndrome | | | Y | Lecture/SGD | MCQ/SAQ,/Vivavoce | | | |
| 32.1.5 | Describe the management of Down syndrome | | | Y | Lecture/SGD | MCQ/SAQ,/Vivavoce | | | |
| 32.1.6 | Describe the genetic counseling for Down syndrome | | | Y | Lecture/SGD | MCQ/SAQ,/Vivavoce | | | |
| PE 32.2 | Identify the clinical features of Down Syndrome | | | Y | Bedside, Skills lab | Logbook | | Med | |

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|----------------|--|--|--|----------|---------------------------------|--------------------------|--|--------------------|------------|
| 32.2.1 | Identify common clinical features in a child with Down syndrome | | | Y | Bedside clinic | Bedside/OSCE | | | |
| PE 32.3 | Interpret normal Karyotype and recognize Trisomy 21 | | | Y | Bedside, Skills lab | Logbook | | | Med |
| 32.3.1 | Read a normal Karyotype and recognize true Trisomy 21 | | | Y | Skill lab | OSCE/Logbook | | | |
| 32.3.2 | Recognize different types of Karyotype abnormalities in Down Syndrome | | | N | Skill lab | OSCE | | Anat/Path | Med |
| PE 32.4 | Discuss the referral criteria and Multidisciplinary approach to management | | | Y | Lecture, SGD | Written/Viva voce | | | |
| 32.4.1 | Enumerate the referral criteria for Down syndrome. | | | Y | SGD | SAQ/Viva | | Anat Biochemistry | Med |
| 32.4.2 | Describe a multidisciplinary approach to management of a child with Down syndrome | | | Y | Lecture/SGD | MCQ/SAQ | | | |
| PE 32.5 | Counsel parents regarding 1. Present child 2. Risk in the next pregnancy | | | N | Bedside, Skills lab | Logbook | | | |
| 32.5.1 | Counsel the parent of a child with Down syndrome in a comprehensive manner including care, possible complications, future outcomes | | | Y | DOAP/bedside/skill lab/roleplay | Logbook/roleplay | | | |
| 32.5.2 | Counsel parents for risk in future pregnancies | | | Y | Simulation, Roleplay | OSCE/Logbook | | | |
| PE 32.6 | Discuss the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counseling in Turner Syndrome | | | N | Lecture, SGD | Written/Viva voce | | Med, OBG | |
| 32.6.1 | Describe the genetic basis of Turner syndrome | | | N | Lecture/SGD | MCQ/SAQ, Vivavoce | | Anat, Biochemistry | OBG |
| 32.6.2 | Enumerate the risk factors for Turner syndrome | | | N | Lecture/SGD | MCQ/SAQ, Vivavoce | | | |
| 32.6.3 | Describe the clinical features of Turner syndrome | | | N | Lecture/SGD | MCQ/SAQ, Vivavoce | | | |
| 32.6.4 | Enumerate the complications of Turner syndrome | | | N | Lecture/SGD | MCQ/SAQ, Vivavoce | | | |

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|-----------------|---|--|--|----------|-------------------------------------|--------------------------|--|----------------------|-----------------------|
| 32.6.5 | Describe the prenatal diagnosis of Turner syndrome | | | N | Lecture/SGD | MCQ/SAQ/ Viva voce | | | |
| 32.6.6 | Describe the management of Turner syndrome | | | N | Lecture/SGD | MCQ/SAQ/ Viva voce | | | |
| 32.6.7 | Describe the genetic counseling for Turner syndrome | | | N | Lecture/SGD | MCQ/SAQ/ Viva voce | | | |
| PE 32.7 | Identify the clinical features of Turner Syndrome | | | N | Bedside, Skills lab | Logbook | | Med | |
| 32.7.1 | Identify clinical features of Turner syndrome | | | N | Bedside, Photo | Bedside/ Logbook | | | |
| PE 32.8 | Interpret normal Karyotype and recognize Turner Karyotype | | | N | Bedside, Skills lab | Logbook | | | Med |
| 32.8.1 | Read a normal Karyotype and recognize Turner karyotype | | | N | Skill lab | Logbook | | | |
| PE 32.9 | Discuss the referral criteria and Multidisciplinary approach to management | | | N | Lecture, SGD | Written/Viva voce | | | |
| 32.9.1 | Enumerate the referral criteria for Turner syndrome. | | | N | SGD | SAQ/Viva | | Anat Biochemistry | Med |
| 32.9.2 | Describe a multidisciplinary approach to management of a child with Turner syndrome | | | N | Lecture/SGD | MCQ/SAQ | | | |
| PE 32.10 | Counsel parents regarding 1. Present child 2. Risk in the next pregnancy | | | N | Bedside, Skills lab | Logbook | | | Med, ObsG ynaec |
| 32.10.1 | Counsel the parents of a child with Turner syndrome in a comprehensive manner including care, possible complications, future outcomes | | | N | DOAP/bedside/ skill lab/roleplay | Logbook/roleplay | | | |
| 32.10.2 | Counsel parents for risk in future pregnancies | | | N | Simulation, Roleplay | Logbook | | | |
| PE 32.11 | Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Klinefelter Syndrome | | | Y | Lecture/SGD | Written/viva | | | Med |

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|--|---|--|--|---|--------------------|--------------------|--|--|-----|
| 32.1.1 | Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counseling in Klinefelter Syndrome | | | Y | Lecture/SGD | Written/viva | | | |
| PE 32.12 | Identify the clinical features of Klinefelter Syndrome | | | N | Bedside/ photo | LOGBOOK | | | Med |
| | Identify the clinical features of Klinefelter Syndrome | | | N | Bedside/ photo/ | LOGBOOK | | | |
| PE 32.13 | Interpret normal Karyotype and recognize the Klinefelter Karyotype | | | N | Bedside/ photo | LOGBOOK | | | Med |
| Topic: Endocrinology Number of competencies: (11) Number of procedures that require recertification: (02) | | | | | | | | | |
| PE33.1 | Describe the etiopathogenesis clinical features, management of Hypothyroidism in children | | | Y | Lecture, SGD | written/ viva voce | | | |
| 33.1.1 | Describe the pathogenesis of hypothyroidism in children | | | Y | Lecture/ SGD | Written/viva | | | |
| 33.1.2 | Enumerate the causes of congenital and acquired hypothyroidism in children. | | | Y | Lecture, SGD | Written/viva | | | |
| 33.1.4 | Describe the clinical features of congenital and acquired hypothyroidism | | | Y | Lecture, SGD | Written/viva | | | |
| 33.1.5 | Discuss the approach to a case of congenital/ acquired hypothyroidism in children | | | Y | Lecture, SGD | Written/viva | | | |
| 33.1.6 | Outline the treatment of hypothyroidism in children. | | | Y | Lecture, SGD | Written/viva | | | |
| PE33.2 | Recognize the clinical signs of Hypothyroidism and refer | | | Y | Bedside, Skill Lab | Skill Assessment | | | |
| 33.2.1 | Recognize hypothyroidism by taking appropriate history and focused physical examination | | | Y | Bedside | Skill assessment | | | |
| 33.2.2 | Identify the need to refer the child to higher center | | | Y | Bedside, skill lab | OSCE with SP | | | |
| PE33.3 | Interpret and explain neonatal thyroid screening report | | | Y | Bedside, SGD | Skill Assessment | | | |
| 33.3.1 | Interpret the given neonatal thyroid screening report | | | Y | SGD, Bedside | OSCE/ viva voce | | | |
| 33.3.2 | Explain the given thyroid screening report | | | Y | Bedside, SGD | OSCE | | | |

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|---------------|--|--|--|---|---|---------------------------|----------|----------------------|--|
| PE33.4 | Discuss the etiopathogenesis, clinical types, presentations, complication and management of Diabetes mellitus in children | | | Y | Lecture, SGD | Written/ Vivavoce | | | |
| 33.4.1 | Explain the etiopathogenesis of Diabetes mellitus in children. | | | Y | Lecture/SGD | Written/viva | | Biochemistry, Physio | |
| 33.4.2 | Discuss clinical types of DM in children. | | | Y | Lecture/SGD | Written/viva | | | |
| 33.4.4 | Describe the clinical features of DM in children. | | | Y | Lecture/SGD | Written/viva | | | |
| 33.4.5 | Enumerate the complications of DM. | | | Y | Lecture/SGD | Written/viva | | | |
| 33.4.6 | Describe the comprehensive management for children with DM. | | | Y | Lecture/SGD | Written/viva | | | |
| PE33.5 | Interpret Blood sugar reports and explain the diagnostic criteria for Type 1 Diabetes | | | Y | Bedside clinic, small group activity | Skill Assessment | | | |
| 33.5.1 | Identify Type 1 Diabetes from a given blood report as per latest diagnostic criteria of DM (American Diabetes Association, 2016) | | | Y | Bedside, SGD | OSCE | | | |
| PE33.6 | Perform and interpret Urine Dipstick for Sugar | | | Y | DOAP session | Skill Assessment | 3 | Biochemistry | |
| 33.6.1 | Perform urine dipstick test for sugar and interpret it correctly | | | Y | DOAP session | OSPE | | | |
| PE33.7 | Perform genital examination and recognize Ambiguous Genitalia and refer appropriately | | | Y | Bedside, skill lab | Skill Assessment | | | |
| 33.7.1 | Identify the deviation from normal while performing genital examination maintaining full dignity of the patient | | | Y | Bedside, skill lab | OSCE | | | |
| 33.7.2 | Counsel the parents for referral to specialist after recognizing ambiguous genitalia | | | Y | Bedside, skill lab | OSCE station with SP | | | |
| PE33.8 | Define precocious and delayed Puberty | | | Y | Lecture, SGD | Written/ Viva voce | | | |
| 33.8.1 | Discuss normal Physiology of puberty and define | | | Y | Lecture, SGD | Written/viva | | | |

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|----------------|---|--|--|----------|---------------------------|-------------------------|--|--|--|
| | recocious and delayed puberty | | | | | | | | |
| PE33.9 | Perform Sexual Maturity Rating (SMR) and interpret | | | Y | Bedside, skill lab | Skill Assessment | | | |
| 33.9.1 | Perform SMR staging maintaining full dignity of the adolescent patient and interpret it correctly | | | Y | Bedside, skill lab | OSCE | | | |
| PE33.10 | Recognize precocious and delayed Puberty and refer | | | Y | Bedside, skill lab | Logbook | | | |

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|---|---|--|--|----------|---------------------------|--------------------------|---|--------------|------------------|
| 33.10.1 | Recognize features of precocious and delayed puberty in a child | | | Y | Bedside/skill lab | Logbook | | | |
| 33.10.2 | Counsel the parents for need to refer the child to higher center after diagnosing precocious or delayed Puberty | | | Y | Bedside, skill lab | OSCE with SP | | | |
| PE 33.11 | Identify deviations in growth and plan appropriate referral | | | Y | Bedside, skill lab | Logbook | 2 | | |
| 33.11.1 | Identify the abnormal growth pattern in a child | | | Y | Bedside, skill lab | OSCE | 2 | | |
| 33.11.2 | Plan the referral of a child with abnormal growth to a specialist and counsel the parents accordingly | | | Y | Bedside, skill lab | OSCE with SP | 2 | | |
| Topic: Vaccine preventable Diseases- Tuberculosis Number of competencies: (20) Number of procedures that require certification: (03) | | | | | | | | | |
| PE 34.1 | Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents | | | Y | Lecture/SGD | Written/viva voce | | Micro | Res p Med |
| 34.1.1 | Discuss the epidemiology of Tuberculosis in Children and Adolescents | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.1.2 | Describe the clinical features of Tuberculosis in Children and Adolescents | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.1.3 | Enumerate the clinical types of Tuberculosis in Children and Adolescents | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.1.4 | List the complications of Tuberculosis in Children and Adolescents | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 34.2 | Discuss the various diagnostic tools for childhood tuberculosis | | | Y | Lecture/SGD | Written/viva voce | | Micro | Resp Med |
| 34.2.1 | Describe the various diagnostic tools for childhood tuberculosis | | | Y | Lecture/SGD | Written/viva voce | | | |

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|----------------|--|--|--|----------|---------------------|------------------------------|--|---|--------------------------|
| PE 34.3 | Discuss the various regimens for management of Tuberculosis as per National Guidelines | | | Y | Lecture/SGD | Written/vi vavoce | | Micro, Com Med, Pharm | Res pM ed |
| 34.3.1 | Describe the various regimens for management of Tuberculosis as per National Guidelines | | | Y | Lecture/SGD | Written/v ivavoce | | | |
| PE 34.4 | Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Program | | | Y | Lecture/ SGD | Written/vi vavoce | | Micro, Com Med, Pha rm | Res pM ed |

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|----------------|---|--|--|----------|---------------------------|-------------------------|----------|------------------|-----------------|
| 34.4.1 | Describe the preventive strategies adopted under the National Tuberculosis Program | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.4.2 | List the objectives of the National Tuberculosis Program | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.4.3 | Discuss the outcome of the National Tuberculosis Program | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 34.5 | Able to elicit, document and present history of contact with tuberculosis in every patient encounter | | | Y | Bedside, Skillslab | Skill Assessment | | | Resp Med |
| 34.5.1 | Elicit history of contact with tuberculosis in every patient encounter | | | Y | Bedside, Skillslab | Skill Assessment | | | |
| 34.5.2 | Document history of contact with tuberculosis in every patient encounter | | | Y | Bedside, Skillslab | Skill Assessment | | | |
| 34.5.3 | Present history of contact with tuberculosis in every patient encounter | | | Y | Bedside, Skillslab | Skill Assessment | | | |
| PE 34.6 | Identify a BCG scar | | | Y | Bedside, Skillslab | Skill Assessment | 3 | Micro | Resp Med |
| 34.6.1 | Identify a BCG scar in a child | | | Y | Bedside, Skillslab | Skill Assessment | 3 | | |
| PE 34.7 | Interpret a Mantoux Test | | | Y | Bedside | Skill Assessment | 3 | Micro | Resp Med |
| 34.7.1 | Read a Mantoux Test | | | Y | Bedside | Skill Assessment | 3 | | |
| 34.7.2 | Interpret a Mantoux Test | | | Y | Bedside | Skill Assessment | 3 | | |
| PE 34.8 | Interpret a chest radiograph | | | Y | Bedside | Skill Assessment | | Radiology | Resp Med |
| 34.8.1 | Identify abnormalities caused by tuberculosis in a chest radiograph | | | Y | Bedside | Skill Assessment | | | |
| PE 34.9 | Interpret blood tests in the context of laboratory evidence for tuberculosis | | | N | Bedside, SGD | Logbook | | Micro | Resp Med |
| 34.9.1 | Interpret blood tests in the context of laboratory evidence for tuberculosis | | | N | Bedside, SGD | Logbook | | | |

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|-----------------|---|--|--|----------|---------------------|--------------------------|--|--------------|-----------------|
| PE 34.10 | Discuss the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum, CSF, FNA C | | | Y | Bedside, SGD | Written/viva voce | | Micro | Resp Med |
| 34.10.1 | Describe the various samples for demonstrating the mycobacteria e.g. Gastric Aspirate, Sputum, CSF, FNAC | | | Y | Bedside, SGD | Written/viva voce | | | |

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|-----------------|--|--|--|----------|---------------------|--------------------------|----------|--------------|-----------------|
| PE 34.11 | Perform AFB staining | | | Y | DOAP session | Logbook/Journal | 3 | Micro | Resp Med |
| 34.11.1 | Perform AFB staining | | | Y | DOAP session | Logbook/Journal | 3 | | |
| PE 34.12 | Enumerate the indications and discuss the limitations of methods of culturing M. Tuberculosis | | | Y | SGD | Written/viva voce | | Micro | Resp Med |
| 34.12.1 | Enumerate the indications of culturing M. tuberculosis | | | Y | SGD | Written/viva voce | | | |
| 34.12.2 | Enumerate the methods of culturing M. tuberculosis | | | Y | SGD | Written/viva voce | | | |
| 34.12.3 | Describe the limitations of different methods of culturing M. tuberculosis | | | Y | SGD | Written/viva voce | | | |
| PE 34.13 | Enumerate the newer diagnostic tools for Tuberculosis including BACTEC, CBNAAT and their indications | | | N | Lecture/ SGD | Written/viva voce | | | |
| 34.13.1 | Enumerate the newer diagnostic tools for Tuberculosis including BACTEC and CBNAAT | | | N | Lecture/SGD | Written/viva voce | | | |
| 34.13.2 | Recall the indications for using the newer diagnostic tools for Tuberculosis including BACTEC and CBNAAT | | | N | Lecture/SGD | Written/viva voce | | | |
| PE 34.14 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of fever in children | | | Y | Lecture/ SGD | Written/viva voce | | Micro | |
| 34.14.1 | Enumerate the common causes of fever in children. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.14.2 | Describe the pathophysiology of fever in children. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.14.3 | List the clinical features associated with fever in children which aid in diagnosis. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.14.4 | Recall the complications of fever in children. | | | Y | Lecture/SGD | Written/viva voce | | | |

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| 34.14.5 | Elaboratethemanagementoffeverinchildren. | | | Y | Lecture/SGD | Written/v ivavoce | | | |
| PE 34.15 | Enumerate the common causes of fever and discusstheetiopathogenesis,clinicalfeatures, complications andmanagementofchildwithexanthematousill nesslikeMeasles,Mumps,Rubella&Chickenpox | | | Y | Lecture/ SGD | Written/vi vavoce | | Micro | |

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|-----------------|--|--|--|----------|--------------------|--------------------------|--|--------------|----------|
| 34.15.1 | Enumerate the common causes of exanthematous illness (fever with rash) in children | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.15.2 | Discuss the pathogenesis of Measles, Mumps, Rubella & Chickenpox | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.15.3 | Describe the clinical features of Measles, Mumps, Rubella & Chickenpox in children and adolescents | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.15.4 | Enumerate the complications of Measles, Mumps, Rubella & Chickenpox in children and adolescents | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.15.5 | Outline the management of Measles, Mumps, Rubella & Chickenpox in children and adolescents | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 34.16 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Diphtheria, Pertussis, Tetanus | | | Y | Lecture/SGD | Written/viva voce | | Micro | |
| 34.16.1 | Discuss the pathogenesis of Diphtheria, Pertussis and Tetanus | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.16.2 | Describe the clinical features of Diphtheria, Pertussis and Tetanus in children and adolescents. | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.16.3 | Enumerate the complications of Diphtheria, Pertussis and Tetanus in children and adolescents | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.16.4 | Outline the management of Diphtheria, Pertussis and Tetanus in children and adolescents | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 34.17 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Typhoid | | | Y | Lecture/SGD | Written/viva voce | | Micro | - |
| 34.17.1 | Discuss the pathophysiology of Typhoid fever | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.17.2 | Describe the clinical features of Typhoid fever in children | | | Y | Lecture/SGD | Written/viva voce | | | |

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| 34.17.3 | EnumeratethecomplicationsofTyphoidfeverinchil dren | | | Y | Lecture/SGD | Written/v ivavoce | | | |
| 34.17.4 | outlinethemanagementofTyphoidfeverinchildren | | | Y | Lecture/SGD | Written/v ivavoce | | | |

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| PE 34.18 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Dengue, Chikungunya and other vectorborne diseases | | | Y | Lecture/ SGD | Written/vi vavoce | | Micro | - |
| 34.18.1 | Enumerate common causes of fever resulting from vectorborne diseases in children (Eg Dengue, Chikungunya and others) | | | Y | Lecture/SGD | Written/v ivavoce | | | |
| 34.18.2 | discuss the pathophysiology of vectorborne diseases in children (Eg Dengue, Chikungunya, and others) | | | Y | Lecture/SGD | Written/v ivavoce | | | |
| 34.18.3 | list the clinical features of vectorborne diseases in children (Eg Dengue, Chikungunya, and others) | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.18.4 | recall the complications of vectorborne diseases in children (Eg Dengue, Chikungunya, and others) | | | Y | Lecture/SGD | Written/v ivavoce | | | |
| 34.18.5 | elaborate the management of vectorborne diseases in children (Eg Dengue, Chikungunya, and others) | | | Y | Lecture/SGD | Written/v ivavoce | | | |
| PE 34.19 | 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 | | | Y | Lecture/SGD | Written/vi vavoce | | Micro | - |
| 34.19.1 | Enumerate the common causes of fever resulting from parasitic infections like malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis and giardiasis | | | Y | Lecture/SGD | Written/v ivavoce | | | |
| 34.19.2 | Discuss the pathophysiology of Common Parasitic Infections like malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis and giardiasis | | | Y | Lecture/SGD | Written/v ivavoce | | | |

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|---|--|--|--|----------|-------------------------------|--------------------------|--|--------------|----------|
| 34.19.3 | List the clinical features of Common Parasitic Infections like malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis and giardiasis | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.19.4 | Recall the complications of Common Parasitic Infections like malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis and giardiasis | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.19.5 | Elaborate the management of Common Parasitic Infections like malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis and giardiasis | | | Y | Lecture/SGD | Written/viva voce | | | |
| PE 34.20 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Rickettsial diseases | | | Y | Lecture/SGD | Written/viva voce | | Micro | - |
| 34.20.1 | Enumerate the common causes of fever resulting from Rickettsial diseases | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.20.2 | Discuss the pathophysiology of Rickettsial diseases | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.20.3 | List the clinical features of Rickettsial diseases in children | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.20.4 | Recall the complications of Rickettsial diseases in children | | | Y | Lecture/SGD | Written/viva voce | | | |
| 34.20.5 | Elaborate the management of Rickettsial diseases in children | | | Y | Lecture/SGD | Written/viva voce | | | |
| Topic: The role of the physician in the community Number of competencies: (1) Number of procedures that require recertification: (NIL) | | | | | | | | | |
| PE 35.1 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as they pertain to healthcare in children (including parental rights and right to refuse treatment) | | | Y | Small group discussion | Written/Viva voce | | | |

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|--------|---|--|--|---|-------------------------------------|---|---|----------|--|
| 35.1.1 | List common medico-legal issues related to healthcare in children | | | Y | Interactive lecture | Written/viva | - | Forensic | |
| 35.1.2 | List common socio-cultural issues related to healthcare in children | | | Y | Interactive lecture/community visit | Written/viva | - | ComMed | |
| 35.1.3 | Identify the important socio-cultural and ethical issues related to healthcare in children in a clinical case during bedside teaching | | | Y | Bedside teaching | Long case OSCE Reflective writing | | | |
| 35.1.4 | Discuss the common medico-legal, socio-cultural and ethical issues related to healthcare in children | | | Y | Case-based learning/SGD | OSCE Reflective writing | | | |

Summary of course content, teaching and learning methods and student assessment for the undergraduate (MBBS) Curriculum in Paediatrics

Course content

The course content has been given in detail in the above Table, which includes competencies, specific learning objectives for each competencies and the suggested Teaching-Learning methods and assessment methods. The competencies have been developed by an expert group nominated by NMC, while the SLOs, T-L methods and assessments methods have been written by the expert committee constituted by Sri Siddhartha Academy of Higher Education, with inputs taken from IAP Taskforce.

Teaching-Learning methods and Time allotted

| | Clinics | Lectures | Small group discussion | Self-directed learning |
|-------------------------------|--|----------|------------------------|------------------------|
| Professional year II | 2 weeks (3 hours per day, 6 days a week) | - | - | - |
| Professional year III Part I | 4 weeks (3 hours per day, 6 days a week) | 20 | 30 | 5 |
| Professional year III Part II | 4 weeks (3 hours per day, 6 days a week) | 20 | 35 | 10 |

Teaching-learning methods shall be learner centric and shall predominantly include small group learning, interactive teaching methods and case-based learning. Didactic lectures not to exceed one-third of the total teaching time. The teaching learning activity focus should be on application of knowledge rather than acquisition of knowledge.

The curricular contents shall be vertically and horizontally aligned and integrated to the maximum extent possible to enhance learner's interest and eliminate redundancy and overlap. Integration allows the student to understand the structural basis of paediatric problems, their management and correlation with function, rehabilitation and quality of life.

Acquisition and certification of skills shall be through experiences in patient care, diagnostic and skill laboratories. Use of skill lab to train undergraduates is desirable. Newer T-L method like Learner-doctor method (Clinical clerkship) should be mandatorily implemented, from 1st clinical postings itself.

The goal of this type of T-L activity is to provide learners with experience in longitudinal patient care, being part of the health care team, and participate in hands-on care of patients in outpatient and inpatient setting. During the 1st clinical postings, the students are oriented to the working of the department. During the subsequent clinical postings the students are allotted patients, whom they follow-up through their stay in

the hospital, participating in that patient's care including case work-up, following-up on investigations, presenting patient findings on rounds, observing procedures, if any, till patient is discharged.

The development of ethical values and overall professional growth as integral part of curriculum shall be emphasized through a structured longitudinal and dedicated programme on professional development including attitude, ethics, and communication which is called the AETCOM module. The purpose is to help the students apply principles of bioethics, system based care, apply empathy and other human values in patient care, communicate effectively with patients and relatives and to become a professional who exhibits all these values. This will be a longitudinal programme spread across the continuum of the MBBS programme including internship.

Assessment

Eligibility to appear for University examinations is dependent on fulfilling criteria in two main areas – attendance and internal assessment marks

Attendance

Attendance requirements are 75% in theory and 80% in clinical postings for eligibility to appear for the examinations in Paediatrics.

75% attendance in AETCOM Module is required for eligibility to appear for final examination in Professional year III part II.

Internal Assessment

Progress of the medical learner shall be documented through structured periodic assessment that includes formative and summative assessments. Logs of skill-based training shall be also maintained.

There shall be no less than three internal assessment examinations in Paediatrics. An end of posting clinical assessment shall be conducted for each of the Paediatric clinical postings.

Day to day records and logbook (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

Learners must secure at least 50% marks of the total marks (combined in theory and clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in Paediatrics in order to be eligible for appearing at the final University examination.

Internal assessment marks will reflect as separate head of passing at the summative examination.

The results of internal assessment should be displayed on the notice board within 1-2 weeks of the test.

Remedial measures should be offered to students who are either not able to score qualifying marks or have missed on some assessments due to any reason.

Learners must have completed the required certifiable competencies for that phase of training and Paediatric logbook entry completed to be eligible for appearing at the final university examination.

AETCOM assessment will include: (a) Written tests comprising of short notes and creative writing experiences, (b) OSCE based clinical scenarios / viva voce.

University examinations

University exam shall be held at the end of Professional year III part II of training (Final year MBBS) in the subjects of Paediatrics, General Medicine, Obstetrics and gynaecology and General Surgery.

University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimal level of skills, ethical and professional values with clear concepts of the fundamentals which are necessary for him/her to function effectively and appropriately as a physician of first contact.

Assessment shall be carried out on an objective basis to the extent possible.

Marks allotted:

| Paediatrics | Theory | Clinical examination |
|-------------|---------------------------------------|-------------------------------|
| Total marks | 100 marks | 100 marks |
| | Long essay 2X10= 20 | Two cases x40marks=80marks |
| | Short essay 6x5=30 marks | Viva voce 4 x 5=20marks |
| | Short answer question 10x3=30marks | |
| | MCQs 20x1=20marks | |

The theory paper should include different types such as structured essays, short essays, Short Answers Questions (SAQ) and MCQs (Multiple Choice Questions). Marks for each part should be indicated separately.

All the question papers to follow the suggested **blueprint(APPENDIX 1)**. It is desirable **that** the marks allotted to a particular topic are adhered to.

A minimum of **80%** of the marks should be from the **must know (core)** component of the curriculum. A maximum of **20%** can be from the **desirable to know** component.

All **main essay questions** to be from the **must know component** of the curriculum.

Main essay questions to be of the **modified variety** containing a clinical case scenario. At least 30% of questions should be clinical case scenario based. Questions to be constructed to test higher cognitive levels.

Clinical examinations will be conducted in the hospital wards. Clinical cases kept in the examination must be common conditions that the learner may encounter as a physician of first contact in the community. Selection of rare syndromes and disorders asexamination cases is to be discouraged. Emphasis should be on candidate's capability to elicit history, demonstrate physical signs, write a case record, analyze the case and develop a management plan.

Viva/oral examination should assess approach to patient management, emergencies, attitudinal, ethical and professional values. Candidate's skill in interpretation of common investigative data, X-rays, identification of specimens, ECG, etc. is to be also assessed.

At least one question in each paper of the clinical specialties in the University examination should test knowledge competencies acquired during the professional development programme. Skill competencies acquired during the Professional Development Programme must be tested during the clinical, practical and viva voce.

There shall be one main examination in an academic year and a supplementary to be held not later than 90 days after the declaration of the results of the main examination.

Pass criteria

Internal Assessment: 50% combined in theory and practical (not less than 40% in each) for eligibility for appearing for University Examinations

University Examination: Mandatory 50% marks separately in theory and clinicals (clinicals = clinical + viva)

The grace marks up to a maximum of five marks may be awarded at the discretion of the University to a learner for clearing the examination as a whole but not for clearing a subject resulting in exemption.

Appointment of Examiners

Person appointed as an examiner in the particular subject must have at least four years of total teaching experience as assistant professor after obtaining postgraduate degree in the subject in a college affiliated to a recognized/approved/permitted medical college.

For the Practical/ Clinical examinations, there shall be at least four examiners for 100 learners, out of whom not less than 50% must be external examiners. Of the four examiners, the senior-most internal examiner will act as the Chairman and coordinator of the whole examination programme so that uniformity in the matter of assessment of candidates is maintained.

Where candidates appearing are more than 100, two additional examiners (one external & one internal) for every additional 50 or part there of candidates appearing, be appointed.

All eligible examiners with requisite qualifications and experience can be appointed as internal examiners by rotation.

External examiners may not be from the same University.

There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions.

All theory paper assessment should be done as central assessment program (CAP) of concerned university.

APPENDIX 1: Blueprint for Paediatric theory Examinations

| Topics | Marks allotted |
|--|----------------|
| <ul style="list-style-type: none">• Growth, development & Adolescent health• Nutrition and micronutrients | 15 |
| Neonatology | 10 |
| Fluid & Electrolytes | 3 |
| <ul style="list-style-type: none">• Immunity & Immunization• Infections & Infestation | 15 |
| Gastrointestinal system | 5 |
| Hematology including malignancies | 10 |
| <ul style="list-style-type: none">• Respiratory system• Cardiovascular system | 15 |
| Endocrine, metabolic & genetic disorders | 3 |
| Central Nervous system, neuromuscular disorders | 10 |
| Disorders of kidney & urinary tract | 5 |
| Pediatric emergencies | 3 |
| Miscellaneous – Eye, ENT, skin, Rheumatology, Psychiatry & social paediatrics | 6 |
| Total | 100 |

UNDER GRADUATE PAEDIATRIC LOG BOOK

As per Competency-Based Medical
Education Curriculum

Sample template

College
Logo

Student's
Stamp size
photo

(Name of the medical college)

DEPARTMENT OF PAEDIATRICS

UNDERGRADUATE PAEDIATRIC

LOG BOOK

Name of the student:

Contact Number:

Email id:

Date of admission to MBBS course:

Date of beginning of the current phase:

Reg. No. (College ID):

Reg. No. (University ID):

Sample template

DEPARTMENT OF PAEDIATRICS

(Name of the medical college)

LOG BOOK CERTIFICATE

Certified that this is a bonafide record of the work done by

_____ in the department during his/her clinical postings.

He/she will be appearing for the Final M.B.B.S.(Phase 3, part 2) examination of Sri

Siddhartha Academy of Higher Education, Tumkur, in February/August 20

Signature of faculty

Signature of Head of the department

Name :

Reg No. :

Batch :

Posting in the Dept :

From

To

I

II

III

ATTENDANCE

| | | Classes held | Classes attended | Percentage | Faculty sign |
|--------------------------------|-------|--------------|------------------|------------|--------------|
| Clinical Posting | I | | | | |
| | II | | | | |
| | III | | | | |
| Theory Attendance | PY3P1 | | | | |
| | PY3P2 | | | | |
| Small group discussions | PY3P1 | | | | |
| | PY3P2 | | | | |

| INTERNAL ASSESSMENT MARKS | | |
|--|-----------------------------|-------------------------|
| | Theory | Clinicals |
| | 1st test: | 1st : |
| | 2nd test: | 2nd: |
| | | 3rd: |
| Final Internal Assessment Marks | | |

INDEX

| S. NO: | CONTENT | PAGE NUMBER |
|---------------------------------------|--------------------------------------|-------------|
| 1. | Abbreviations | 2 |
| 2. | Summary of Certifiable Competencies | 3-4 |
| 3. | Documentation of Case Presentations | 5 |
| PROFESSIONAL YEAR II | | |
| 1. | Learning objectives | 7 |
| 2. | Certifiable competencies | 8-19 |
| 3. | Reflections | 20 |
| PROFESSIONAL YEAR III PHASE I | | |
| 1. | Learning objectives | 22 |
| 2. | Certifiable competencies | 23-29 |
| 3. | Competencies requiring documentation | 29-33 |
| 4. | AETCOM competencies | 34-35 |
| 5. | Self directed learning | 36-37 |
| 6. | Integrated learning | 38 |
| 7. | Reflections | 39 |
| | ELECTIVES IN PAEDIATRICS | 40 |
| PROFESSIONAL YEAR III PHASE II | | |
| 1. | Learning objectives | 42 |
| 2. | Certifiable competencies | 43-53 |
| 3. | Competencies requiring documentation | 54-58 |
| 4. | AETCOM competencies | 59 |
| 5. | Self directed learning | 60-61 |
| 6. | Integrated learning | 62 |
| 7. | Reflections | 63 |
| | CLINIC/ FIELD VISITS | 64-65 |

ABBREVIATIONS

F / R / RE – First or Only / Repeat / Remedial

- First or only – Student completed the task in the first attempt
- Repeat – Student completed the task in multiple attempts
- Remedial – Student completed the task after remedial measures

B / M / E – Below expectation / Meets expectation / Exceeds expectation

- Below expectation – Student did not complete the task
- Meets Expectation – Student completed the task with minimal prompts
- Exceeds expectation – Student completed the task without any prompts

C / R / RE – Completed / Repeat / Remedial

- Completed – Student has successfully completed the task
- Repeat – Student had to repeat the task in the same briefing
- Remedial – Student needs to undergo briefing again and repeat the task

AETCOM – Attitude, Ethics and Communication Module

SUMMARY OF CERTIFIABLE COMPETENCIES

| Competency no. | Competency details | No required to certify | Date completed | Reference page no |
|-----------------------|---|-------------------------------|-----------------------|--------------------------|
| PE1.4 | Perform anthropometric measurements, document in growth charts and interpret | 3 | | 8 |
| PE1.7 | Perform developmental assessment and interpret | 3 | | 14 |
| PE 7.5 | Observe the correct technique of breast feeding and distinguish right from wrong techniques | 3 | | 23 |
| PE11.5 | Calculate BMI, document in BMI chart and interpret | 3 | | 15 |
| PE19.6 | Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule | 5 | | 18 |
| PE24.15 | Perform NG tube insertion in a manikin | 2 | | 25 |
| PE24.16 | Perform IV cannulation in a mode | 2 | | 43 |
| PE24.17 | Perform intraosseous insertion model | 2 | | 44 |
| PE27.15 | Assess airway and breathing: recognize signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting | 3 | | 45 |
| PE27.16 | Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment | 3 | | 46 |
| PE27.17 | Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate | 3 | | 47 |
| PE27.18 | Assess airway and breathing: perform assisted ventilation by bag and mask in a simulated environment | 3 | | 48 |

| | | | | |
|---------|--|---|--|----|
| PE27.19 | Check for signs of shock i.e. pulse, blood pressure, CRT | 3 | | 49 |
| PE27.20 | Secure an IV access in a simulated Environment | 2 | | 43 |
| PE27.21 | Choose the type of fluid and calculate the fluid requirement in shock | 3 | | 50 |
| 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 | 3 | | 51 |
| PE27.23 | Assess for signs of severe dehydration | 3 | | 52 |
| PE27.28 | Provide BLS for children in manikin | 3 | | 53 |
| PE33.6 | Perform and interpret urine dip stick for sugar | 3 | | 26 |
| PE33.11 | Identify deviations in growth and plan appropriate referral | 2 | | 13 |
| PE34.6 | Identify a BCG scar | 3 | | 27 |
| PE34.7 | Interpret a Mantoux test | 3 | | 28 |
| PE34.11 | Perform AFB staining | 3 | | 29 |

Student's Signature

Signature of Faculty
(Name and Designation)

[illegible]

PROFESSIONAL YEAR II

LEARNING OBJECTIVES 1st CLINICAL POSTING (2 WEEKS)

At the end of the first posting, students are expected to:

1. Perform, interpret and document anthropometric measurements in children
 2. Use the appropriate growth chart for a child and interpret them correctly
 3. Perform, interpret and document nutritional history taking and development of a dietary plan for all children
 4. Perform, interpret and document developmental history taking in all children
 5. Conduct a developmental assessment in children and interpret them correctly
 6. Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule
-

PE 1.4 Perform anthropometric measurements, document in growth charts and Interpret

Minimum number required to certify-3*

Growth assessment

| No | Name | Age | Sex | Weight | | | Height/Length | | | MAC | | | HC | | | Wt for Ht | | |
|----|------|-----|-----|--------|---|---|---------------|---|---|-----|---|---|----|---|---|-----------|---|---|
| | | | | A | E | I | A | E | I | A | E | I | A | E | I | A | E | I |
| 1 | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |

A – Actual

E – Expected

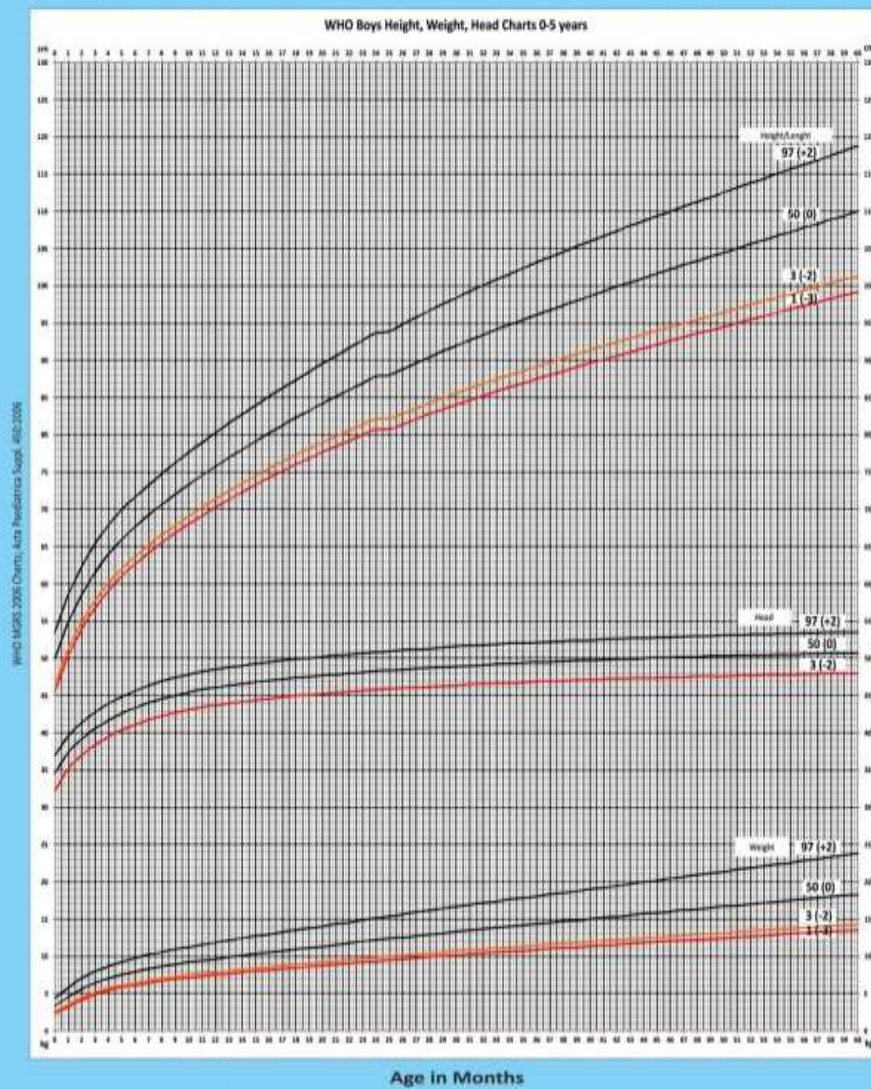
I – Inference

Using growth charts

Anthropometric values to be given here for each batch. They have to mark the values on the chart and interpret the growth pattern (No. Required - 3)

0 to 5 Years : WHO Boys Length/Height, Weight and Head Circumference Charts
(Z Scores are in Parenthesis)

Name : _____
DOB : _____



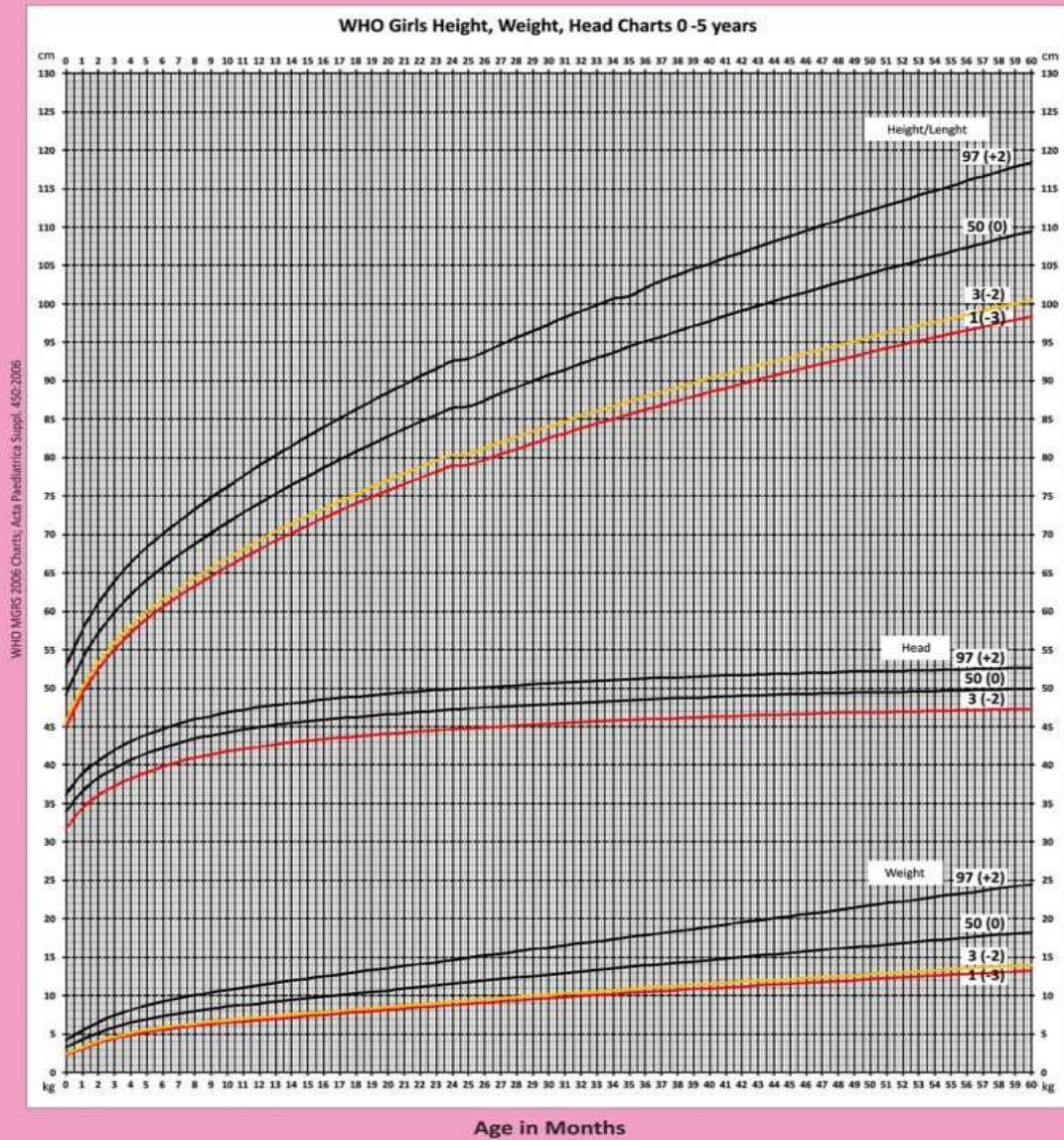
Interpretation:

- 1.
- 2.
- 3.

0 to 5 Years : WHO Girls Length/Height, Weight and Head Circumference Charts
(Z Scores are in Parenthesis)

Name : _____

DOB : _____

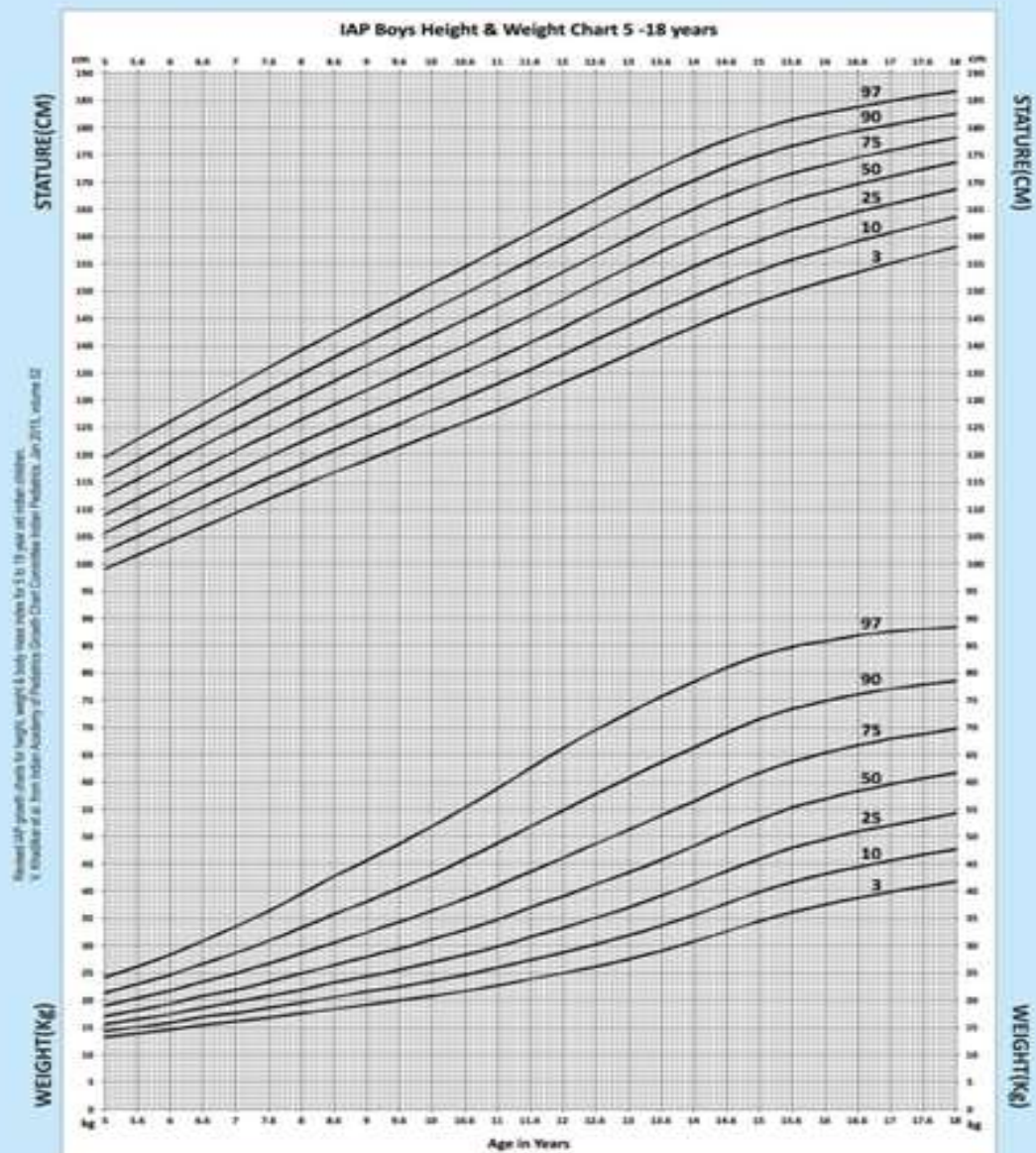


Interpretation:

- 1.
- 2.
- 3.

5 to 18 Years : IAP Boys Height and Weight Charts

Father's Height _____, Mother's Height _____, Target Height _____

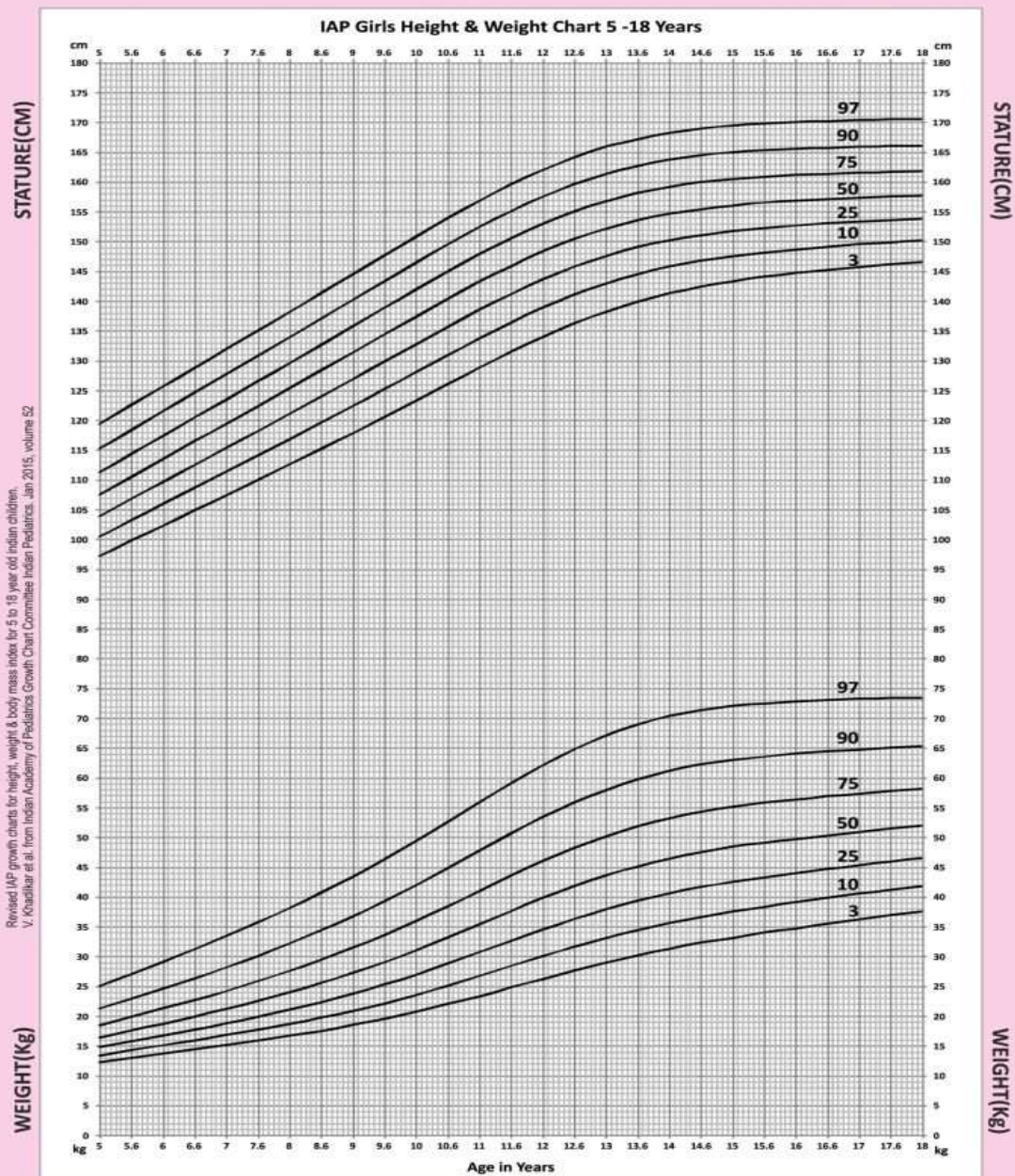


Interpretation:

- 1.
- 2.
- 3.

5 to 18 Years : IAP Girls Height and Weight Charts

Father's Height _____, Mother's Height _____, Target Height _____



Interpretation:

- 1.
- 2.
- 3.

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|------------------------------|---------------------------|--|
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PE33.11 Identify deviations in growth (Using the above growth charts) and plan appropriate referral.

Minimum number

required to certify-2

If requiring referral, mention the reasons for referral

(Case 1)

- 1.
- 2.
- 3.
- 4.
- 5.

(Case 2)

- 1.
- 2.
- 3.
- 4.
- 5.

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|------------------------------|---------------------------|--|
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PE1.7 Perform developmental assessment and interpret

Minimum number

required to certify-3

Take a detailed developmental history and perform developmental assessment. Indicate the present milestone attained in each category. Calculate the developmental age for each domain

[illegible]

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|------------------------------|---------------------------|--|
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PE11.5 Calculate BMI, document in BMI chart and interpret

Minimum number

required to certify-3

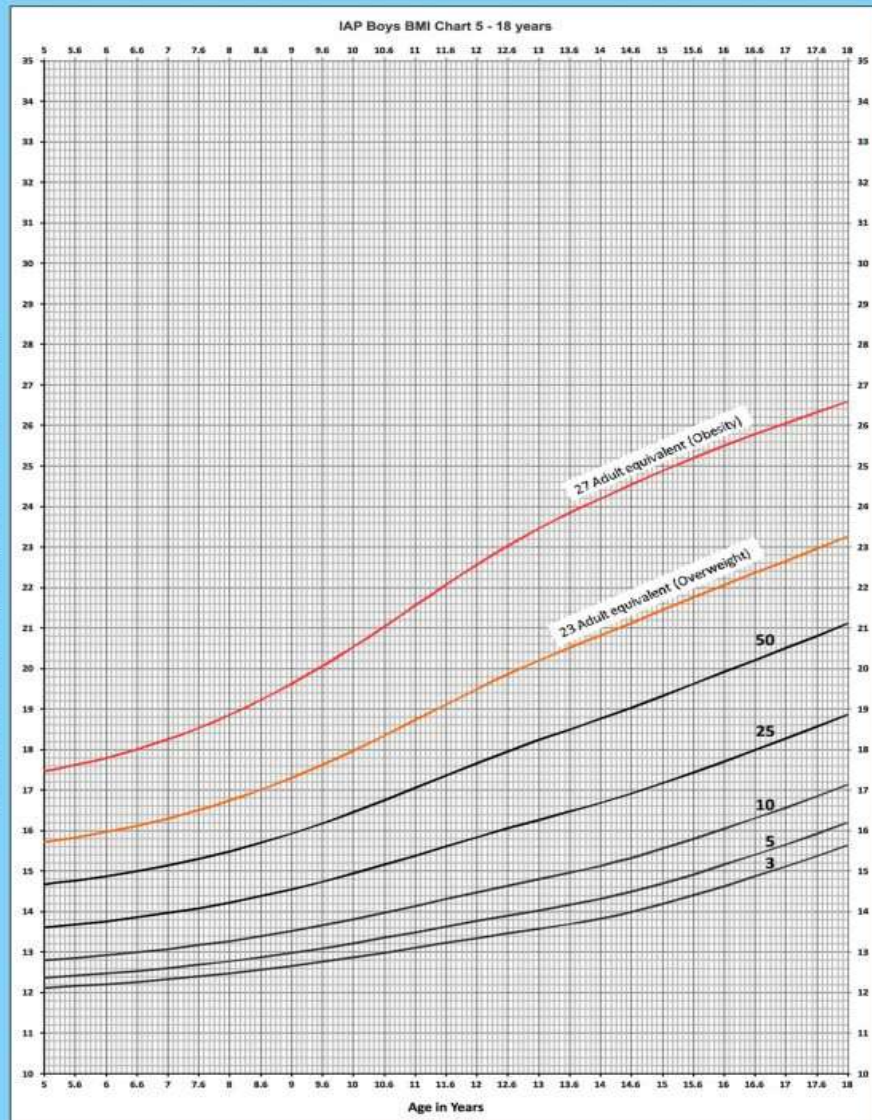
Calculate the BMI for 3 children (above 5 years) and enter in this table and also mark in the appropriate graph

| S. No | Name | Age | Sex | Weight | Height | BMI | Normal | Inference |
|-------|------|-----|-----|--------|--------|-----|--------|-----------|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |

5 to 18 Years : IAP Boys Body Mass Index Charts

Name _____
DOB _____

Revised IAP growth charts for height, weight & body mass index for 5 to 18 year old Indian children.
V. Khandelwal et al. from Indian Academy of Pediatrics Growth Chart Committee Indian Pediatrics, Jan 2015, volume 52



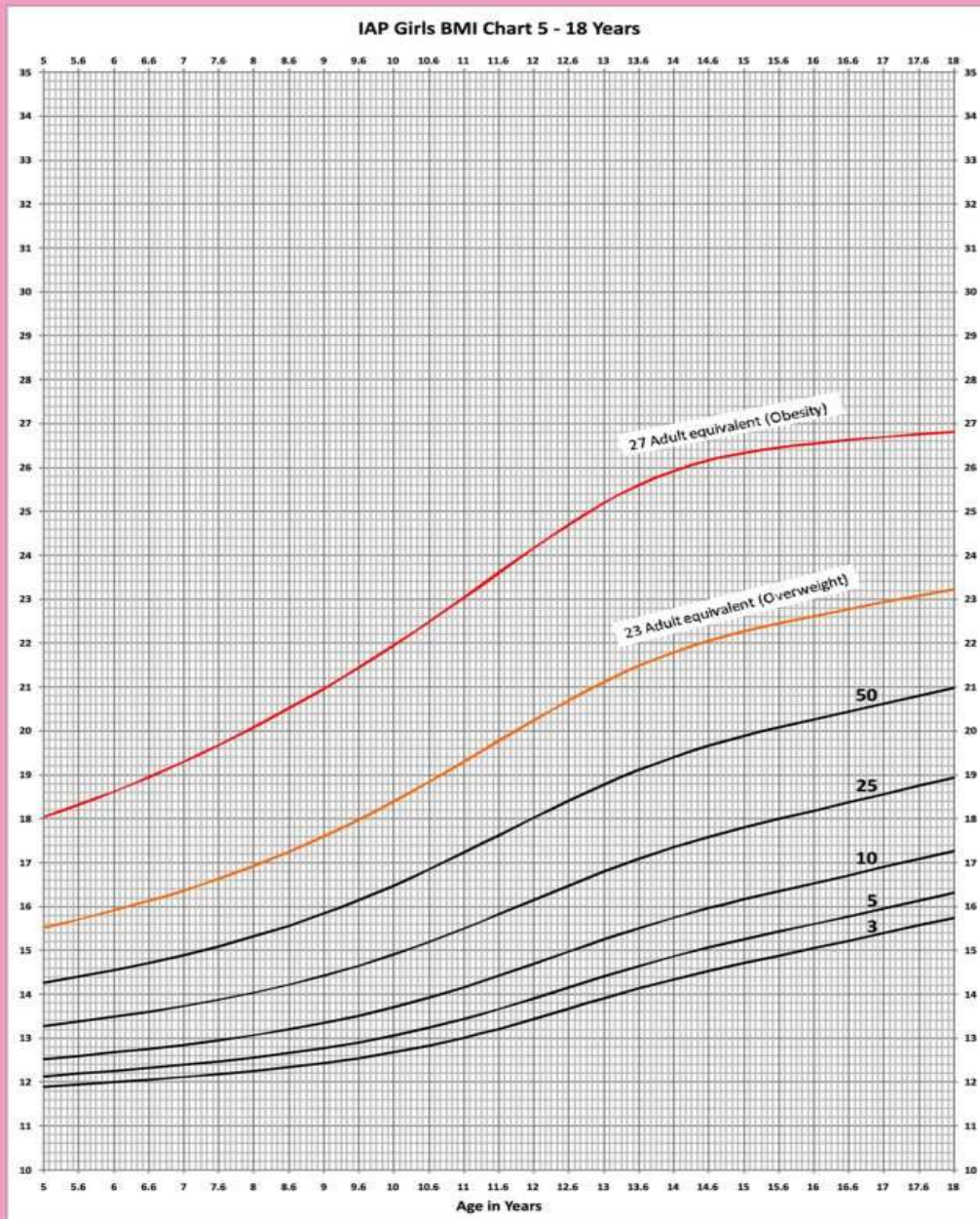
Interpretation:

- 1.
- 2.
- 3.

5 to 18 Years : IAP Girls Body Mass Index Charts

Name _____
DOB _____

Revised IAP growth charts for height, weight & body mass index for 5 to 18 year old Indian children.
V. Khadke et al. from Indian Academy of Pediatrics Growth Chart Committee Indian Pediatrics, Jan 2015, volume 52.



Interpretation:

- 1.
- 2.
- 3.

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|------------------------------|---------------------------|--|
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PE19.6 Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule

Minimum number

required to certify-5

Assessment of immunization status:

| S. No | Name | Age | Sex | Vaccines received till date | Plan for further immunisation |
|-------|------|-----|-----|-----------------------------|-------------------------------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|------------------------------|---------------------------|--|
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REFLECTIONS:

Your thoughts about the procedures requiring certification (any 7 where you committed mistakes)

[illegible]

PROFESSIONAL YEAR III PHASE I

LEARNING OBJECTIVES

1. Observe the correct technique of breast feeding and distinguish right from wrong techniques
2. Perform NG tube insertion in a manikin correctly
3. Perform and interpret urine dip stick for sugar correctly
4. Identify a BCG scar accurately
5. Interpret a Mantoux test correctly
6. Perform AFB staining correctly
7. Write 4 Paediatric and 1 neonatal case sheets

PE7.5 Observe the correct technique of breast feeding and distinguish right from wrong techniques

Minimum number required to certify-3

Observe the process of breast feeding (under supervision and a chaperone being present) and note the following points

Position of mother and baby.

Cradle. The baby is held in the crook or elbow area of the arm on same side as breast to be used for feeding; mother supports breast with opposite hand; baby's body is rolled in toward mother's body so they are belly-to-belly.

Cross-cradle. The baby's head is supported by the hand opposite the breast to be used for feeding; mother supports breast with hand; baby is rolled in toward mother's body belly-to-belly.

Football or clutch. Baby's head is supported by the hand on the same side as breast to be used for feeding; baby's body is supported on a pillow and tucked under the arm on the same side as breast to be used for feeding.

Side-lying using modified cradle. In this position, the baby lies next to the mother with their bodies facing each other. If a pillow under the arm is uncomfortable, try placing the baby in the crook of the arm. This way, it is unlikely for the mother to roll over on the baby should the mother doze off. This position also keeps the baby's head at a good angle to bring baby and breast together, with the baby's head higher than his or her tummy, which can be helpful for babies who are more likely to spit up.

Laid-back breastfeeding. In this position, the mother is leaning back in a recliner or reclining in bed. The baby is lying on his or her stomach and is pressed against the mother's body. She can support the side of her baby's head if baby cannot hold it by him- or herself. In this position, both mother and baby can relax. She can allow her baby to explore her breast and latch on at his or her leisure. This is a great position if mother has had a cesarean delivery.

Latching.

The latch should be comfortable and pain free.

The baby's chest and stomach rest against the mother's body, so that baby's head is straight, not turned to the side.

Baby's chin touches her breast.

Baby's mouth opens wide around her breast, not just the nipple.

Baby's lips turn out.

Baby's tongue cups under her breast.

Mother hears or sees swallowing.

| S. No | Position of mother | Position of child | Attachment (latching) | Comments |
|-------|--------------------|-------------------|-----------------------|----------|
| 1 | | | | |
| 2 | | | | |

| | | | | |
|---|--|--|--|--|
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|------------------------------|---------------------------|--|
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PE24.15 Perform NG tube insertion in a manikin

Minimum Number required to certify-2

Demonstrate the following steps in inserting a NG tube in a manikin

| S. No | Identify size of nasogastric tube as per age of child. | Demonstrate landmarks for measurement of length of NG tube to be inserted on a manikin | Correctly measure the length of NG tube to be inserted | Insert the tube and check its position |
|-------|--|--|--|--|
| | | | | |

| | | | | |
|---|--|--|--|--|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|------------------------------|---------------------------|--|
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PE33.6 Perform and interpret urine dip stick for sugar

Minimum number required to certify- 3

Demonstrate the steps to perform and interpret the urine dip stick for sugar

| S. no | Urine sugar by dipstick | Interpretation |
|-------|-------------------------|----------------|
| 1 | | |
| 2 | | |
| 3 | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|-----------------------------|---------------------------|--|
| | | | | | |
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| | | | | | |
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PE34.6 Identify a BCG scar

Minimum number

required to certify- 3

Demonstrate the following steps to identify a BCG scar

| S.No | Age of the child | Size of BCG scar | Quality of the scar |
|------|------------------|------------------|---------------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|-----------------------------|---------------------------|--|
| | | | | | |
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PE34.7 Interpret a Mantoux test

Minimum number

required to certify- 3

Demonstrate the following steps to interpret a Mantoux test

| S. No | Age | Measure induration (horizontal/transverse) | Interpretation |
|-------|-----|--|----------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|-----------------------------|---------------------------|--|
| | | | | | |
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PE34.11 Perform AFB staining

****Shared with Microbiology**

Minimum number required to certify- 3

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|-----------------------------|---------------------------|--|
| | | | | | |
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| | | | | | |
| | | | | | |

SUMMARY OF COMPETENCIES REQUIRING DOCUMENTATION
(to be observed in ward/PICU/NICU/LT)

| S. no | Competency no | Competency detail | Minimum No. to be done | Date completed | Faculty signature |
|--------------|----------------------|---|-------------------------------|-----------------------|--------------------------|
| 1 | 18.5 | Provide intra-natal care and observe the conduct of a normal delivery | 3 | | |
| 2 | 27.10 | Observe the various methods of administering Oxygen | 3 | | |
| 3 | 31.11 | Observe administration of Nebulization | 3 | | |

Competencies requiring documentation
(to be done as part of seminar, demonstration, case presentation)

| S.no | Competency no | Competency detail | Minimum No. to be done | T/L method | Date completed | Faculty signature |
|-------------|----------------------|--|-------------------------------|-------------------|-----------------------|--------------------------|
| 1 | 9.7 | Plan an appropriate diet in health and disease | 3 | | | |
| 2 | 11.3 | Assessment of a child with obesity with regard to eliciting history including physical activity, charting and dietary recall | 3 | | | |

| | | | | | | |
|----------|-------|---|----------|--|--|--|
| 3 | 12.3 | Identify the clinical features of dietary deficiency /excess of Vitamin A | 3 | | | |
| 4 | 12.4 | Diagnose patients with Vitamin A deficiency (VAD), classify and plan management | 3 | | | |
| 5 | 12.8 | Identify the clinical features of dietary deficiency of Vitamin D | 3 | | | |
| 6 | 12.9 | Assess patients with Vitamin D deficiency, diagnose, classify and plan management | 3 | | | |
| 7 | 12.17 | Identify the clinical features of Vitamin B complex deficiency | 3 | | | |
| 8 | 12.18 | Diagnose patients with vitamin B complex deficiency and plan management | 3 | | | |
| 9 | 12.21 | Identify the clinical features of | 3 | | | |

| | | | | | | |
|-----------|-------|---|----------|--|--|--|
| | | Vitamin C deficiency | | | | |
| 10 | 13.3 | Identify the clinical features of dietary deficiency of Iron and make a diagnosis | 3 | | | |
| 11 | 24.12 | Perform and interpret stool examination including Hanging Drop | 2 | | | |
| 12 | 27.31 | Assess child for signs of abuse | 2 | | | |
| 13 | 32.2 | Identify the clinical features of Down Syndrome | 3 | | | |
| 14 | 32.7 | Identify the clinical features of Turner Syndrome | 2 | | | |
| 15 | 32.12 | Identify the clinical features of Klinefelter Syndrome | 2 | | | |
| 16 | 33.10 | Recognize precocious and delayed Puberty and refer | 2 | | | |

| | | | | | | |
|-----------|------|--|----------|--|--|--|
| 17 | 20.6 | Explain the follow-up care for neonates including Breastfeeding, Temperature maintenance, immunization, importance of growth monitoring and red flags. | 3 | | | |
|-----------|------|--|----------|--|--|--|

**Competencies requiring documentation
(to be done by giving actual blood reports/case scenarios/x-rays/CT/MRI
/EEG/ECG reports)**

| S . no | Competency no | Competency detail | Minimum No. to be done | T/L method | Date completed | Faculty signature |
|-------------------|--------------------------|--|---------------------------------------|-----------------------|---------------------------|------------------------------|
| 1 | 28.16 | Interpret blood tests relevant to upper respiratory problems | 3 | | | |

| | | | | | | |
|----------|-------|--|----------|--|--|--|
| 2 | 29.15 | Perform and Interpret peripheral smear. | 3 | | | |
| 3 | 32.3 | Interpret normal Karyotype and recognize Trisomy 21 | 2 | | | |
| 4 | 32.8 | Interpret normal Karyotype and recognize Turner Karyotype | 2 | | | |
| 5 | 32.13 | Interpret normal Karyotype and recognize the Klinefelter Karyotype | 2 | | | |
| 6 | 34.9 | Interpret blood tests in the context of laboratory evidence for tuberculosis | 2 | | | |

AFFECTIVE COMPETENCIES REQUIRING DOCUMENTATION
(To be done as part of AETCOM)

| S. No | Competency no | Competency detail | Minimum No. to be done | Date completed | Faculty signature |
|--------------|----------------------|--|-------------------------------|-----------------------|--------------------------|
| 1 | 2.3 | Counseling a parent with failing to thrive child | 3 | | |
| 2 | 3.4 | Counsel a parent of a child with developmental delay | 3 | | |

| | | | | | |
|-----------|-------|---|----------|--|--|
| 3 | 6.8 | Respecting patient privacy and maintaining confidentiality while dealing with adolescence | 3 | | |
| 4 | 7.8 | Educate mothers on antenatal breast care and prepare mothers for lactation | 3 | | |
| 5 | 7.9 | Educate and counsel mothers for best practices in Breastfeeding | 3 | | |
| 6 | 7.10 | Respect patient privacy | 3 | | |
| 7 | 8.5 | Counsel and educate mothers on the best practices in complementary feeding | 3 | | |
| 8 | 10.5 | Counsel parents of children with SAM and MAM | 3 | | |
| 9 | 19.7 | Educate and counsel a patient for immunization | 3 | | |
| 10 | 19.8 | Demonstrate willingness to participate in the national and subnational immunization days | 3 | | |
| 11 | 20.5 | Counsel/educate mothers on the care of neonates | 3 | | |
| 12 | 21.16 | Counsel / educate a patient for referral appropriately | 3 | | |

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|-----------|-------|--|----------|--|--|
| 13 | 22.2 | Counsel a patient with Chronic illness | 3 | | |
| 14 | 23.18 | Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter | 3 | | |
| 15 | 29.19 | Counsel and educate patients about prevention and treatment of anemia. | 3 | | |
| 16 | 32.5 | Counsel parents regarding 1. Present child 2. Risk in the next pregnancy (Down syndrome) | 2 | | |
| 17 | 32.10 | Counsel parents regarding 1. Present child 2. Risk in the next pregnancy (Turner syndrome) | 2 | | |

SELF- DIRECTED LEARNING

List of Self-Directed Learning Topics

- 1.
 - 2.
 - 3.
 - 4.
 - 5.
 - 6.
 - 7.
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SELF- DIRECTED LEARNING:

1)

Topic:

Objectives:

Task:

Impressions:

2)
Topic:

Objectives:

Task:

Impressions:

INTEGRATED LEARNING

Summary of integrated learning sessions:

| S.No | Competency No. | Topic | Departments involved | Date |
|-------------|---------------------------|--------------|---------------------------------|-------------|
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REFLECTIONS:

Your thoughts about the procedures requiring certification (any 7 where you committed mistakes)

| Competency no | Competency details | Why I went wrong | Was this exercise useful | Faculty remarks |
|---------------|--------------------|------------------|--------------------------|-----------------|
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ELECTIVE POSTINGS (If done in Paediatrics)

| No of bl | Name of elective | Location of elective | Name of internal preceptor | Attendance | Daily rounds | Assignments | Case presentation | Remark of the precept |
|-------------------------|---------------------------------|-------------------------------------|---|-------------------|-------------------------|--------------------|------------------------------|--------------------------------------|
| 1 | | | | | | | | |
| 2 | | | | | | | | |

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PROFESSIONAL YEAR III PHASE II

LEARNING OBJECTIVES

1. Perform IV cannulation in a simulated environment
2. Perform intraosseous insertion in a simulated environment
3. Assess airway, breathing and circulation in a sick child, give appropriate and accurate treatment
4. Choose the type of fluid and calculate the fluid requirement in shock in children
5. Assess level of consciousness & provide emergency treatment to a child with convulsions/ coma
6. Assess for signs of severe dehydration
7. Provide BLS for children in a manikin
8. Write 4 Paediatric and 1 neonatal case sheet

PE24.16 / PE 27.20 Perform IV cannulation in a model

Minimum number required to certify-2

Perform IV cannulation in a manikin by observing the following steps

| S.no | Identify size of IV cannula as per age of child. | Demonstrate all steps of infection control policy like handwashing, wearing gloves, proper filling of fluid in syringe | Choose and prepare the site | Correctly insert the cannula and look for free flow of blood | Fix the cannula and properly dispose the biomedical waste |
|------|--|--|-----------------------------|--|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE24.17 Perform intraosseous insertion in a model

Minimum number

required to certify-2

Perform intraosseous insertion in a model in these following steps

| S.no | Identify site for intraosseous insertion in children based on landmarks. | Demonstrate all steps of infection control | Insert the Intraosseous cannula and demonstrate how to check its proper insertion in model | Fix Intraosseous cannula and correctly demonstrate disposal of biomedical waste |
|------|--|--|--|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.15 Assess airway and breathing: recognize signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting

Minimum number

required to certify- 3

Check for the following signs in a child with respiratory distress

| S.no | Respiratory rate | Intercostal retractions | Alae nasi flaring | Drowsiness | Grunt or stridor | Cyanosis |
|------|------------------|-------------------------|-------------------|------------|------------------|----------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.16 Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment

Minimum number required to certify- 3

Assess whether the student performs the steps in a correct manner

| S.no | Head tilt manoeuvre performed | Chin lift manoeuvre performed | Jaw thrust manoeuvre performed | Remarks of the facilitator |
|------|-------------------------------|-------------------------------|--------------------------------|----------------------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.17 Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate

Minimum number

required to certify- 3

Demonstrate the various methods of administering oxygen and at specific rates

| S. no | Head box | Nasal cannula | High flow nasal cannula | Face mask | Non rebreathing mask | Rate of delivery of oxygen |
|-------|----------|---------------|-------------------------|-----------|----------------------|----------------------------|
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| 2 | | | | | | |
| 3 | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.18 Assess airway and breathing: perform assisted ventilation by Bag and mask in a simulated environment

Minimum number required to certify- 3

Demonstrate assisted ventilation using bag and mask in a simulated environment

| S. no | Chosen the correct size mask | Chosen the correct bag | Head and neck in proper position | Used the correct pressure to inflate | Looked for chest rise | Used the correct rate of ventilation |
|-------|------------------------------|------------------------|----------------------------------|--------------------------------------|-----------------------|--------------------------------------|
| 1 | | | | | | |

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|---|--|--|--|--|--|--|
| 2 | | | | | | |
| 3 | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.19 Check for signs of shock i.e., Pulse, Blood Pressure, Capillary Refill time

Minimum number required to certify- 3

Check for the signs of shock

| S. no | Check for volume of pulse | Check BP | Check for saturation | Check for CRT | Check for skin colour and temperature | Check for sensorium |
|-------|---------------------------|----------|----------------------|---------------|---------------------------------------|---------------------|
| 1 | | | | | | |
| 2 | | | | | | |

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| 3 | | | | | | |
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| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.21 Choose the type of fluid and calculate the fluid requirement in shock

Minimum number required to certify- 3

Choose appropriate fluid according to different types of shock. Calculate the fluid for managing different types of shock at different age/size of the child.

| S.no | Type of shock | Assess weight of child | Choose the appropriate fluid for bolus administration | Calculate the amount of fluid to be administered for bolus and continuation | Remarks |
|------|---------------|------------------------|---|---|---------|
| 1 | Hypovolemic | | | | |
| 2 | Septic | | | | |
| 3 | Cardiogenic | | | | |

| | | | | | |
|---|-------------|--|--|--|--|
| 4 | Obstructive | | | | |
| 5 | Burns | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|-----------------------------|---------------------------|--|
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PE27.22 Assess level of consciousness & provide emergency treatment to a child with convulsions/ coma

Minimum number required to certify- 3

| S. no | Assess level of consciousness (Glasgow or AVPU) | Position a child in coma correctly | Position a child with head/spine trauma correctly | Assess ABCD | Demonstrate how to give rectal diazepam | Calculate how much IV diazepam and give it correctly in a manikin | Adminis nasal midazol spray |
|-------|---|------------------------------------|---|-------------|---|---|-----------------------------|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|-----------------------------|---------------------------|--|
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PE27.23 Assess for signs of severe dehydration

Minimum number required to certify- 3

| S.no | Thirst | Urine output | Sensorium | Mucus membrane | Skin turgor | Pulse | Blood pressure | AF if open |
|------|--------|--------------|-----------|----------------|-------------|-------|----------------|------------|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.28 Provide BLS for children in manikin

Minimum number required to certify- 3

Either a certificate that they have attended a formal BLS course or a modified BLS session has to be attached

| S.No | Check for response | Call for help | Check pulse and breathing simultaneously | Start chest compression | Make airway patent and give 2 rescue breaths | Repeat above CPR |
|------|--------------------|---------------|--|-------------------------|--|------------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|-----------------------------|---------------------------|--|
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SUMMARY OF COMPETENCIES REQUIRING DOCUMENTATION
(to be done as part of seminar, demonstration, case presentation)

| S.no | Competency no | Competency detail | Minimum No. to be done | T/L method | Date completed | Faculty signature |
|----------|---------------|--|------------------------|------------|----------------|-------------------|
| 1 | 21.9 | Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Ichthyosis, anasarca | 3 | | | |
| 2 | 21.10 | Analyze symptom and interpret the physical findings and arrive at an appropriate | 3 | | | |

| | | | | | | |
|----------|-------|---|----------|--|--|--|
| | | provisional differential diagnosis | | | | |
| 3 | 21.14 | 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, Phimosi, undescended testis, Chordee, hypospadias, Torsion testis, hernia Hydrocele, Vulval Synechiae | 3 | | | |
| 4 | 21.16 | Counsel / educate a patient for referral appropriately | 3 | | | |
| 5 | 23.11 | Develop a treatment plan and prescribe appropriate drugs including fluids in cardiac | 3 | | | |

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|--|--|--|--|--|--|--|
| | | diseases, anti - failure drugs, and inotropic agents | | | | |
|--|--|--|--|--|--|--|

**Competencies requiring documentation
(To be done as part of IMNCI assessment)**

| S. no | Competency no | Competency detail | Minimum No.to be done | Date completed | Faculty signature |
|--------------|----------------------|---|------------------------------|-----------------------|--------------------------|
| 1 | 10.4 | Identify children with under nutrition as per IMNCI criteria and plan referral | 3 | | |
| 2 | 16.2 | Assess children <2 months using IMNCI guidelines | 3 | | |
| 3 | 16.3 | Assess children >2 months to 5 years using IMNCI guidelines and stratify risk | 3 | | |
| 4 | 20.18 | Identify and stratify risk in a sick neonate using IMNCI guidelines | 3 | | |
| 5 | 24.11 | Apply the IMNCI guidelines in risk stratification of children with diarrhoeal dehydration and refer | 3 | | |
| 6 | 28.15 | Stratify risk in children with stridor using IMNCI guidelines | 3 | | |

**Competencies requiring documentation
(to be done in a simulated environment)**

| S. no | Competency no | Competency detail | Minimum No. to be done | Date completed | Faculty signature |
|--------------|----------------------|---|-------------------------------|-----------------------|--------------------------|
| 1 | 18.4 | Provide intra-natal care and conduct a normal delivery in a simulated environment | 3 | | |
| 2 | 19.13 | Demonstrate the correct administration of different vaccines in a mannequin | 3 | | |
| 3 | 20.3 | Perform Neonatal resuscitation in a manikin | 3 | | |
| 4 | 26.10 | Demonstrate the technique of liver biopsy in a manikin Perform Liver Biopsy in a simulated environment | 2 | | |
| 5 | 29.17 | Demonstrate performance of bone marrow aspiration in mannequin. | 2 | | |

**Competencies requiring documentation
(to be done by giving actual blood reports/case scenarios/x-rays/CT/MRI/
EEG/ECG reports)**

| S. no | Competency no | Competency detail | Minimum No. to be done | T/L method | Date completed | Faculty signature |
|--------------|----------------------|---|-------------------------------|-------------------|-----------------------|--------------------------|
| 1 | 21.12 | Interpret report of Plain X Ray of KUB | 3 | | | |
| 2 | 21.13 | Enumerate the indications for and Interpret the written report of Ultra sonogram of KUB | 3 | | | |
| 3 | 23.12 | Interpret a chest X ray and recognize Cardiomegaly | 3 | | | |
| 4 | 23.13 | Choose and Interpret blood reports in Cardiac illness | 3 | | | |
| 5 | 23.14 | Interpret Pediatric ECG | 3 | | | |
| 6 | 23.15 | Use the ECHO reports in management of cases | 3 | | | |
| 7 | 24.13 | Interpret RFT and electrolyte report | 3 | | | |
| 8 | 30.20 | Interpret and explain the findings in a CSF analysis | 3 | | | |
| 9 | 30.21 | Enumerate the indication and discuss the | 3 | | | |

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|-----------|-------|--|----------|--|--|--|
| | | limitations of EEG, CT, MRI | | | | |
| 10 | 30.22 | Interpret the reports of EEG, CT, MRI | 3 | | | |
| 11 | 34.9 | Interpret blood tests in the context of laboratory evidence for tuberculosis | 3 | | | |

**AFFECTIVE COMPETENCIES REQUIRING DOCUMENTATION
(To be done as part of AETCOM)**

| S. no | Competency no | Competency detail | Minimum No. to be done | Date completed | Faculty signature |
|--------------|----------------------|--|-------------------------------|-----------------------|--------------------------|
| 1 | 23.18 | Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter | 3 | | |
| 2 | 26.13 | Counsel and educate patients and their family appropriately on liver diseases | 3 | | |

| | | | | | |
|----------|-------|--|----------|--|--|
| 3 | 27.32 | Counsel parents of dangerously ill/ terminally ill child to break a bad news | 2 | | |
| 4 | 27.33 | Obtain Informed Consent | 2 | | |
| 5 | 27.34 | Willing to be a part of the ER team | 3 | | |
| 6 | 27.35 | Attends to emergency calls promptly | 3 | | |

SELF-DIRECTED LEARNING

List of Self-Directed Learning Topics

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
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- 14.
- 15.

SELF-DIRECTED LEARNING:

1)
Topic:

Objectives:

Task:

Impressions:

**2)
Topic:**

Objectives:

Task:

Impressions:

INTEGRATED LEARNING

Summary of integrated learning sessions

| S.No | Competency No | Topic | Departments involved | Date |
|-------------|----------------------|--------------|---------------------------------|-------------|
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REFLECTIONS:

Your thoughts about the procedures requiring certification (any 7 where you committed mistakes)

| Competency no | Competency details | Why I went wrong | Was this exercise useful | Faculty remarks |
|---------------|--------------------|------------------|--------------------------|-----------------|
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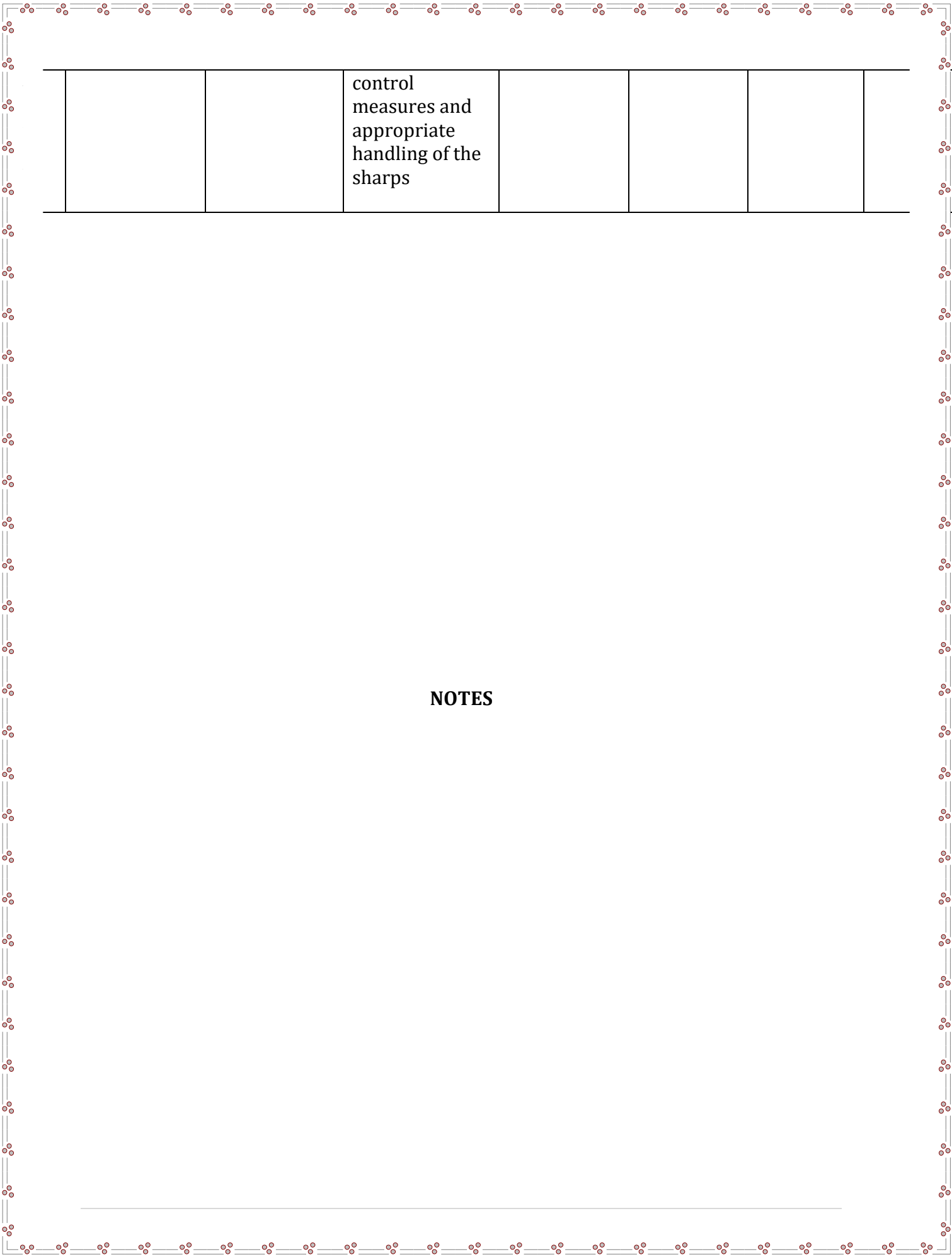
Other activities :

1. Participation in departmental activities- children's day, breast feeding week, ORS week, disease specific days (if being celebrated)
2. STS/ college grant project submitted
3. Participation in IAP quiz competition
4. Participation in any research projects/student conference

CLINIC/FIELD VISITS

| Sl. no | Visit to | Competency no | Competency | Year/Phase | Date completed | Report submitted | Faculty sign | Remarks |
|---------------|------------------------|----------------------|--|-------------------|-----------------------|-------------------------|---------------------|----------------|
| | Child development unit | 3.7 | Visit a Child Developmental Unit and Observe its functioning Topic: Developmental delay and cerebral palsy | | | | | |

| | | | | | | |
|-----------------------|-------|---|--|--|--|--|
| Child guidance clinic | 4.6 | Visit to the Child guidance clinic Topic: Scholastic backwardness, learning disabilities, Autism, ADHD | | | | |
| | 5.11 | Visit to Child guidance clinic and observe functioning Topic: Common problems related to behaviour | | | | |
| Adolescent clinic | 6.11 | Visit to the Adolescent clinic | | | | |
| Rural health centre | 18.8 | Observe the implementation of the program by visiting the Rural Health Center | | | | |
| Immunization clinic | 19.10 | Observe the handling and storing of vaccines | | | | |
| | 19.11 | Document Immunization in an immunization record | | | | |
| | 19.12 | Observe the administration of UIP vaccines | | | | |
| | 19.14 | Practice Infection | | | | |

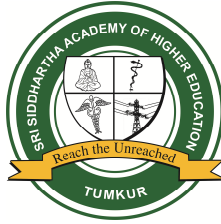


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| | | | control measures and appropriate handling of the sharps | | | | |
|--|--|--|---|--|--|--|--|

NOTES

NOTES

Sri Siddhartha Academy of Higher Education, Tumkur



UNDER GRADUATE PAEDIATRIC

LOG BOOK

As per Competency-Based Medical

Education Curriculum

Sample template

College
Logo

Student's
Stamp size
photo

(Name of the medical college)

DEPARTMENT OF PAEDIATRICS

UNDERGRADUATE PAEDIATRIC

LOG BOOK

Name of the student:

Contact Number:

Email id:

Date of admission to MBBS course:

Date of beginning of the current phase:

Reg. No. (College ID):

Reg. No. (University ID):

Sample template

DEPARTMENT OF PAEDIATRICS

(Name of the medical college)

LOG BOOK CERTIFICATE

Certified that this is a bonafide record of the work done by

_____ in the department during his/her clinical postings.

He/she will be appearing for the Final M.B.B.S.(Phase 3, part 2) examination of Sri

Sri Siddhartha Academy of Higher Education, Tumkur, in February/August 20

Signature of faculty

Signature of Head of the department

Name :

Reg No. :

Batch :

Posting in the Dept :

From

To

I

II

III

ATTENDANCE

| | | Classes held | Classes attended | Percentage | Faculty sign |
|--------------------------------|-------|--------------|------------------|------------|--------------|
| Clinical Posting | I | | | | |
| | II | | | | |
| | III | | | | |
| Theory Attendance | PY3P1 | | | | |
| | PY3P2 | | | | |
| Small group discussions | PY3P1 | | | | |
| | PY3P2 | | | | |

| INTERNAL ASSESSMENT MARKS | | |
|--|-----------------------------|-------------------------|
| | Theory | Clinicals |
| | 1st test: | 1st : |
| | 2nd test: | 2nd: |
| | | 3rd: |
| Final Internal Assessment Marks | | |

INDEX

| S. NO: | CONTENT | PAGE NUMBER |
|---------------------------------------|--------------------------------------|------------------------|
| 4. | Abbreviations | 2 |
| 5. | Summary of Certifiable Competencies | 3-4 |
| 6. | Documentation of Case Presentations | 5 |
| PROFESSIONAL YEAR II | | |
| 4. | Learning objectives | 7 |
| 5. | Certifiable competencies | 8-19 |
| 6. | Reflections | 20 |
| PROFESSIONAL YEAR III PHASE I | | |
| 8. | Learning objectives | 22 |
| 9. | Certifiable competencies | 23-29 |
| 10. | Competencies requiring documentation | 29-33 |
| 11. | AETCOM competencies | 34-35 |
| 12. | Self directed learning | 36-37 |
| 13. | Integrated learning | 38 |
| 14. | Reflections | 39 |
| | ELECTIVES IN PAEDIATRICS | 40 |
| PROFESSIONAL YEAR III PHASE II | | |
| 8. | Learning objectives | 42 |
| 9. | Certifiable competencies | 43-53 |
| 10. | Competencies requiring documentation | 54-58 |
| 11. | AETCOM competencies | 59 |
| 12. | Self directed learning | 60-61 |
| 13. | Integrated learning | 62 |

| | | |
|-----|-----------------------------|-------|
| 14. | Reflections | 63 |
| | CLINIC/ FIELD VISITS | 64-65 |

ABBREVIATIONS

F / R / RE – First or Only / Repeat / Remedial

- First or only – Student completed the task in the first attempt
- Repeat – Student completed the task in multiple attempts
- Remedial – Student completed the task after remedial measures

B / M / E – Below expectation / Meets expectation / Exceeds expectation

- Below expectation – Student did not complete the task
- Meets Expectation – Student completed the task with minimal prompts
- Exceeds expectation – Student completed the task without any prompts

C / R / RE – Completed / Repeat / Remedial

- Completed – Student has successfully completed the task
- Repeat – Student had to repeat the task in the same briefing
- Remedial – Student needs to undergo briefing again and repeat the task

AETCOM – Attitude, Ethics and Communication Module

SUMMARY OF CERTIFIABLE COMPETENCIES

| Competency no. | Competency details | No required to certify | Date completed | Reference page no |
|-----------------------|--|-------------------------------|-----------------------|--------------------------|
| PE1.4 | Perform anthropometric measurements, document in growth charts and interpret | 3 | | 8 |
| PE1.7 | Perform developmental assessment and interpret | 3 | | 14 |
| PE 7.5 | Observe the correct technique of breast feeding and distinguish right from wrong techniques | 3 | | 23 |
| PE11.5 | Calculate BMI, document in BMI chart and interpret | 3 | | 15 |
| PE19.6 | Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule | 5 | | 18 |
| PE24.15 | Perform NG tube insertion in a manikin | 2 | | 25 |
| PE24.16 | Perform IV cannulation in a mode | 2 | | 43 |
| PE24.17 | Perform intraosseous insertion model | 2 | | 44 |

| | | | | |
|---------|--|---|--|----|
| PE27.15 | Assess airway and breathing: recognize signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting | 3 | | 45 |
| PE27.16 | Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment | 3 | | 46 |
| PE27.17 | Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate | 3 | | 47 |
| PE27.18 | Assess airway and breathing: perform assisted ventilation by bag and mask in a simulated environment | 3 | | 48 |
| PE27.19 | Check for signs of shock i.e. pulse, blood pressure, CRT | 3 | | 49 |
| PE27.20 | Secure an IV access in a simulated Environment | 2 | | 43 |
| PE27.21 | Choose the type of fluid and calculate the fluid requirement in shock | 3 | | 50 |
| PE27.22 | Assess level of consciousness & provide emergency treatment to a child with convulsions/coma3 Position an unconscious3 child Position a child with suspected trauma Administer IV/per rectal Diazepam for a convulsing child in a simulated environment | 3 | | 51 |
| PE27.23 | Assess for signs of severe dehydration | 3 | | 52 |

| | | | | |
|---------|---|---|--|----|
| PE27.28 | Provide BLS for children in manikin | 3 | | 53 |
| PE33.6 | Perform and interpret urine dip stick for sugar | 3 | | 26 |
| PE33.11 | Identify deviations in growth and plan appropriate referral | 2 | | 13 |
| PE34.6 | Identify a BCG scar | 3 | | 27 |
| PE34.7 | Interpret a Mantoux test | 3 | | 28 |
| PE34.11 | Perform AFB staining | 3 | | 29 |

Student's Signature

Signature of Faculty
(Name and Designation)

DOCUMENTATION OF CASE PRESENTATIONS

| S. No | Date | Patient Name and ID | Diagnosis | Case Presented/ Attended (P/A) | Year/ Phase | Grade (B/M/E) | Teacher's Signature |
|-------|------|---------------------|-----------|--------------------------------|-------------|---------------|---------------------|
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PROFESSIONAL YEAR II

LEARNING OBJECTIVES 1st CLINICAL POSTING (2 WEEKS)

At the end of the first posting, students are expected to:

7. Perform, interpret and document anthropometric measurements in children
8. Use the appropriate growth chart for a child and interpret them correctly
9. Perform, interpret and document nutritional history taking and development of a dietary plan for all children
10. Perform, interpret and document developmental history taking in all children
11. Conduct a developmental assessment in children and interpret them correctly
12. Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule

PE 1.4 Perform anthropometric measurements, document in growth charts and Interpret

Minimum number required to certify-3*

Growth assessment

| No | Name | Age | Sex | Weight | | | Height/Length | | | MAC | | | HC | | | Wt for Ht | | |
|----|------|-----|-----|--------|---|---|---------------|---|---|-----|---|---|----|---|---|-----------|---|---|
| | | | | A | E | I | A | E | I | A | E | I | A | E | I | A | E | I |
| 1 | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |

A – Actual E – Expected I – Inference

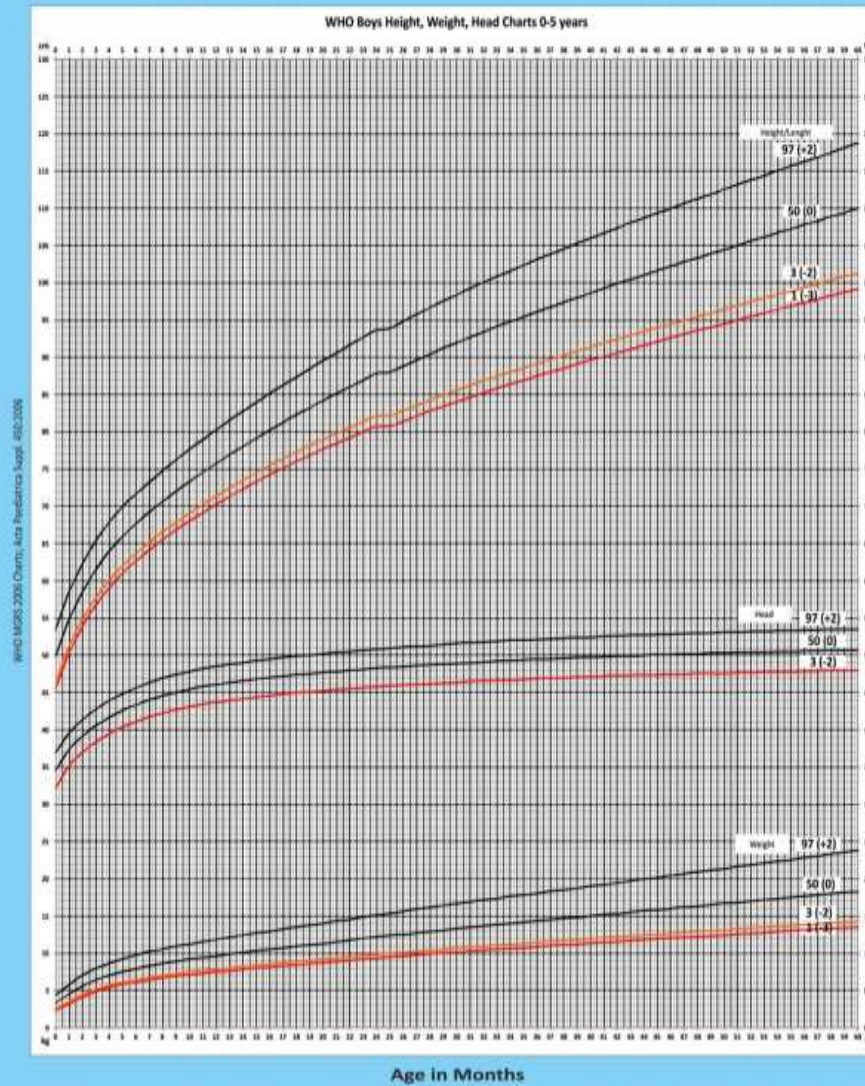
Using growth charts

Anthropometric values to be given here for each batch. They have to mark the values on the chart and interpret the growth pattern (No. Required - 3)

0 to 5 Years : WHO Boys Length/Height, Weight and Head Circumference Charts
(Z Scores are in Parenthesis)

Name : _____

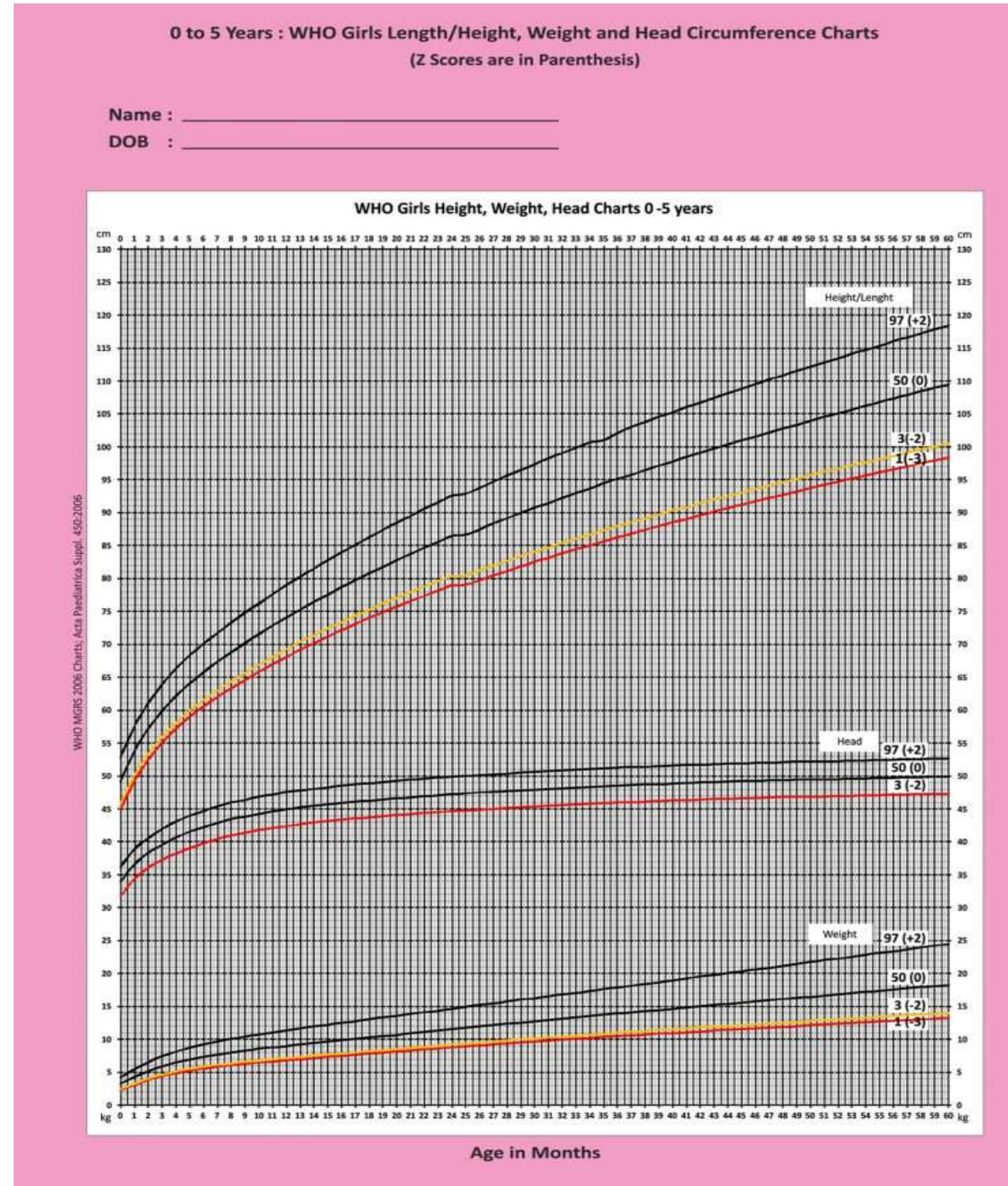
DOB : _____



Interpretation:

- 1.
- 2.

3.

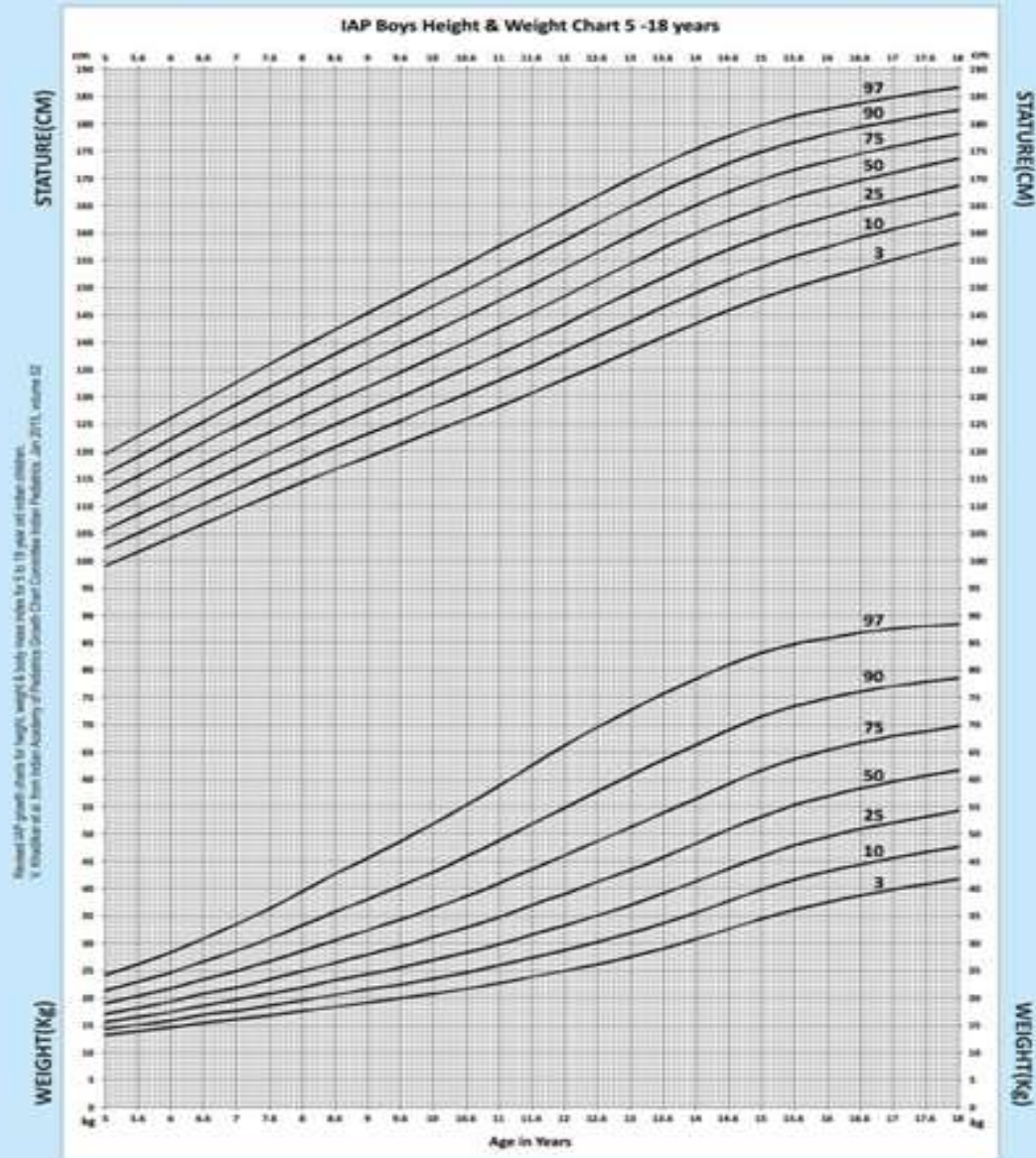


Interpretation:

- 1.
- 2.
- 3.

5 to 18 Years : IAP Boys Height and Weight Charts

Father's Height _____, Mother's Height _____, Target Height _____

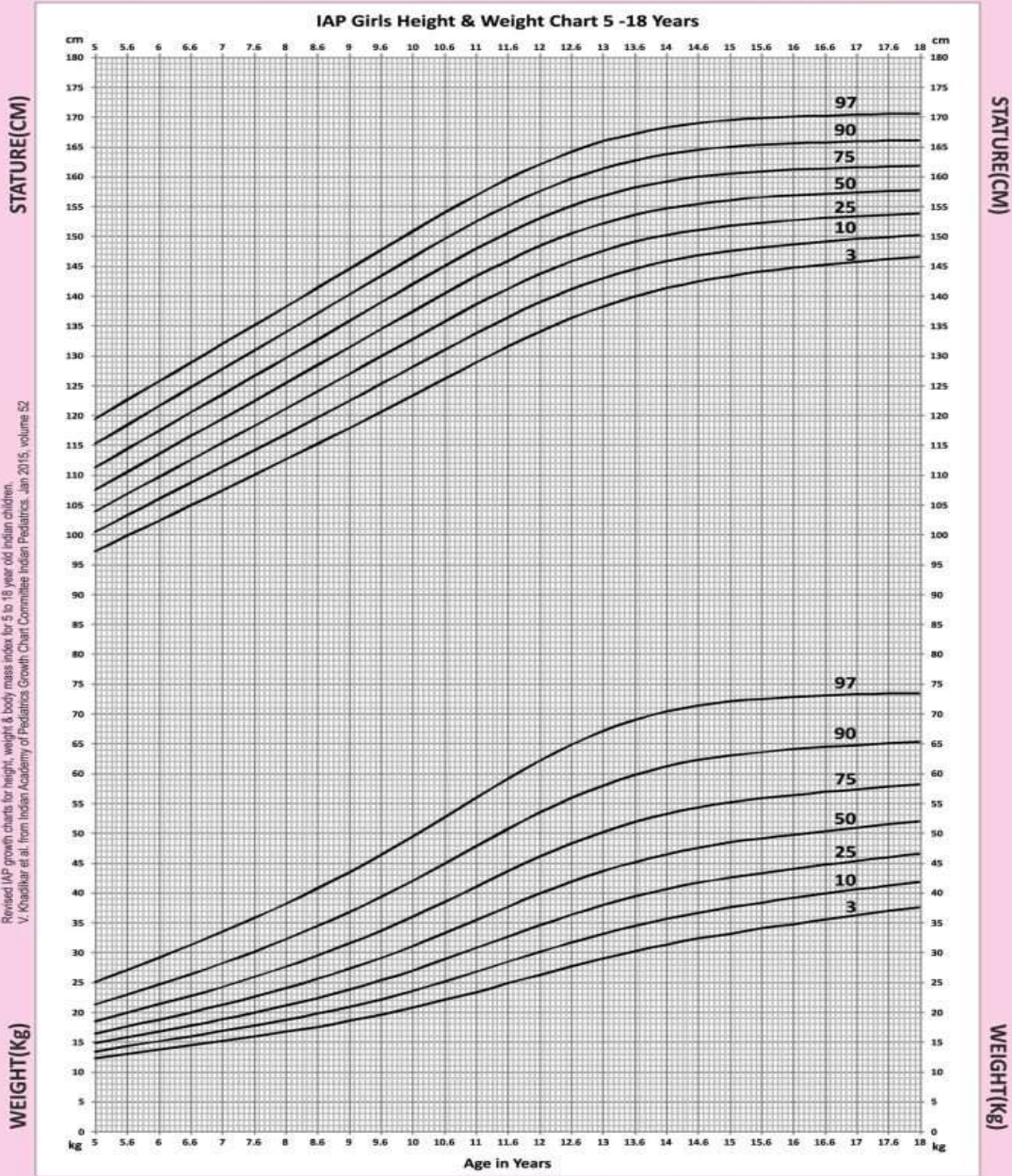


Interpretation:

- 1.
- 2.
- 3.

5 to 18 Years : IAP Girls Height and Weight Charts

Father's Height _____, Mother's Height _____, Target Height _____



Interpretation:

- 1.
- 2.
- 3.

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|------------------------------|---------------------------|--|
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5.

(Case 2)

- 1.
- 2.
- 3.
- 4.
- 5.

PE33.11 Identify deviations in growth (Using the above growth charts) and plan appropriate referral.

Minimum

number required to certify-2

If requiring referral, mention the reasons for referral

(Case 1)

- 1.
- 2.
- 3.
- 4.

| | | | | | | | | | | | | |
|----------------|------|--------------------------------|-----|----------------|------------|------------------------------|--------|---------------------------|----|--|---|-----------|
| Date Completed | | Attempt at Competency (F/R/Re) | | Rating (B/M/E) | | Decision of Faculty (C/R/Re) | | Initial of Faculty & Date | | Feedback Received Initial of Learner with Date | | |
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| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| S. No | Name | Age | Sex | Gross Motor | Fine Motor | Language | Social | Developmental age | | | | Inference |
| | | | | | | | | GM | FM | L | S | |
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| Date Completed | | Attempt at Competency (F/R/Re) | | Rating (B/M/E) | | Decision of Faculty (C/R/Re) | | Initial of Faculty & Date | | Feedback Received Initial of Learner with Date | | |

PE1.7 Perform developmental assessment and interpret

Minimum

number required to certify-3

Take a detailed developmental history and perform developmental assessment. Indicate the present milestone attained in each category. Calculate the developmental age for each domain

| | | | | | |
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PE11.5 Calculate BMI, document in BMI chart and interpret

Minimum number required to certify-3

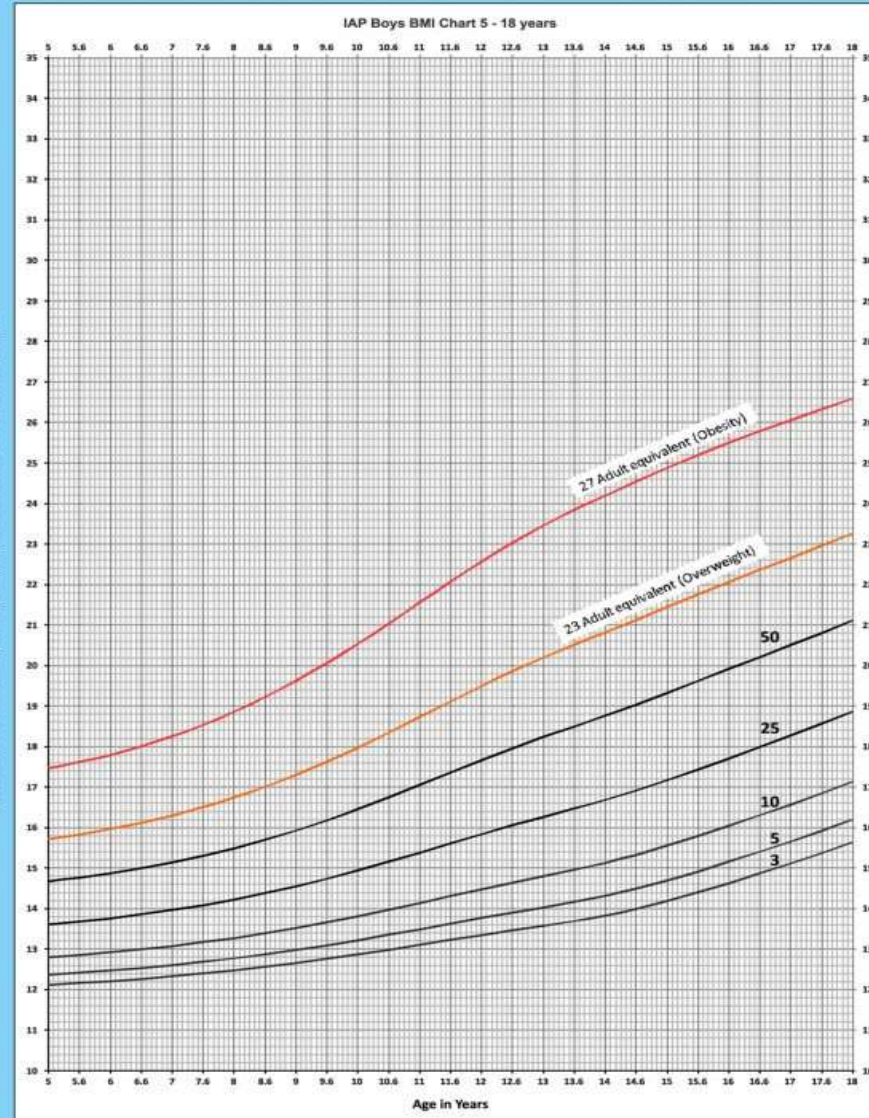
Calculate the BMI for 3 children (above 5 years) and enter in this table and also mark in the appropriate graph

| S. No | Name | Age | Sex | Weight | Height | BMI | Normal | Inference |
|-------|------|-----|-----|--------|--------|-----|--------|-----------|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |

5 to 18 Years : IAP Boys Body Mass Index Charts

Name _____
DOB _____

Revised IAP growth charts for height, weight & body mass index for 5 to 18 year old Indian children.
V. Koulour et al. from Indian Academy of Paediatrics Growth Chart Committee Indian Paediatrics, Jan 2015, volume 52



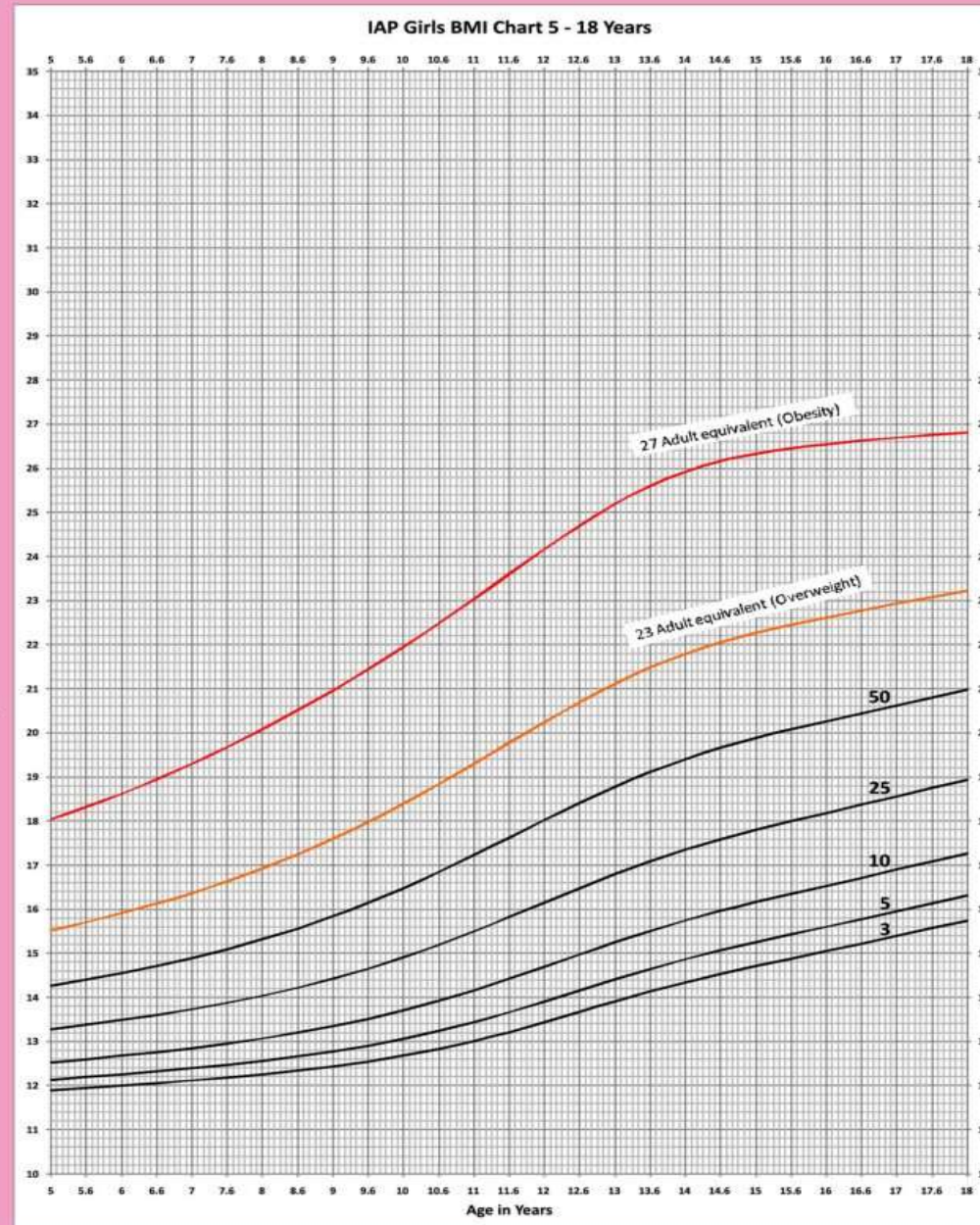
Interpretation:

- 1.
- 2.
- 3.

5 to 18 Years : IAP Girls Body Mass Index Charts

Name _____
DOB _____

Revised IAP growth charts for height, weight & body mass index for 5 to 18 year old Indian children.
V. Khandelwal et al. from Indian Academy of Pediatrics Growth Chart Committee Indian Pediatrics, Jan 2015, volume 52.



Interpretation:

- 1.
- 2.
- 3.

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE19.6 Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule

Minimum number required to certify-5

Assessment of immunization status:

| S. No | Name | Age | Sex | Vaccines received till date | Plan for further immunisation |
|-------|------|-----|-----|-----------------------------|-------------------------------|
| 1 | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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REFLECTIONS:

Your thoughts about the procedures requiring certification (any 7 where you committed mistakes)

| Competency no | Competency details | Why I went wrong | Was this exercise useful | Faculty remarks |
|------------------|--------------------|---------------------|-----------------------------|--------------------|
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PROFESSIONAL YEAR III PHASE I

LEARNING OBJECTIVES

1. Observe the correct technique of breast feeding and distinguish right from wrong techniques
2. Perform NG tube insertion in a manikin correctly
3. Perform and interpret urine dip stick for sugar correctly
4. Identify a BCG scar accurately
5. Interpret a Mantoux test correctly
6. Perform AFB staining correctly
7. Write 4 Paediatric and 1 neonatal case sheets

PE7.5 Observe the correct technique of breast feeding and distinguish right from wrong techniques

Minimum number required to certify-3

Observe the process of breast feeding (under supervision and a chaperone being present) and note the following points

Position of mother and baby.

Cradle. The baby is held in the crook or elbow area of the arm on same side as breast to be used for feeding; mother supports breast with opposite hand; baby's body is rolled in toward mother's body so they are belly-to-belly.

Cross-cradle. The baby's head is supported by the hand opposite the breast to be used for feeding; mother supports breast with hand; baby is rolled in toward mother's body belly-to-belly.

Football or clutch. Baby's head is supported by the hand on the same side as breast to be used for feeding; baby's body is supported on a pillow and tucked under the arm on the same side as breast to be used for feeding.

Side-lying using modified cradle. In this position, the baby lies next to the mother with their bodies facing each other. If a pillow under the arm is uncomfortable, try placing the baby in the crook of the arm. This way, it is unlikely for the mother to roll over on the baby should the mother doze off. This position also keeps the baby's head at a good angle to bring baby and breast together, with the baby's head higher than his or her tummy, which can be helpful for babies who are more likely to spit up.

Laid-back breastfeeding. In this position, the mother is leaning back in a recliner or reclining in bed. The baby is lying on his or her stomach and is pressed against the mother's body. She can support the side of her baby's head if baby cannot hold it by him- or herself. In this position, both mother and baby can relax. She can allow her baby to explore her breast and latch on at his or her leisure. This is a great position if mother has had a cesarean delivery.

Latching.

The latch should be comfortable and pain free.

The baby's chest and stomach rest against the mother's body, so that baby's head is straight, not turned to the side.

Baby's chin touches her breast.

Baby's mouth opens wide around her breast, not just the nipple.

Baby's lips turn out.

Baby's tongue cups under her breast.

Mother hears or sees swallowing.

| S. No | Position of mother | Position of child | Attachment (latching) | Comments |
|-------|--------------------|-------------------|-----------------------|----------|
| 1 | | | | |

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|---|--|--|--|--|
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE24.15 Perform NG tube insertion in a manikin

Minimum Number required to certify-2

Demonstrate the following steps in inserting a NG tube in a manikin

| S. No | Identify size of nasogastric tube as per age of child. | Demonstrate landmarks for measurement of length of NG tube to be inserted on a manikin | Correctly measure the length of NG tube to be inserted | Insert the tube and check its position |
|-------|--|--|--|--|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE33.6 Perform and interpret urine dip stick for sugar

Minimum number required to certify- 3

Demonstrate the steps to perform and interpret the urine dip stick for sugar

| S. no | Urine sugar by dipstick | Interpretation |
|-------|-------------------------|----------------|
| 1 | | |
| 2 | | |
| 3 | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|-----------------------------|---------------------------|--|
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PE34.6 Identify a BCG scar

Minimum number required to certify- 3

Demonstrate the following steps to identify a BCG scar

| S.No | Age of the child | Size of BCG scar | Quality of the scar |
|------|------------------|------------------|---------------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE34.7 Interpret a Mantoux test

Minimum number required to certify- 3

Demonstrate the following steps to interpret a Mantoux test

| S. No | Age | Measure induration (horizontal/transverse) | Interpretation |
|-------|-----|---|----------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|-----------------------------------|-------------------|-----------------------------|---------------------------|--|
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PE34.11 Perform AFB staining
****Shared with Microbiology**

Minimum number required to certify- 3

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
|----------------|--------------------------------|----------------|-----------------------------|---------------------------|--|
| | | | | | |
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SUMMARY OF COMPETENCIES REQUIRING DOCUMENTATION
(to be observed in ward/PICU/NICU/LT)

| S. no | Competency no | Competency detail | Minimum No. to be done | Date completed | Faculty signature |
|--------------|----------------------|---|-------------------------------|-----------------------|--------------------------|
| 1 | 18.5 | Provide intra-natal care and observe the conduct of a normal delivery | 3 | | |
| 2 | 27.10 | Observe the various methods of administering Oxygen | 3 | | |
| 3 | 31.11 | Observe administration of Nebulization | 3 | | |

Competencies requiring documentation
(to be done as part of seminar, demonstration, case presentation)

| S.no | Competency no | Competency detail | Minimum No. to be done | T/L method | Date completed | Faculty signature |
|-------------|----------------------|--|-------------------------------|-------------------|-----------------------|--------------------------|
| 1 | 9.7 | Plan an appropriate diet in health and disease | 3 | | | |

| | | | | | | |
|----------|------|--|----------|--|--|--|
| 2 | 11.3 | Assessment of a child with obesity with regard to eliciting history including physical activity, charting and dietary recall | 3 | | | |
| 3 | 12.3 | Identify the clinical features of dietary deficiency /excess of Vitamin A | 3 | | | |
| 4 | 12.4 | Diagnose patients with Vitamin A deficiency (VAD), classify and plan management | 3 | | | |
| 5 | 12.8 | Identify the clinical features of dietary deficiency of Vitamin D | 3 | | | |
| 6 | 12.9 | Assess patients with Vitamin D deficiency, diagnose, classify and | 3 | | | |

| | | | | | | |
|-----------|-------|---|----------|--|--|--|
| | | plan management | | | | |
| 7 | 12.17 | Identify the clinical features of Vitamin B complex deficiency | 3 | | | |
| 8 | 12.18 | Diagnose patients with vitamin B complex deficiency and plan management | 3 | | | |
| 9 | 12.21 | Identify the clinical features of Vitamin C deficiency | 3 | | | |
| 10 | 13.3 | Identify the clinical features of dietary deficiency of Iron and make a diagnosis | 3 | | | |
| 11 | 24.12 | Perform and interpret stool examination including Hanging Drop | 2 | | | |

| | | | | | | |
|-----------|-------|--|----------|--|--|--|
| 12 | 27.31 | Assess child for signs of abuse | 2 | | | |
| 13 | 32.2 | Identify the clinical features of Down Syndrome | 3 | | | |
| 14 | 32.7 | Identify the clinical features of Turner Syndrome | 2 | | | |
| 15 | 32.12 | Identify the clinical features of Klinefelter Syndrome | 2 | | | |
| 16 | 33.10 | Recognize precocious and delayed Puberty and refer | 2 | | | |
| 17 | 20.6 | Explain the follow-up care for neonates including Breastfeeding, Temperature maintenance, immunization, importance of growth monitoring and red flags. | 3 | | | |

Competencies requiring documentation
(to be done by giving actual blood reports/case scenarios/x-rays/CT/MRI /EEG/ECG reports)

| S. no | Competency no | Competency detail | Minimum No. to be done | T/L method | Date completed | Faculty signature |
|-------|---------------|--|------------------------|------------|----------------|-------------------|
| 1 | 28.16 | Interpret blood tests relevant to upper respiratory problems | 3 | | | |
| 2 | 29.15 | Perform and Interpret peripheral smear. | 3 | | | |
| 3 | 32.3 | Interpret normal Karyotype and | 2 | | | |

| | | | | | | |
|---|-------|--|---|--|--|--|
| | | recognize Trisomy 21 | | | | |
| 4 | 32.8 | Interpret normal Karyotype and recognize Turner Karyotype | 2 | | | |
| 5 | 32.13 | Interpret normal Karyotype and recognize the Klinefelter Karyotype | 2 | | | |
| 6 | 34.9 | Interpret blood tests in the context of laboratory evidence for tuberculosis | 2 | | | |

AFFECTIVE COMPETENCIES REQUIRING DOCUMENTATION
(To be done as part of AETCOM)

| S. No | Competency no | Competency detail | Minimum No. to be done | Date completed | Faculty signature |
|-------|---------------|--|------------------------|----------------|-------------------|
| 1 | 2.3 | Counseling a parent with failing to thrive child | 3 | | |

| | | | | | |
|----------|------|---|----------|--|--|
| 2 | 3.4 | Counsel a parent of a child with developmental delay | 3 | | |
| 3 | 6.8 | Respecting patient privacy and maintaining confidentiality while dealing with adolescence | 3 | | |
| 4 | 7.8 | Educate mothers on antenatal breast care and prepare mothers for lactation | 3 | | |
| 5 | 7.9 | Educate and counsel mothers for best practices in Breastfeeding | 3 | | |
| 6 | 7.10 | Respect patient privacy | 3 | | |
| 7 | 8.5 | Counsel and educate mothers on the best practices in complementary feeding | 3 | | |
| 8 | 10.5 | Counsel parents of children with SAM and MAM | 3 | | |
| 9 | 19.7 | Educate and counsel a patient for immunization | 3 | | |

| | | | | | |
|-----------|-------|--|----------|--|--|
| 10 | 19.8 | Demonstrate willingness to participate in the national and subnational immunization days | 3 | | |
| 11 | 20.5 | Counsel/educate mothers on the care of neonates | 3 | | |
| 12 | 21.16 | Counsel / educate a patient for referral appropriately | 3 | | |
| 13 | 22.2 | Counsel a patient with Chronic illness | 3 | | |
| 14 | 23.18 | Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter | 3 | | |
| 15 | 29.19 | Counsel and educate patients about prevention and treatment of anemia. | 3 | | |
| 16 | 32.5 | Counsel parents regarding 1. Present child 2. Risk in the next pregnancy (Down syndrome) | 2 | | |
| 17 | 32.10 | Counsel parents regarding 1. Present child 2. Risk in the next pregnancy (Turner syndrome) | 2 | | |

SELF- DIRECTED LEARNING

List of Self-Directed Learning Topics

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.

SELF- DIRECTED LEARNING:

1)
Topic:

Objectives:

Task:

Impressions:

2)
Topic:

Objectives:

Task:

Impressions:

INTEGRATED LEARNING

Summary of integrated learning sessions:

| S.No | Competency No. | Topic | Departments involved | Date |
|------|----------------|-------|----------------------|------|
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REFLECTIONS:

Your thoughts about the procedures requiring certification (any 7 where you committed mistakes)

| Competency no | Competency details | Why I went wrong | Was this exercise useful | Faculty remarks |
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ELECTIVE POSTINGS (If done in Paediatrics)

| Name of block | Name of elective | Location of elective | Name of internal preceptor | Attendance | Daily rounds | Assignments | Case presentation | Remarks of the preceptor | | |
|---------------|------------------|----------------------|----------------------------|------------|--------------|-------------|-------------------|--------------------------|--|--|
| 1 | | | | | | | | | | |

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| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |

LEARNING OBJECTIVES

9. Perform IV cannulation in a simulated environment
10. Perform intraosseous insertion in a simulated environment
11. Assess airway, breathing and circulation in a sick child, give appropriate and accurate treatment
12. Choose the type of fluid and calculate the fluid requirement in shock in children
13. Assess level of consciousness & provide emergency treatment to a child with convulsions/ coma
14. Assess for signs of severe dehydration
15. Provide BLS for children in a manikin
16. Write 4 Paediatric and 1 neonatal case sheet

| S.no | Identify size of IV cannula as per age of child. | Demonstrate all steps of infection control policy like handwashing, wearing gloves, proper filling of fluid in syringe | Choose and prepare the site | Correctly insert the cannula and look for free flow of blood | Fix the cannula and properly dispose the biomedical waste |
|------|--|--|-----------------------------|--|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE24.17 Perform intraosseous insertion in a model

Minimum number required to certify-2

Perform intraosseous insertion in a model in these following steps

| S.no | Identify site for intraosseous insertion in children based on landmarks. | Demonstrate all steps of infection control | Insert the Intraosseous cannula and demonstrate how to check its proper insertion in model | Fix Intraosseous cannula and correctly demonstrate disposal of biomedical waste |
|------|--|--|--|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.15 Assess airway and breathing: recognize signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting
Minimum number required to certify- 3

Check for the following signs in a child with respiratory distress

| S.no | Respiratory rate | Intercostal retractions | Alae nasi flaring | Drowsiness | Grunt or stridor | Cyanosis |
|------|------------------|-------------------------|-------------------|------------|------------------|----------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty (C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.16 Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment

Minimum number required to certify- 3

Assess whether the student performs the steps in a correct manner

| S.no | Head tilt manoeuvre performed | Chin lift manoeuvre performed | Jaw thrust manoeuvre performed | Remarks of the facilitator |
|------|-------------------------------|-------------------------------|--------------------------------|----------------------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.17 Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate

Minimum number required to certify- 3

Demonstrate the various methods of administering oxygen and at specific rates

| S. no | Head box | Nasal cannula | High flow nasal cannula | Face mask | Non rebreathing mask | Rate of delivery of oxygen |
|-------|----------|---------------|-------------------------|-----------|----------------------|----------------------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.18 Assess airway and breathing: perform assisted ventilation by Bag and mask in a simulated environment

Minimum number required to certify- 3

Demonstrate assisted ventilation using bag and mask in a simulated environment

| S. no | Chosen the correct size mask | Chosen the correct bag | Head and neck in proper position | Used the correct pressure to inflate | Looked for chest rise | Used the correct rate of ventilation |
|-------|------------------------------|------------------------|----------------------------------|--------------------------------------|-----------------------|--------------------------------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.19 Check for signs of shock i.e., Pulse, Blood Pressure, Capillary Refill time

Minimum number required to certify- 3

Check for the signs of shock

| S. no | Check for volume of pulse | Check BP | Check for saturation | Check for CRT | Check for skin colour and temperature | Check for sensorium |
|-------|---------------------------|----------|----------------------|---------------|---------------------------------------|---------------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
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| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.21 Choose the type of fluid and calculate the fluid requirement in shock

Minimum number required to certify- 3

Choose appropriate fluid according to different types of shock. Calculate the fluid for managing different types of shock at different age/size of the child.

| S.no | Type of shock | Assess weight of child | Choose the appropriate fluid for bolus administration | Calculate the amount of fluid to be administered for bolus and continuation | Remarks |
|------|---------------|------------------------|---|---|---------|
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|---|-------------|--|--|--|--|
| 1 | Hypovolemic | | | | |
| 2 | Septic | | | | |
| 3 | Cardiogenic | | | | |
| 4 | Obstructive | | | | |
| 5 | Burns | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.22 Assess level of consciousness & provide emergency treatment to a child with convulsions/ coma

Minimum number required to certify- 3

| S. no | Assess level of consciousness (Glasgow or AVPU) | Position a child in coma correctly | Position a child with head/spine trauma correctly | Assess ABCD | Demonstrate how to give rectal diazepam | Calculate how much IV diazepam and give it correctly in a manikin | Administer nasal midazolam spray |
|-------|---|------------------------------------|---|-------------|---|---|----------------------------------|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.23 Assess for signs of severe dehydration

Minimum number required to certify- 3

| S.no | Thirst | Urine output | Sensorium | Mucus membrane | Skin turgor | Pulse | Blood pressure | AF if open |
|------|--------|--------------|-----------|----------------|-------------|-------|----------------|------------|
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| 2 | | | | | | | | |
| 3 | | | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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PE27.28 Provide BLS for children in manikin

Minimum number required to certify- 3

Either a certificate that they have attended a formal BLS course or a modified BLS session has to be attached

| S.No | Check for response | Call for help | Check pulse and breathing simultaneously | Start chest compression | Make airway patent and give 2 rescue breaths | Repeat above CPR |
|------|--------------------|---------------|--|-------------------------|--|------------------|
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| 2 | | | | | | |
| 3 | | | | | | |

| Date Completed | Attempt at Competency (F/R/Re) | Rating (B/M/E) | Decision of Faculty(C/R/Re) | Initial of Faculty & Date | Feedback Received Initial of Learner with Date |
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SUMMARY OF COMPETENCIES REQUIRING DOCUMENTATION
(to be done as part of seminar, demonstration, case presentation)

| S.no | Competency no | Competency detail | Minimum No. to be done | T/L method | Date completed | Faculty signature |
|------|---------------|--|------------------------|------------|----------------|-------------------|
| 1 | 21.9 | Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Ichthyosis, anasarca | 3 | | | |
| 2 | 21.10 | Analyze symptom and interpret the physical findings and arrive at an appropriate | 3 | | | |

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|---|-------|---|---|--|--|--|
| | | provisional differential diagnosis | | | | |
| 3 | 21.14 | 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, Phimosi s, undescended testis, Chordee, hypospadias, Torsion testis, hernia Hydrocele, Vulval Synechiae | 3 | | | |
| 4 | 21.16 | Counsel / educate a patient for referral appropriately | 3 | | | |

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|---|-------|---|---|--|--|--|
| 5 | 23.11 | Develop a treatment plan and prescribe appropriate drugs including fluids in cardiac diseases, anti - failure drugs, and inotropic agents | 3 | | | |
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Competencies requiring documentation

(To be done as part of IMNCI assessment)

| S. no | Competency no | Competency detail | Minimum No.to be done | Date completed | Faculty signature |
|-------|---------------|--|-----------------------|----------------|-------------------|
| 1 | 10.4 | Identify children with under nutrition as per IMNCI criteria and plan referral | 3 | | |
| 2 | 16.2 | Assess children <2 months using IMNCI guidelines | 3 | | |
| 3 | 16.3 | Assess children >2 months to 5 years using IMNCI guidelines and stratify risk | 3 | | |

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|----------|-------|---|----------|--|--|
| 4 | 20.18 | Identify and stratify risk in a sick neonate using IMNCI guidelines | 3 | | |
| 5 | 24.11 | Apply the IMNCI guidelines in risk stratification of children with diarrhoeal dehydration and refer | 3 | | |
| 6 | 28.15 | Stratify risk in children with stridor using IMNCI guidelines | 3 | | |

Competencies requiring documentation

(to be done in a simulated environment)

| S. no | Competency no | Competency detail | Minimum No. to be done | Date completed | Faculty signature |
|--------------|----------------------|---|-------------------------------|-----------------------|--------------------------|
| 1 | 18.4 | Provide intra-natal care and conduct a normal delivery in a simulated environment | 3 | | |
| 2 | 19.13 | Demonstrate the correct administration of different vaccines in a mannequin | 3 | | |

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|----------|-------|---|----------|--|--|
| 3 | 20.3 | Perform Neonatal resuscitation in a manikin | 3 | | |
| 4 | 26.10 | Demonstrate the technique of liver biopsy in a manikin Perform Liver Biopsy in a simulated environment | 2 | | |
| 5 | 29.17 | Demonstrate performance of bone marrow aspiration in mannequin. | 2 | | |

Competencies requiring documentation
(to be done by giving actual blood reports/case scenarios/x-rays/CT/MRI/ EEG/ECG reports)

| S. no | Competency no | Competency detail | Minimum No. to be done | T/L method | Date completed | Faculty signature |
|--------------|----------------------|---|-------------------------------|-------------------|-----------------------|--------------------------|
| 1 | 21.12 | Interpret report of Plain X Ray of KUB | 3 | | | |
| 2 | 21.13 | Enumerate the indications for and Interpret the written report of Ultra | 3 | | | |

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|-----------|-------|--|----------|--|--|--|
| | | sonogram of KUB | | | | |
| 3 | 23.12 | Interpret a chest X ray and recognize Cardiomegaly | 3 | | | |
| 4 | 23.13 | Choose and Interpret blood reports in Cardiac illness | 3 | | | |
| 5 | 23.14 | Interpret Pediatric ECG | 3 | | | |
| 6 | 23.15 | Use the ECHO reports in management of cases | 3 | | | |
| 7 | 24.13 | Interpret RFT and electrolyte report | 3 | | | |
| 8 | 30.20 | Interpret and explain the findings in a CSF analysis | 3 | | | |
| 9 | 30.21 | Enumerate the indication and discuss the limitations of EEG, CT, MRI | 3 | | | |
| 10 | 30.22 | Interpret the reports of EEG, CT, MRI | 3 | | | |
| 11 | 34.9 | Interpret blood tests in the context of laboratory | 3 | | | |

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| | | evidence for tuberculosis | | | | |
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AFFECTIVE COMPETENCIES REQUIRING DOCUMENTATION
(To be done as part of AETCOM)

| S. no | Competency no | Competency detail | Minimum No. to be done | Date completed | Faculty signature |
|-------|---------------|--|------------------------|----------------|-------------------|
| 1 | 23.18 | Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter | 3 | | |
| 2 | 26.13 | Counsel and educate patients and their family appropriately on liver diseases | 3 | | |
| 3 | 27.32 | Counsel parents of dangerously ill/ terminally ill child to break a bad news | 2 | | |

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|----------|-------|-------------------------------------|----------|--|--|
| 4 | 27.33 | Obtain Informed Consent | 2 | | |
| 5 | 27.34 | Willing to be a part of the ER team | 3 | | |
| 6 | 27.35 | Attends to emergency calls promptly | 3 | | |

SELF-DIRECTED LEARNING

List of Self-Directed Learning Topics

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
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- 15.

SELF-DIRECTED LEARNING:

1)
Topic:

Objectives:

Task:

Impressions:

2)
Topic:

Objectives:

Task:

Impressions:

INTEGRATED LEARNING

Summary of integrated learning sessions

| S.No | Competency No | Topic | Departments involved | Date |
|------|---------------|-------|----------------------|------|
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REFLECTIONS:

Your thoughts about the procedures requiring certification (any 7 where you committed mistakes)

| Competency no | Competency details | Why I went wrong | Was this exercise useful | Faculty remarks |
|---------------|--------------------|------------------|--------------------------|-----------------|
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- Other activities :
- 5. Participation in departmental activities- children’s day, breast feeding week, ORS week, disease specific days (if being celebrated)
 - 6. STS/ college grant project submitted
 - 7. Participation in IAP quiz competition
 - 8. Participation in any research projects/student conference

CLINIC/FIELD VISITS

| S. no | Visit to | Competency no | Competency | Year/Phase | Date completed | Report submitted | Faculty signature |
|-------|------------------------|---------------|--|------------|----------------|------------------|-------------------|
| 1 | Child development unit | 3.7 | Visit a Child Developmental Unit and Observe its functioning Topic: Developmental delay and cerebral palsy | | | | |
| 2 | Child guidance clinic | 4.6 | Visit to the Child guidance clinic Topic: Scholastic backwardness, learning disabilities, Autism, ADHD | | | | |
| | | 5.11 | Visit to Child guidance clinic | | | | |

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| | | | and observe functioning Topic: Common problems related to behaviour | | | | |
| 3 | Adolescent clinic | 6.11 | Visit to the Adolescent clinic | | | | |
| 4 | Rural health centre | 18.8 | Observe the implementation of the program by visiting the Rural Health Center | | | | |
| 5 | Immunization clinic | 19.10 | Observe the handling and storing of vaccines | | | | |
| | | 19.11 | Document Immunization in an immunization record | | | | |
| | | 19.12 | Observe the administration of UIP vaccines | | | | |
| | | 19.14 | Practice Infection control measures and appropriate | | | | |

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| | | | handling of the sharps | | | | |
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NOTES

NOTES

Acknowledging the Contributors to the development of Curriculum of 3rd MBBS Part 2

| Subject | Contributors |
|---|--|
| Internal Medicine with respiratory medicine | Dr Smitha Bhat, Dr Soumya Umesh, Dr Savitha Sebastian, Dr Mary George, Dr Thenmozhi Nagarajan and Dr John Paul - St John's Medical College, Bangalore Dr Uma Devraj – Pulmonary Medicine , St John's Medical College, Bangalore |
| Psychiatry | This curriculum was adapted from the draft document prepared by the Indian Psychiatry Society UG education subcommittee 2021-2022: Chairperson: Dr Ravi Gupta, Co-chairperson: Dr Vinay H R, Convenor: Dr Priya Sreedaran, Advisor: Dr Anil Nischal and EC Co-ordinator: Dr Adarsh Tripathi Dr Priya Sreedharan, Dr Luke Salazar and Dr Bhuvaneshvari Sethumaran, St John's Medical College, Bangalore |
| Dermatology | Dr Shashi Kumar BM and Dr Deepadarshan K, - Mandya Institute of Medical Sciences. |
| General Surgery | Dr Mallikarjuna, Bangalore Medical College and Research institute, Bangalore Dr Mario Victor Newton, St John's Medical College, Bangalore Dr Prathvi Shetty, Fr Muller's Medical College, Mangalore Dr Sunil Kumar V, Bangalore Medical College and Research institute, Bangalore Dr Suneetha Nithyanandam, Medical Education, St John's Medical College, Bangalore |
| Anaesthesiology | Dr Shailaja S- Fr Muller's Medical College, Mangalore |
| Radiology | Dr Rajesh Iyer, Mandya Institute of Medical Sciences, |

| | |
|-------------------------------|---|
| Orthopaedics | <p>Dr. Hiranya Kumar S- Vydehi Institute of Medical sciences Bengaluru</p> <p>Dr. Purushotham Shastry – JSS Medical College, Mysuru</p> <p>Dr. Mallikarjun Swamy B – St John’s Medical College, Bangalore</p> <p>Dr. Ramesh R – JJM Medical College</p> <p>Dr. Arun H.S- Devaraj Urs Medical College, Kolar</p> <p>Dr. Ashok Kumar P – Ms Ramaiah Medical College, Bangalore</p> <p>Dr. Ravish V N – Bangalore Medical College and Research Institute</p> <p>Dr. Vanamali B.S- Vijaynagar Institute of Medical Sciences, Bellary</p> <p>Dr. E Venkateshulu – S Nijalingappa Medical College, Bagalkot</p> <p>Dr. Siddanna M Patted - Vydehi Institute of Medical Sciences Bengaluru</p> <p>Dr. Vamshikrishna Chand N - S Nijalingappa Medical College, Bagalkot</p> |
| Obstetrics and Gynaecology | <p>Dr Jayshree. V. Kanavi, St John’s Medical College, Bangalore</p> <p>Dr Girija Prasanna, Hassan Institute of Medical Sciences, Hassan</p> <p>Dr Rekha Gurumurthy, Shridevi Institute of Medical Sciences & Research Hospital, Tumkuru</p> <p>Dr Madhava Prasad Sarvothaman, Vydehi Institute of Medical Sciences and Research Centre, Bangalore</p> <p>Dr Narayani, Koppal Institute of Medical Sciences, Koppal</p> <p>Dr Suneetha Nithyanandam, Medical Education, St John’s Medical College, Bangalore</p> |
| Paediatrics | <p>IAP task force CBME curriculum for Paediatrics</p> <p>SSAH CBME curriculum for RS 4 Batch</p> <p>NMC Document - Regulations on Graduate Medical Education</p> <p>Dr. K. Shreedhara Avabratha, Dr K Varadaraj Shenoy, Dr Riya Tharakan, Dr Sujonitha John and Dr Sweta Shanbhag. Father Muller Medical College Hospital, Mangalore</p> |