BLDE
(DEEMED TO BE UNIVERSITY)

Competency Based Medical Education (CBME)

Revised Curriculum

MBBS

Phase-III, Part I & Part II

2024-25

Published by

BLDE

(DEEMED TO BE UNIVERSITY)

Declared as Deemed to be University u/s 3 of UGC Act, 1956

The Constituent College

SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, VIJAYAPURA

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Vision

To be a leader in providing quality medical education, healthcare & to becomean Institution of eminence involved in multidisciplinary and translational research, the outcome of which can impact the health & the quality of life ofpeople of this region.

Mission

- To be committed to promoting sustainable development of higher education, including health science education consistent with statutory and regulatory requirements.
- To reflect the needs of changing technology.
- Make use of academic autonomy to identify dynamic educational programs.
- To adopt the global concepts of education in the healthcare sector

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(DEEMED TO BE UNIVERSITY)
Declared as Deemed to be University u/s 3 of UGC Act, 1956
Accredited 'A' Grade by NAAC (Cycle-2)

BLDE(DU)/REG/UG Curri./2025-26/ 3820 October 14, 2025

NOTIFICATION

Sub: Implementation of CBME Guidelines 2024 to MBBS Phase-III (Part-I & Part-II) Curriculum.

Ref: 1. NMC New CBME Guidelines 2024 vide no. D-11011/500/2024-AC(e-8284443) dtd. 12.09.2024.
2. BLDE(DU)/REG/UG Curri./2024-25/2785 dtd. 13.12.2024
3. BLDE(DU)/REG/UG Curri./2025-26/1064 dtd. 21.05.2025
4. Approval of Hon'ble Vice-Chancellor vide no. 1574 dtd. 13.10.2025.

NMC has notified Competency Based Medical Education Curriculum (CBMEG) Guidelines 2024 on 12.09.2024 (Reference 1) for the students freshly enrolled in the Academic Year 2024-25. Accordingly, BLDE(DU) adopted & notified the guidelines for implementation on 12.09.2024.

The detailed Curricula of Phase-I (Notification vide no. BLDE(DU)/REG/UG Curri./2024-25/2785 dtd. 13.12.2024) and Phase-II (Notification vide no. BLDE(DU)/REG/UG Curri./2025-26/1064 dtd. 21.05.2025) (Reference 2 & 3) were accepted by the University and notified for implementation accordingly, the same was implemented.

In continuation, the detailed Curricula of MBBS Phase III (Part-I & Part-II) is hereby notified for implementation.

This is applicable to the Batch of students freshly enrolled during the academic year 2024-25.

REGISTRAR
REGISTRAR
BLDE(Deemed to be University)
Vijayapura-586103. Karnataka

Copy to:
- The Secretary, NMC, New Delhi
- The Secretary, UGC, New Delhi
- The Controller of Examinations
- The Principal, SBMPMCH&RC
- The Dean, Faculty of Medicine
- The Dean, Student Affairs
- The HoD of Concerned Departments
- The Coordinator, Medical Education Unit
- All the Concerned Officials
- The Co-ordinator/ Director, IQAC

Copy respectfully submitted to:
- The Hon'ble Pro-Chancellor
- The Hon'ble Vice-Chancellor

Introduction

The Competency Based Medical Education Curriculum for M.B.B.S course of the National Medical Commission came into effect from 2019 and it has undergone amendments thereof. The BLDE Deemed to be University has implemented the new regulations for the batches of students admitted to the M.B.B.S course from the academic year 2019 and onwards. Later the curriculum was revised in 2023 and revised guidelines were announced 2024. This will be implemented for the batches of students admitted to the M.B.B.S Course from the academic year 2024 onwards. The broad goals, objectives and implementation follows the CBME 2024 Regulations published vide No. No.D-11011/500/2024/AC "REVISED CBME Curriculum Guidelines 2024" applicable to students joining MBBS in 2024 onwards.

SECTION – I

This section contains the goals and general objectives of graduate medical education as stated in NMC Regulations.

Competencies for the Indian Medical Graduate

This content is cited from "Competency Based Medical Education Curriculum (CBME) Regulations, 2024-National Medical Commission".

Section 1 provides the global competencies extracted from the Graduate Medical Education Regulations, 2023. The global competencies identified as defining the roles of the **Indian Medical Graduate** are the broad competencies that the learner has to aspire to achieve; teachers and curriculum planners must ensure that the learning experiences are aligned to this Manual.

Extract from the Graduate Medical Education Regulations, 2024. Objectives of the Indian Graduate Medical Training Programme

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

1. **National Goals**

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

a. Recognize "health for all as a national goal and health right of all citizens and by undergoing training for medical profession fulfill his social obligations towards realization of this goal
b. Learn key aspects of National policies on health and devote himself to its practical
c. Achieve competence in practice of holistic medicine, encompassing promotive, preventive, curative and rehabilitative aspects of common diseases.
d. Develop scientific temper, acquire educational experience for proficiency in profession and promote healthy living.
e. Become exemplary citizen by observance of medical ethics and fulfilling social and professional obligations, so as to respond to national aspirations.

2. **Institutional Goals**

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

a. Be competent in diagnosis and management of common health problems of the individual and the community, commensurate with his/her position as a member of the health team at the primary, secondary or tertiary levels, using his/her clinical skills based on history, physical examination and relevant investigations.
b. Be competent to practice preventive, promotive, curative, 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 the "essential drugs" and their common side effects.
d. Appreciate the socio-psychological, cultural, economic and environmental factors affecting health and develop humane attitude towards the patients in discharging one's professional responsibilities.
e. Possess the attitude for continued self-learning and to seek further expertise or to pursue research in any chosen area of medicine, action research and documentation skills.
f. Be familiar with the basic factors which are essential for the implementation of the National Health Programs including practical aspects of the following:
    i. Family Welfare and Maternal and Child Health (MCH);

ii. Sanitation and water supply;
iii. Prevention and control of communicable and non-communicable diseases;
iv. Immunization;
v. Health Education and advocacy;
vi. Indian Public Health Standards (IPHS) at various level 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, general and hospital management, principle 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 with maximum community participation.
i. Be able to work as a leading partner in health care teams and acquire proficiency in communication skills.
j. Be competent to work in a variety of health care settings.
k. Have personal characteristics and attitudes required for professional life including personal integrity, sense of responsibility and dependability and ability to relate to or show concern for other individuals.

3. Goals for the Learner

In order to fulfill these goals, the Indian Medical Graduate must be able to function in the following roles appropriately and effectively:

a. Clinician who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.
b. Leader and member of the health care team and system with capabilities to collect, analyze, synthesize and communicate health data appropriately.
c. Communicator with patients, families, colleagues and community.
d. 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.
e. Critical thinker who demonstrates problem solving skills in professional practice.
f. Researcher who generates and interprets evidence.

4. **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 fulfill the roles, 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, behavioral and social perspective.
- Demonstrate knowledge of abnormal human structure, function and development from a molecular, cellular, biological, clinical, behavioral and social perspective.
- Demonstrate knowledge of medico-legal, societal, ethical and humanitarian principle that influence healthcare.
- 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 frameworks.

- 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 programmers and policies for the following:
    i. Disease prevention,
    ii. Health promotion and cure,
    iii. Pain and distress alleviation, and
    iv. Rehabilitation and palliation.
- Demonstrate ability to provide a continuum of care at the primary (including home care) 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) cancer, 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 re-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 awhile.

Critical Thinker who demonstrates problem solving skills in professional practice

- Perceive, analyze, synthesize and evaluate information obtained through observation, experience and communication that leads to rational clinical decision.
- Evaluate the credibility of information resources.
- Adequately consider the social, cultural and geographical diversity while practicing personalized medicine
- Develop independence of thought, clarity, integrity and self- confidence in decision making.

Researcher who generates and interprets evidence to ensure effective patient care as well as contribute in the field of medical research and practice.

- Read, review, appraise and critique the scientific body of literature for practice of Evidence Based Medicine.
- Apply methodological approach to scientific enquiry for generating evidence.
- Demonstrate basic principles and ethical implications of research governance.

SECTION - II

REGULATIONS GOVERNING M.B.B.S. DEGREE COURSE

(Eligibility for Admission, Duration, Attendance and Scheme of Examination as per the norms laid down in the Regulations on Graduate Medical Education 2023 of National Medical Commission of India and the amendments thereof for admission to UG course - MBBS)

ELIGIBILITY

Eligibility criteria for admission to the MBBS Course shall be as per Graduate Medical Education regulations of National Medical Commission 2024 and its amendments thereof existing at the time of admission.

1. Training period and time distribution:

University shall organize admission timing and admission process in such a way that teaching in the first Professional year commences with induction through the Foundation Course by the Ist day of notified date by NMC of each year for the specified academic year. There shall be no admission of students in respect of any academic session beyond the last date notified by the NMC. The Universities shall not register any student admitted beyond the said date.

Every learner shall undergo a period of certified study extending over 41/2 years academic years, divided into four professional years 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 39 teaching weeks with a minimum of eight hours of working on each day including one hour as lunch break.

Didactic lectures shall not exceed one third of the schedule; two third of the schedule shall include interactive sessions, practical's, clinical or/and group discussions. The learning process should include clinical experiences, problem- oriented approach, case studies and community health care activities.

Teaching and learning shall be aligned and integrated across specialties both vertically and horizontally for better learner comprehension. Learner centered learning methods should

include Early Clinical Exposure, problem-oriented learning, case studies, community- oriented learning, self- directed, experiential learning & Electives.

Supplementary examinations and declaration of results shall be processed by universities within 6-8 weeks from the date of declaration of the results of the main examination for every professional year, so that the candidates, who pass, can join the main batch for progression.

If the student fails in the supplementary examination in phase 1 of MBBS, the student goes to the junior batch for teaching learning as well as for university examinations. There shall be no supplementary batches. If a candidate has not appeared for university examination (both theory and practical) for a subject then it shall not be counted as an attempt for that subject. Partial attendance in examination (only theory or only practical) in any subject shall be counted as an attempt. No more than four attempts shall be allowed for a candidate to pass the Phase 1 examination. The total period for successful completion of phase I course shall not exceed four (4) years. A learner shall not be entitled to graduate later than ten (10) years of her/his joining the first MBBS course (including continuous rotatory medical internship).

Phase wise details are:

- A candidate, who fails in the Phase-I examination, shall not be allowed to join the Phase- II until the candidate passes all subjects of Phase-I examination.
- A candidate who fails in the Phase-II regular/ supplementary university examination, shall be allowed to join the Phase-III Part I training, however he shall not be allowed appear for the university examination.
- A candidate who fails in the Phase III, Part-I regular/supplementary university examination, shall be allowed to join the Phase-III Part II training, however he shall not be allowed appear for the university examination.

2. The period of 4 1/2 years is divided as follows:

i. Phase-I of 12 months including Foundation Course of two weeks and university exams. It shall consist of - Anatomy, Physiology, Biochemistry.
Introduction to Community Medicine, Humanities, Attitude, Ethics & Communication (AETCOM) module, family adoption programme through village outreach where-in each student shall adopt minimum of three (03) families and

preferably at least five (05) families, simulation-based learning, early clinical exposure, alignment & integration and pandemic module integrated.

ii. Phase-II of 12 months including university exams. It will consist of Pathology, Pharmacology, Microbiology, family visit under Community Medicine, General Surgery, General Medicine, Obstetrics & Gynecology, AETCOM module, Forensic Medicine & Toxicology, alignment & integration and introduction to clinical subjects. Family Adoption Programme through village outreach where-in each student shall continue to follow up and provide necessary services under the supervision. Pandemic module integration & simulation-based learning to be continued with increasing complexity.

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 shall 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:

Experience in recognizing and managing common problems seen in outpatient, inpatient and emergency settings,

- Involvement in patient care as a team member,
- Involvement in patient management and performance of basic procedures.

iii. Phase III - 30 months

a) Phase III Part I (12 months, including University exams)

Forensic Medicine and Toxicology, Community Medicine, Medicine & allied subjects, Ophthalmology, Otorhinolaryngology (ENT), Surgery & allied subjects, Pediatrics, Obstetrics& Gynecology, Radio diagnosis, Anesthesiology, AETCOM, Pandemic module integration, alignment & integration and Clinical postings. Family Adoption Programme through village outreach and simulation- based learning to be continued with increasing complexity.

Electives (1 month) shall be in 2 blocks of 15 days each in Phase III part II. First 15days block starts after annual exam of Phase III MBBS part 1 and 2nd block after the end of 1st elective.

b) Phase 3 Part II (18 months, including University exam)- Subjects include: Medicine and allied specialties (General Medicine, Psychiatry, Dermatology, Venereology and Leprosy (DVL), Surgery and allied specialties (General Surgery, Orthopedics, Anesthesiology and Radio diagnosis), Obstetrics and Gynecology (including Family Welfare), Pediatrics, AETCOM module, Pandemic module integration, alignment & integration and Clinical postings.

Table 1:

Academic calendar for admission batch 2024-2025												
	JAN	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Adm. year										1 14 Oct	2	3
Phase 1 exam	4	5	6	7	8	9	10	11	12 Phase 1 exam, result	13 Phase 2 starts	14	15
Phase 2 exam	16	17	18	19	20	21	22	23	24 Phase 2 exam, result	25 Phase 3 Part 1 starts	26	27
Phase 3 part I exam	28	29	30	31	32	33	34	35	36 Phase 3 Part 1 exam, result	37 Phase 3 Part 2 starts	38	39
	40	41	42	43	44	45	46	47	48	49	50	51
Phase 3 part II exam	52	53	54 Proposed NEXT step1	1 CRMI	2	3	4	5	6	7	8	9
Internship	10	11	12 Proposed NEXT Step 2									

Legends:
AETCOM: Attitude, Ethics and communication skills
FAP: Family Adoption Program (village outreach)
SDL: Self Directed Learning
SGL: Small Group Learning (tutorials/Seminars/Integrated learning)
PCT (mentioned in Assessments): Part Completion Test

3. Distribution of teaching hours phase wise:

a. Phase I, phase II and phase III- part 1 teaching hours: Time allotted 12 months (approximately 52 weeks) out of which time available for teaching- learning: approximately 39 weeks. (Excluded- 13 weeks: Preliminary/ University examinations and results: 9 weeks, vacations: 2 weeks, public holidays: 2 weeks) Time distribution in weeks: 39 weeks x 39 hours = 1521 hours for Teaching- Learning.

b. Phase-III Part-II, teaching hours: Time allotted: 18 months (approx. 78 weeks) Time available: Approx. 62 weeks (excluding 16 weeks) (39 hours/ week) Prelim / University Exam & Results: 10 weeks' Vacation: 3 weeks Public Holidays: 3 weeks' Time distribution in weeks: 62 x 39 hrs = 2418 hrs available for Teaching- Learning (Clinical Postings: 15 hours/ week Phase II onwards included in academic schedule. These are attached in separate annexures/tables:

- Academic calendar is given in table 1
- Distribution of subjects for Professional Phase-wise training is given in table 2
- Minimum teaching hours prescribed in various disciplines phase wise is given in table 3, 4 5 and 6 respectively.
- Distribution and duration of clinical postings is given in table no 7 with all relevant details.

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

Phase II clinical postings shall commence before / after declaration of results of the first professional phase examinations, as decided by the institution/ University.

Phase III part I and part II clinical postings shall start no later than two weeks after the completion of the previous professional examination.

Note:

A total of approximately 20% of allotted time of a Phase shall be utilized for integrated teaching learning with other subjects. This will be included in the assessment of subjects.

The period of training is minimum suggested. Adjustments where required depending on availability of time may be made by the concerned college/ institution. This period of training does not include university examination period. Pandemic module teaching hours are added to respective allocated subjects and these subjects will teach as per module.

An exposure to skills lab based teaching by each subject in each phase shall be there weekly or fortnightly.

Table 2: Distribution of subjects in each Professional Phase

Phase & year of MBBS Training	Subjects & Teaching Elements	Duration in (months)	University Examination
Phase-1	1. Foundation course of 2 weeks at start of course 2. Anatomy, Physiology &Biochemistry, Introduction to Community Medicine, including Family adoption programme (FAP) through village outreach 3. Early Clinical Exposure 4. Attitude, Ethics, and communication Module (AETCOM) including Humanities	12 months	Phase 1
Phase-2	1. Pathology, Microbiology, Pharmacology 2. Community Medicine (including FAP) 3. Forensic Medicine and Toxicology 4. Introduction to clinical subjects 5. Clinical postings, Family visits for FAP 6. AETCOM	12 months	Phase 2
Phase- 3, Part-I	1. Community Medicine, Forensic Medicine and Toxicology, Medicine & allied, Surgery & allied, Pediatrics, Obstetrics & Gynecology 2. Family visits for FAP 3. Otorhinolaryngology, 4. Ophthalmology 5. Clinical postings 6. AETCOM	12 months	Phase 3, Part 1
Electives	2 blocks, 15 days each (after the annual exams are over, irrespective of result outcome)	1 month	Phase 3, Part II
Phase-3, Part-II, MBBS	1. General Medicine, Dermatology, Psychiatry, Pediatrics, General Surgery, Orthopedics, Radio diagnosis, Anesthesiology, Obstetrics & Gynecology 2. Clinical postings 3. AETCOM	18 months (including electives)	Phase 3, Part II

Table No. 3 Distribution of subject Wise Teaching Hours for 1st MBBS

Subject	Large group teaching	SGT/ Practical/ Tutorials/ Seminars	SDL	Total
Foundation Course				80
Anatomy	180	430	10	620
Physiology	130	305	10	45
Biochemistry *	82	157	10	249
Early Clinical Exposure (ECE)**	-	27	-	27
Community Medicine	20	20	-	40
Family adoption Program (FAP)	-	24	-	24
(AETCOM)***	-	26	-	26
Sports and extra-curricular Activities	-	-	-	10
Total	**412**	**989**	**30**	**1521**

- Including Molecular Biology
- Early Clinical exposure hours to be divided equally in all three subjects.
- AETCOM module shall be a longitudinal programme.
- Includes hours for foundation course also

Table No. 4 Distribution of subject Wise Teaching Hours for II MBBS

Subjects	Large group teaching	SGT/Practical's/ Tutorials/ Seminars	Clinical Postings*	SDL	Total
Pathology	80	170	-	10	260
Pharmacology	80	170	-	10	260
Microbiology	75	143	-	10	228
Community Medicine (including FAP)	25	0	24	10	59
Forensic Medicine and Toxicology	12	25	-	08	45
Clinical Subjects	60		540	-	600
AETCOM	-	29	-	8	37
Sports, Yoga extra-Curricular Activities	-	-	-	32	32
Final total	**332**	**537**	**564**	**88**	**1521**

Pl. Note: Clinical postings shall be for 3 hours per day, Monday to Friday.There will be 15 hours per week for all clinical postings.

Table No. 5 Distribution of subject Wise Teaching Hours for Final [III] MBBS Part-1

Subject	Large group teaching	SGT/Practical's/ Tutorials/Seminars	SDL	Total
Electives	0	156	0	156
Gen. Medicine	20	30	10	60
Gen Surgery	20	30	10	60
Obstetrics & Gynecology	20	30	10	60
Pediatrics	20	30	05	55
*Forensic Medicine and Toxicology	35	65*	20*	120
Community Med	50	80	20	150
FAP (Visits +log book submission)	-	26	10	36
Otorhinolaryngology (ENT)	30	50	20	100
Ophthalmology	30	50	20	100
Clinical posting*				593
AETCOM	0	19	12	31
Total	**225**	**566**	**137**	**1521**

Table No. 6 Distribution of Subject Wise Teaching Hours for Third [III] Professional Part-2/ Final MBBS

Subjects	Lectures	SGL	SDL	Total
General Medicine	110	185	40	335
General Surgery	90	153	30	273
Obstetrics and Gynecology	80	150	30	260
Pediatrics	20	35	10	65
Orthopedics	30	50	20	100
AETCOM	30	0	22	52
Dermatology, Venereology & Leprosy	13	17	10	40
Psychiatry	13	17	10	40
Radio-diagnosis	8	10	8	26
Anesthesiology	8	10	8	26
Clinical postings*				1201
TOTAL	**402**	**627**	**188**	**2418**

Extra hours may be used for preparation of Next or SDL.

Time allotted excludes time reserved for internal /University examinations, and vacation. Second professional clinical postings shall commence before or after declaration of results of the first professional phase examinations, as decided by the institution/ University.

Third Professional parts I and part II clinical postings shall start no later than two weeks after the completion of the previous professional examination. A total of 25% of allotted time of third Professional shall be utilized for integrated learning with phase I and II subjects. This will be included in the assessment of clinical subjects.

At least 3 hours of clinical instruction each week must be allotted to training in clinical and procedural skill laboratories hours may be distributed weekly or as a block in each posting based on institutional logistics

Distribution and duration of clinical postings throughout the course:

Table No. 7: Clinical Posting Schedule in weeks

Subjects	Period of training in weeks			Total Weeks
	Phase 2	Phase 3, Part 1	Phase 3, Part 2	
Electives	0	4	0	4
General Medicine	8	3	13	24
General Surgery	6	5	13	24
Obstetrics & Gynecology	6	3	13	22
Pediatrics	4	2	6	12
Community Medicine	4	4	0	8
Orthopaedics	0	2	6	8
Otorhinolaryngology	4	4	0	8
Ophthalmology	4	4	0	8
Psychiatry	0	2	4	6
Radio-diagnosis	0	0	2	2
Dermatology, Venereology & Leprosy	0	0	6	6
Anaesthesiology	0	0	2	2
Total	**36**	**33**	**65**	**134**

The period of training is minimum suggested. Adjustments wherever required depending on availability of time may be made by the concerned college/ institution. This period of training does not include university examination period.

An exposure to skills lab/introductory training for at least two (02) weeks prior to clinical postings shall be made available to all students.

a. **New Teaching /Learning Elements:**
   (Refer to booklets on NMC website related to these elements)

1. **Foundation Course**

Goal: The goal of the Foundation Course is to prepare a learner to study medicine effectively.

Objectives:

a) Orient the learner to:
   a) The medical profession and the physician's role in society
   b) The MBBS programme
   c) Alternate health systems i.e. AYUSH in India and history of Medicine, Medical ethics, attitudes and professionalism
   d) Health care system and its delivery
   e) National health programmes and policies
   f) Universal precautions and vaccinations
   g) Patient safety and biohazard safety
   h) Principles of primary care (general and community-based care)
   i) The academic ambience

b) Enable the learner to acquire enhanced skills in:
   - Language
   - Interpersonal relationships
   - Communication
   - Learning including self-directed learning
   - Time management
   - Stress management
   - Use of information technology, and artificial intelligence

c) Train the learner to provide:
   - First-aid
   - Basic life support

d) In addition to the above, learners may be enrolled in one of the following programmes which will be run concurrently:
   - Local language programme
   - English language programme
   - Computer skills

These may be done in the last two hours of the day. These sessions must be as interactive as possible.

Sports: (to be used through the Foundation Course as protected 04 hours/week).
Leisure and extracurricular activity: (to be used through the Foundation Course as protected 2 hours per week).

Institutions shall develop learning modules and identify the appropriate resource persons for their delivery. The foundation course schedule shall be planned with resource persons including all learning modules and sessions well in advance and implemented appropriately.

The time committed to the Foundation Course may not be used for any other curricular activity.

The Foundation Course shall have a minimum of 75% attendance for all students mandatorily. This will be certified by the Dean/Principal of the college. The Foundation Course shall be organized by the coordinator appointed by the Dean/Principal of the college and shall be under supervision of the Heads of MBBS phase I departments.

The college shall arrange for a meeting with parents/ wards of all students and records of the same shall be made available to UGMEB of NMC.

Every college shall arrange for a meeting with parents/ wards of all students and records of the same shall be made available to UGMEB of NMC. Mentor- mentee program shall be carried out judiciously, with the ratio of 1 Mentor to 3 mentees. Mentor may be selected from all disciplines from the level of Professor/ HOD to Assistant Professor. Mentor shall be allotted his mentees during the foundation on course itself from Phase 1. The mentee shall stay connected with the Mentor throughout his career till he completes CRMI. Each year when 3 new mentees are added from phase to the mentor, the senior batch students shall support the junior students and create a healthy sibling environment.

Details of the Foundation Course

Foundation Course

(One week initially and later spread over 6 months at the discretion of College)

Subjects/Contents	Teaching hours
Orientation Module including History of Indian Medicine	15
Skills Module	15
Community orientation module	5
Professional Development and Ethics Module (P&E) including Mental health	20
Enhancement of Language and Computer Skills Module including Clinico-laboratory communication	10
Sports and Extracurricular Activities	15
Total	**80**

Early Clinical Exposure

Objectives: The objectives of early clinical exposure of the first-year medical learners are to enable the learner to:

- Recognize the relevance of basic sciences in diagnosis, patient care andmanagement,
- Provide a context that will enhance basic science learning,
- Relate to experience of patients as a motivation to learn
- Recognize attitude, ethics and professionalism as integral to doctor-Patientrelationship,
- Understand the socio-cultural context of disease through the study of humanities.
- Elements
- Basic science correlation: i.e. apply and correlate principles of basic sciences as they relate to patient care (this shall be part of integrated modules).
- Clinical skills: to include basic skills in interviewing patients, doctor-patient communication, ethics and professionalism, critical thinking and analysis and self-directed learning (this training shall be imparted in the time allotted for early clinical exposure).
- Humanities: To introduce learners to a broader understanding of the socio-economic framework and cultural context within which health is delivered through the study of humanities and social sciences.

Electives

Objectives: To provide the learner with opportunities:

- For diverse learning experiences. It is mandatory for learners to do an elective. The elective time shall not be used to make up for missed clinical postings, shortage of attendance or other purposes.
- Institution will pre-determine the number and nature of electives, names of the supervisors, and the number of learners in each elective based on the local conditions, available resources and faculty.
- Electives on topics in areas such as Research methodology, Use of Artificial intelligence and computers in Health and Medical Education, Health Management, Health economics, Indian system of medicine, Medical photography /clinical photography, Global Health, Evidence based medicine, Art and music in medicine, Physiotherapy, Nutrition, ethical use of technology including artificial intelligence etc. in medicine, Literary activities, etc. may be provided by the college/ institution.

- It shall be preferable that elective choices are made available to the learners in the beginning of the academic year.
- The learner must submit a learning log book based on both blocks of the electives.
- 75% attendance in the electives and submission of log book maintained during electives is required for eligibility to appear in the final MBBS examination/ NEXT.
- Institutions may use part of this time for strengthening basic skill certification.

Professional Development including Attitude, Ethics and Communication Module (AETCOM):

Objectives of the programme:

At the end of the programme, the learner must demonstrate ability to:

- Understand and apply principles of bioethics and law as they apply to medical practice and research.
- Understand and apply the principles of clinical reasoning as they apply to the care of the patients.
- Understand and apply the principles of system-based care as they relate to the care of the patient,
- Understand and apply empathy and other human values to the care of the patient.
- Communicate effectively with patients, families, colleagues and other health care professionals.
- Understand the strengths and limitations of alternative systems of medicine.
- Respond to events and issues in a professional, considerate and humane fashion.
- Translate learning from the humanities in order to further his professional andpersonal growth.

Learning experiences:

- This will be a longitudinal programme spread across the continuum of the MBBS programme including internship. Learning experiences shall include small group discussions, patient care scenarios, workshops, seminars, role plays, lectures etc.
- Attitude, Ethics & Communication Module (AETCOM module) developed by the erstwhile Medical Council of India should be used longitudinally for purposes of instruction.75% attendance in Professional Development Programme (AETCOM Module) shall be mandatory for eligibility to appear for final examination in each professional year.

Internal Assessment shall include:

- Written tests comprising of short notes and creative writing experiences and OSCE based clinical scenarios /viva voce.
- At least one question in each paper of each clinical specialty in the University examination shall 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.
- Assessment of the Foundation Course should be included in formative assessment of first phase. Assessment of Early Clinical Exposure should be included in formative as well as in internal assessment in first phase subject-wise.
- There should be at least one assessment based on direct observation of skills, attitudes and communication at all levels. Communication and attitudinal assessmentshould also be built in all assessments as far as possible. A log book must be used to record these component.

AETCOM Modules teaching and assessment:

The tables below show the suggested AETCOM blueprinting for various university papers and for module leader/in-charge for coordinating Module teaching. Each module leader/in-charge should select a multi-subject team and then the module is taught by various members of the team. The module teaching learning activities should be planned and conducted by this team.

Assessment: All internal and University exams must have one question/application based question on AETCOM in each theory paper (5%) and it should be assessed in various components of practical/clinical exams.

For the details of various competencies, appropriate T-L methods and assessment, please refer the AETCOM Module published in the website of the National Medical Commission. The competency numbers are present in the tables below.

AETCOM COMPETENCIES YEAR WISE:

AETCOM Competencies for First MBBS:

AETCOM Phase 1		
Subject	**Paper**	**Module number**
Anatomy	Paper 1	1.5
	Paper 2	1.4 Foundations of communications
Physiology	Paper 1	1.2
	Paper 2	1.3
Biochemistry	Paper 1	1.1 • Enumerate and describe professional qualities and roles of a physician. • Describe and discuss commitment to lifelong learning as an important part of physician growth.
	Paper 2	1.1 • Describe and discuss the role of a physician in health care system. • Identify and discuss physician's role and responsibility to society and the community that she/ he serves.

AETCOM Competencies for Second MBBS [Phase II]

AETCOM Phase 2		
Subject	**Paper**	**Module number**
Microbiology	Paper 1	2.1
	Paper 2	2.8
Pharmacology	Paper 1	2.2, 2.3
	Paper 2	2.5
Pathology	Paper 1	2.4
	Paper 2	2.7

AETCOM Competencies for Third year [Phase III/I]

AETCOM Phase 3, part I		
Subject	**Paper**	**Module number**
Ophthalmology	Single paper	3.1
ENT	Single paper	3.3
Forensic Medicine & Toxicology	Single paper	2.6, 3.4
Community Medicine	Paper 1	3.2
	Paper 2	3.5

AETCOM Competencies for Final year [Phase III/II]

AETCOM Phase 3, Part 2		
Subject	**Competency Number**	**Competency**
Medicine and Allied Subjects, integration	Paper 1	4.1
	Paper 2	4.3
Surgery and Allied Subjects,	Paper 1	4.4
	Paper 2	4.5, 4.6
Obstetrics and Gynecology	Paper 1	4.2, 4.7
	Paper 2	4.8
Pediatrics	Single paper	4.9

Alignment and integration (AIT)

Integration is a learning experience that allows the learner to perceive relationships from blocks of knowledge and develop a unified view of its basis and its application.

Objectives

In the earlier phases, the purpose of vertical integration (across phases) is to emphasize the applicative use of the basic science concept taught. In the later phases, its purpose is to utilize and build on prior knowledge and emphasize the foundations of clinical practice.

Learning experiences

To achieve this, the MBBS curriculum will become -

a. Aligned to the extent possible - meaning that as much as possible topics/systems in different subjects in the same phase will be grouped together in the same weeks/months in timetable for teaching learning. The purpose of horizontal integration (within a phase) is to remove redundancy and provide inter-connected ness.
   Phase 3 part 1 and 2 can be aligned accordingly as needed.
b. Integrated to a limited extent both vertically and horizontally.
   Integration must be horizontal (i.e. across disciplines in a given phase of the course) and vertical (across different phases of the course). Teaching/learning occurs in each phase through study of organ systems or disease blocks in order to integrate the learning process.
   Clinical linker cases must be used to integrate and link learning across subjects.
   The six integrated modules to be used across 4 years ½ are anemia, ischemic heart disease, diabetes mellitus, tuberculosis, hypertension and thyroid. The complete modules shall be as per the documents on NMC website.

Following are the tables suggested for alignment in Phase I and Phase II

Phase I Alignment

Suggested Phase-I Alignment Table (Anatomy, Physiology & Biochemistry) (Topics written here are indicative and can be adjusted if required)			
Month	**Anatomy**	**Physiology**	**Biochemistry**
1	-General Anatomy -Lower Limb (LL)	General Physiology, Blood	Cell membrane and organelles, extracellular matrix, Chemistry of carbohydrates, amino-acid & proteins, Lab Safety and Biomedical Waste Management and Chromatography (Demo)
2	-LL/UL -General Embryology & Histology	Blood, N-M	Plasma protein, immunoglobulins, Enzymes, Hemoglobin structure and Hemoglobinopathies, Electrophoresis (Demo), Heme synthesis, Porphyria's, Hemecatabolism, iron metabolism (mineral) Bilirubin formation, Jaundice, colorimetry (Demo)
3	UL -General Embryology & Histology	ANS, CVS	Clinical Enzymology, Chemistry of lipids, and lipoprotein metabolism, carbohydrate metabolism, vitamins, Estimation of Protein and albumin
4	-Abdomen -Related Systemic Embryology & Histology	GIT, Renal	Vitamins, Nutrition, Liver Function Tests, Renal Function Tests, acid-base balance and its disorders, water and electrolyte normal and abnormal analysis of urine(DOAP), Estimation of Urea, creatinine
5	-Abdomen,Pelvis -Related Systemic Embryology & Histology	GIT (contd.), Repro.	Metabolism of proteins and their metabolic disorders, Metabolism of carbohydrates and their metabolic disorders, Diabetes mellitus, Electron transport chain and oxidative phosphorylation, Xenobiotics, Estimation of Glucose.
6	-Thorax -Related systemic Embryology & Histology	Repro (contd.), RS	Metabolism of lipids (remaining) and disorders, Metabolism of proteins, minerals, vitamins, Reproductive Hormones, Prenatal screening, new born screening.
7	H & N–I -Related Systemic Embryology & Histology, Genetics	Endocrine (Neck region), CNS	Hormone Biochemistry; Tumour markers and, Thyroid Function Tests, Adrenal Function tests, Free radicals, and antioxidants
8	H & N–II -Related Systemic Embryology & Histology, Genetics	CNS contd , Special senses	Purine and pyrimidines metabolism, gout, purine salvage pathway, replication, DNA damage and repair mechanism, transcription, translation, post-translational modifications, protein synthesis inhibitors, genetic code, and mutations, estimation of uric acid
9	- Neuroanatomy -Related Systemic Embryology & Histology	CNS (Contd.) Integrated physiology	Molecular biology techniques and Miscellaneous.

Phase II Alignment

	Pathology	Microbiology	Pharmacology
1st month	Gen. Pathology	General. Microbiology, Communication and Ethics (14 competencies)	General Pharmacology
2nd month	Gen. Pathology	General. Microbiology, Communication and Ethics (14 competencies)	General Pharmacology
3rd month	Inflammation Immunology HIV	Immunology and Immunological Disorders (8 competencies)	(ANS/PNS)nsaids
4th month	Immunology	Immunology and Immunological Disorders	Immuno- suppressants
	CVS	CVS & Bloodstream infections (1.5 months)	CVS
1st Internal Assessment			
5th month	CVS Hematology	CVS & Bloodstream infections (1.5 months)	CVS Blood
6th month	Respiratory System (2-3 weeks)	Respiratory System (2.5 weeks)Tb	Chemo
7th month	RespiratorySystem	CNS 1.5 weeks	Respiratory SystemTB (7 hours) CNS 4weeks
	CNS 2 hours,Kidney		
2nd Internal Assessment			
8th month	Kidney Genito-urinary 2 weeks	Genito-urinary and STI 2 wks. GIT Hepatobiliary	Chemotherapy
9th month	GIT Hepatobiliary	GIT Hepatobiliary	GIT
10th month	Boone Breast Skin, eye, joints Endocrine	Musculoskeletal system, Skinand Soft Tissue Infections(2 weeks) Zoonotic & Miscellaneous Infections (2 weeks) HAI and Antimicrobial Stewardship Hospital Infection Control	Drugs on skin, ocular Endocrine
3rd Internal Assessment/ Pre University			
11th month	**Phase 2 University Exam**		

Learner-doctor method of clinical training (Clinical Clerkship)

Goal: To provide learners with experience in

- Longitudinal patient care,
- Being part of the health care team
- Hands-on care of patients in outpatient and in-patient setting Structure
- The first clinical posting in second professional shall orient learners to the patient, their roles and the specialty.

The learner-doctor programme shall progress as outlined here:

Learner - Doctor programme (Clinical Clerkship)

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

- The learner shall function as a part of the health care team with the following responsibilities:
- Be a part of the units' out-patient services on admission days,
- Remain with the admission unit until at least 6 PM except during designated class hours,
- Be assigned patients admitted during each admission day for whom he 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,
- 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 theadmission day, discussing 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.

No learner will be given independent charge of the patient in the capacity of primary physician of the concerned patient. The supervising physician shall be responsible for allpatient care decisions and guide the learner from time to time as required.

Assessment:

- 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.
- The logbook/ 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.
- The logbook shall also include records of outpatients assigned.
- Submission of the logbook/ case record to the department is required for eligibilityto appear for the final examination of the subject.

Assessment

I. Eligibility to appear for Professional examinations:

The performance in essential components of training are to be assessed, based on:

a. Attendance

- There shall be a minimum of 75% attendance 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. There shall be minimumof 80% attendance in AETCOM and family visits under Family adoption programme. Each student shall adopt a minimum of 3 families and preferably five families. The details shall be as per Family Adoption Program guidelines.
- If an examination comprises more than one subject (for e.g., General Surgery and allied branches), the candidate must have a minimum of 75% attendance in each subject including its allied branches, 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/NEXT.

b. Internal Assessment (IA):

Internal assessment shall be based on day-to-day assessment. For subjects taught in more than one phase, there shall be IA in every phase in which the subject is taught. It shall relate to different ways in which learners participate in the learning process including assignments, preparation for seminar, clinical case presentation, preparation of clinical case for discussion, clinical case study/ problem solving exercise, participation in project for health care in the community, Quiz, Certification of competencies, museum study, log books, SDL skills etc.

Internal assessment should have both subjective and objective assessment. Internal assessment shall not be added to summative assessment. However, internal assessment marks in absolute marks should be displayed under a separate column in a detailed marks card.

The Internal assessment marks for each subject will be out of 100 for theory and out of 100 for practical/clinical (except in General Medicine, General Surgery and Obstetrics & Gynecology, in which theory and practical assessment will be of 200 marks each). For subjects that teach in more than one phase, cumulative IA to be used as eligibility criteria.

The Final Cumulative Marks are to be used for eligibility.

The details are:

I. General medicine: The IA of 200 marks in medicine shall be divided across phases as

Phase II - 50 marks,

Phase III part 1 - 50 marks

Phase III part 2 - 100 marks.

During Phase III part 2,

Medicine - 100 marks is divided as - 75 marks

Psychiatry - 13 marks

Dermatology- 12 marks.

The final cumulative IA for Medicine is out of 200 marks for theory and practical each.

General surgery: The IA in surgery shall be divided across phases as:

Phase II - 25 marks,

Phase III part 1 =25 marks

Phase III part 2 =150 marks

During Phase III part 2, 150 marks will be divided as

General surgery =75

Orthopedics =50

Anesthesia - 13 marks.

Radio diagnosis - 12 marks.

The final cumulative IA for surgery is out of 200 marks for theory and practical each.

IA of Forensic Medicine and Toxicology is divided as 25 marks in phase II and 75 marks in Phase III part 1.

The final cumulative IA is out of 100 for theory and practical each.

IA in Community Medicine is divided as 25 marks in phase I, 25 marks in phase II, and 50 marks in Phase III- part 1.

The final cumulative IA for Community Medicine is out of 100 marks for theory and practical each.

IA in ophthalmology and ENT is divided as 25 marks in phase II and 75 marks in Phase III part 1. The final cumulative IA is out of 100 for theory and practical each for each subject.

Learners must secure at least 50% of the total marks (combined in theory and practical / clinical; and minimum 40% in theory and practical separately) for internal assessment in a particular subject to be eligible for appearing at the final University examination of that subject.

2. Regular periodic examinations shall be conducted throughout the course. There shall be no less than three theory and practical internal assessment examinations in each subject of phase 1 & II, and this mandatorily includes pre-university examination. There shall be no less than two theory and clinical examinations in each subject of Phase III part 1 & 2 and this mandatorily includes an end of posting assessment. Logbook (including required skills to be assessed and marks given from 10-20% in internal assessment. Learners must secure at least 50% of the total marks (combined in theory and practical / clinical; and minimum 40% in theory and practical separately) for internal assessment in a particular subject to be eligible for appearing at the final University examination of that subject.

The results of internal assessment should be intimated to students at least once in 3 months or as and when a student wants to see the results.

c) Certifiable Competencies Achieved:

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.

Remedial measures:

A student whose has deficiency(s) in any of the 3 criteria that are required to be eligible to appear in university examination, should be put into remedial process as below:

During the course: If Internal assessment (IA) or attendance is less or/and certifiable competencies not achieved and marked in logbook in quarterly/ six monthly monitoring, the students/parents must be intimated about the possibility of being detained much before the final university examination, so that there is sufficient time for remedial measures. These students should be provided remedial measures as and when needed to improve IA. Any certifiable competency/ IA marks deficiency should be attended with planned teaching/tests for them. Student should complete the remedial measures, and it should be documented. Despite all the above measures, if student is still not meeting the criteria to be eligible for regular exam he shall be offered remedial for the same batch supplementary exam.

For attendance, he will be allowed remedial measures ONLY IF attendance is more than 60% for each component.

At the end of phase:

If Internal assessment (IA) or attendance is less or/and certifiable competencies not achieved and marked in logbook at the end of regular classes in a phase, the student is detained to appear in regular university examination of that batch.

Remedial classes can be planned for students missing regular classes on genuine grounds, thus ensuring that all certifiable competencies are achieved.

Students who have less than 75% attendance in theory and 80% attendance in practical cannot appear for university examination, however; they may appear for Supplementary examination provided they attend the remedial classes organized between University examinations and Supplementary exam. Students who have attendance 60% or above shall be eligible for such remedial classes.

Components of IA

i. Theory IA can include theory tests, send ups, seminars, quizzes, interest in subject, scientific attitude etc. Written tests should have short notes and creative writing experiences.

ii. Practical/Clinical IA can include practical/clinical tests, Objective Structured Clinical Examination (OSCE)/Objective Structured Practical Examination (OSPE), Directly Observed Procedural Skills (DOPS) and Mini clinical evaluation Exercise (mini-CEX), records maintenance and attitudinal assessment.

Feedback in IA

Feedback should be provided for students throughout the course so that they are awareof their performance and remedial action can be initiated well in time. The feedback 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 2 weeks of the test and an opportunity provided for 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 IArecords in token of having seen and discussed the marks. Internal assessment marks willnot be added to University examination marks and will reflect as a separate head of passing at the summative examination.

University Examinations:

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.

Nature of questions shall include different types such as structured essays, (Long Answer Questions -LAQ), Short-Answer Questions (SAQ) and objective type questions (e.g. Multiple-Choice Questions - MCQ). Marks for each part shall be indicated separately. MCQs shall be accorded a weightage of not more than 20% of the total theory marks. Scenario based MCQs shall be accorded more weightage in view of NEXT. Blueprint may be used for theory question papers.

Practical /clinical examinations shall be conducted in the laboratories and /or hospital wards. The objective will be to assess proficiency and skills to conduct experiments, interpret data and form logical conclusions. 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 as examination cases is to be discouraged. Emphasis should be on the 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, and 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.

Application based questions should be included for newer CBME components like foundation course, ECE, AETCOM, Integrated topics, student-learner methods etc. in all theory, practical and clinical examinations of all internal assessments and university assessments.
University Examinations shall be held as under:

First Professional

The first Professional examination shall be held at the end of first Professional training (in the 12th month of that training), in the subjects of Anatomy, Physiology and Biochemistry.

Second Professional

The second Professional examination shall be held at the end of second professional training (l2th month of that training), in the subjects of Pathology, Microbiology, and Pharmacology.

Phase III Part-1examination shall be held at the end of Phase III part 1 of training (12th month of that training) in the subjects of Community Medicine, Forensic Medicine &Toxicology, Ophthalmology and Otorhinolaryngology.

Phase III Part 2 / National Exit Test (NEXT) as per NEXT regulations- (Final Professional) examination shall be at the end of 17th / 18th month of that training, in the subjects of General Medicine, General Surgery, Obstetrics & Gynecology, Pediatrics, and allied subjects as per NEXT Regulations.

Marks distribution for various subjects for University Annual Examinations

Phase of Course	Theory	Practical's	Passing criteria
Phase-I MBBS			
Anatomy- 2 papers	Paper 1- 100	100	
	Paper 2 -100		
Physiology- 2 papers	Paper 1- 100	100	Mandatory to
	Paper 2 -100		get 40% marks
Biochemistry- 2 papers	Paper 1- 100	100	separately in
	Paper 2- 100		theory and in
Phase-II MBBS			practical's; and
Pathology - 2 papers	Paper 1- 100	100	totally 50% for
	Paper 2 -100		theory plus
Microbiology- 2 papers	Paper 1- 100	100	Practicals.
	Paper 2- 100		
Pharmacology- 2 papers	Paper 1 -100	100	
	Paper 2- 100		
Phase-III MBBS part 1			
Forensic Medicine and	Paper 1 – 100	100	
Toxicology- 1 paper			
Community Med – 2 papers	Paper 1 -100	100	
	Paper 2- 100		
Otorhinolaryngology	Paper-1 100	100	
Ophthalmology	Paper-1 100	100	
Phase-III MBBS part 2			
Medicine & allied	Paper 1- 100	100	
	Paper 2- 100		
Surgery & allied	Paper 1- 100	100	
	Paper 2- 100		
Obstetrics and	Paper 1- 100	100	
Gynecology			
	Paper 2- 100		
Pediatrics	Paper-1 100	100	

Medicine & allied Paper-2 to have Medicine 50%, Psychiatry 25% and Dermatology 25% questions.

Surgery & allied Paper-2 to have General Surgery 40%, Orthopedics 40%, Anesthesia 10% and Radio diagnosis 10%.

Any further updates as per NEXT regulations

University examination Question paper pattern:

(Applicable to all the subjects from phase I, II and phase III /Part I and phase III/II where theoryexaminations are to be conducted by the University. The number of papers subject wise will be as per GMER 2024.

For paper I

Type of Questions	Number ofquestions	Marks for eachquestion	Total marks
MCQS	20	1 (ONE)	20
Essay type questions	2	10	20
Short Essay types questions	6	5	30
Short Answers	10	3	30
		Total	**100**

For paper II

Type of Questions	Number ofquestions	Marks for eachquestion	Total marks
MCQS	20	01	20
Long Essay type questions	2	10	20
Short Essay types questions	6	5	30
Short Answers	10	3	30
		Total	**100**

For Papers where Section wise division is required the following pattern can beadopted with each section carrying 50 marks.

Type of Questions	Number of questions	Marks for eachquestion	Total marks
MCQS	10	01	10
Long Essay type questions	1	10	10
Short Essay types questions	3	5	15
Short Answers	5	3	15
		Total	**50**

Break up of total final marks for Phase I:

Theory Marks	Anatomy	Physiology	Biochemistry
Paper I	100	100	100
Paper II	100	100	100
Total Theory Marks University Exam	**200**	**200**	**200**
Practical + Viva-voce			
Practical	80	80	80
Viva Voce	20	20	20
Total Practical + Viva University Exam	**100**	**100**	**100**
Internal assessment			
Theory	100	100	100
Practical	100	100	100
Total	**200**	**200**	**200**

Break up of total final marks for Phase II:

	Pathology	Microbiology	Pharmacology
Theory Marks			
Paper I	100	100	100
Paper II	100	100	100
Total Theory Marks University Exam	**200**	**200**	**200**
Practical's + Viva-voce			
Practical's	80	80	80
Viva Voce	20	20	20
Total Practical + Viva University Exam	**100**	**100**	**100**
Internal assessment			
Theory	100	100	100
Practical	100	100	100
Total	**200**	**200**	**200**

Break up of total final marks for phase III/I:

Theory marks	Forensic Medicine & Toxicology	ENT	Ophthalmology	Community Medicine
Paper I	100	100	100	100
Paper II		---	---	100
Total theory marks in University exams	**100**	**100**	**100**	**200**
Practical's/clinical +viva –voce				
Practical's/clinical	80	80	80	80
Viva-voce	20	20	20	20
Total marks inclusive of clinical/practical's +viva-voce	**100**	**100**	**100**	**100**
Internal assessment				
Theory	100		100	100
Practical/clinical	100		100	100
Total	**200**		**200**	**200**

Detailed breakup of Phase III/II marks distribution.

.

Theory	Medicine & Allied	Surgery & Allied	OBGY	Pediatrics
Paper I	100 (Gen. Medicine)	100 (Gen. Surgery)	100 (OBGy)	100
Paper II	100 Gen. Med- 50 Psychiatry- 25 Dermatology- 25	100 Gen. Sur - 40 Orthopedic- 40 Anesthesia- 10 Radiology- 10	100 Gynecology	--
Clinical +Viva Voce	100	100 (75- Gen Surgery 25- Orthopedics)	100	100

Theory General Medicine:

Paper I – Only General Medicine- 100 Marks

Type of Questions	Number ofquestions	Marks for eachquestion	Total marks
MCQS	20	01	20
Long Essay	02	10	20
Short Essay	06	05	30
Short Answers	10	03	30
		Total	**100**

For paper II

Type of Questions	Number of questions	Marks for each question	Total marks
MCQS	20	01	20
		Psychiatry - 10 Dermatology - 10	
Section I – 40 Marks (Only General Medicine)			
Long Essay	10	1	10
Short Essay	03	05	15
Short Answers	05	03	15
		Total	**100**

General Medicine & Allied - Paper II – Section II – Total 40 Marks

Type of Questions	Number of questions	Marks for each question	Total marks	Department
Long Essay	10	01	10	Gen Medicine
Short Essay	03	05	15	Psychiatry
Short Answers	05	03	15	Dermatology
		Total	**40**	

So in Paper II – Total Marks Subject wise will be

General Medicine - 50

Psychiatry - 25

Dermatology - 25

TOTAL - 100

General Surgery & Allied

Theory – Paper I – 100 Only General Surgery

Type of Questions	Number ofquestions	Marks for eachquestion	Total marks
MCQS	20	01	20
Long Essay	02	10	20
Short Essay	06	05	30
Short Answers	10	03	30
		Total	**100**

6Theory – Paper II - Section I = MCQ's 20 Marks

Section I = 40 Marks

Section II = 40 Marks

Type of Questions	Number ofquestions	Marks for eachquestion	Total marks	Department
MCQS	20	01	20	Anesthesiology + Radiology

Section I - 40 Marks General Surgery only

Type of Questions	Number ofquestions	Marks for eachquestion	Total marks
Long Essay	10	01	10
Short Essay	03	05	15
Short Answers	05	03	15
		Total	**40**

Section II - 40 Marks – (Orthopedics)

Type of Questions	Number ofquestions	Marks for eachquestion	Total marks
Long Essay	10	01	10
Short Essay	03	05	15
Short Answers	05	03	15
Total			**40**

Out of 100 – Surgery - 40
Orthopedics - 40
Anesthesiology - 10
Radiology - 10

Note:

- At least one question in each paper of each PHASE shall test the knowledge and competencies acquired during the professional development programme (AETCOM module).
- Skills competencies acquired during the Professional Development Programme (AETCOM module) shall be tested during clinical, practical and viva voce.
- In subjects that have two papers, the learner must secure minimum 50% of marks in aggregate (both papers together) to pass in the said subject.

Criteria for passing in a subject:

A candidate shall obtain 50% marks in University conducted examination togetherbut has to obtain minimum 40% separately in Theory and in Practical (practical includes: practical/ clinical and viva voce) in order to be declared as passed in that subject. The passing criteria notified by the National Medical Commission as in vogue during the assessment period shall be followed mandatorily.

Supplementary examinations and declaration of results shall be processed by University within 6-8 weeks from the date of declaration of the results of the main examination for every professional year, so that the candidates, who pass, can join the main batch for progression.
A learner shall not be entitled to graduate later than ten (10) years of her/his joining the first MBBS course.

7.7 No more than four attempts shall be allowed for a candidate to pass the first Professional examination. The total period for successful completion of the first Professional course shall not exceed four (4) years. Partial attendance of examination inany subject shall be counted as an attempt.

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 totalmarks 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 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 prescribed will be declared to have passed the examinationin Second Class.

d) A candidate passing the 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.

Department of Community Medicine

UG CURRICULUM, Phase III, Part I

GOAL:

To enable the undergraduate medical student function as a competent Community & Primary Care Physician.

OBJECTIVES:

To be able to use basic epidemiological studies to assess the health problems in the area and prioritize the most important problems and help formulate a plan of action to prevent and control under National Health Programme guidelines.

1. Understand the health care delivery system at different levels in India and plan health care service delivery at primary level for vulnerable groups (mother, infants, under five children, adolescents and geriatrics) and during disasters/emergencies.
2. Inculcate values like compassion, empathy, honesty, sincerity and integrity to ensure high quality ethical professional practice.
3. Work as an effective leader of the health team at the primary health care set-up and maintain liaison with various agencies. (Government, non-government and voluntary organizations) involved in public health.
4. Plan and implement health education programmes and promote community participation.

COMPETENCIES: THE UNDERGRADUATE MUST DEMONSTRATE

1. Understanding of the concept of health and disease,
2. Understanding of demography, population dynamics and disease burden in National and global context,
3. Comprehension of principles of health economics and hospital management,
4. Understanding of interventions to promote health and prevent diseases as envisioned in National and State Health Programmes.
5. Understanding of physical, social, psychological, economic and environmental determinants of health and disease,
6. Ability to recognize and manage common health problems including physical, emotional and social aspects at individual family and community level in the context of National Health Programmes,

7. Ability to Implement and monitor National Health Programmes in the primary care setting,
8. General knowledge about Organ and Tissue donation,
9. Knowledge of maternal and child wellness as they apply to national health care priorities and programmes,
10. Ability to recognize, investigate, report, plan are manage community health problems including malnutrition and emergencies.

KNOWLEDGE: AT THE END OF THE COURSE THE STUDENT SHALL BE ABLE

1. Explain the principles of sociology including demographic population dynamics.
2. Identify social factors related to health, disease and disability in the context of urban and rural societies.
3. Appreciate the impact of urbanization on health and disease.
4. Observe and interpret the dynamic of community behaviours.
5. Describe the elements of normal psychology and social psychology.
6. Observe the principles of practice of medicine in hospital and community settings.
7. Describe the health care delivery systems including rehabilitation of the disabled in the country.
8. Describe the National Health Programmes with particular emphasis on maternal and child health programmes, family welfare planning and population control.
9. Describe the epidemiological methods and techniques.
10. Outline the demographic pattern of the country and appreciate the roles of the individuals, family, community and socio-cultural milieu in health and disease.
11. Describe the health information systems.
12. Acquire, understand, integrate, apply and manage information in context to health care problems and health care delivery system in various communities, health care settings and hospitals.
13. Describe the principles and components of primary health care, National Rural Health Mission and the national health policies to achieve the goal of "Health for all" with regards to identify the environmental, bio-waste and occupational hazards and their control.
14. Describe the importance of water and sanitation in human health.
15. Describe the principles of health economics, health administration, and health education in relation to community.

16. Critically analyse the problem (s) and apply his/her knowledge to solve the problem in holistic manner.
17. Describe and apply principles of prevention, promotion and maintenance of health.

SKILLS: AT THE END OF THE COURSE, THE STUDENT SHALL BE ABLE TO

1. Use the principles and practice of medicine in hospital and community settings and familiarization with elementary practices.
2. Use the Art of communication with patients including history taking and medico social work.
3. Use epidemiology as a scientific tool to make rational decisions relevant to community and individual patient intervention.
4. Organize health care services for vulnerable and disadvantages groups.
5. Organize health care services in case of calamities.
6. Collect, analyse, interpret and present simple community and hospital base data.
7. Diagnose and manage common health problems (including communicable and non-communicable diseases) and emergencies at the individual, family and community levels keeping in mind the existing health care resources and in the context of the prevailing socio-culture beliefs.
8. Diagnose and manage common nutritional problems at the individual and community level.
9. Plan, implement and evaluate a health education Programme with skill to use simple audio-visual aids.
10. Interact with other members of the health care team and participate in the organization of health care services, health advocacy and implementation of national health programmes.
11. Perform Administrative functions at health centres
12. Observe the principles of medical ethics in the practice of his profession.

INTEGRATION:

Department shall adopt an integrated approach towards other clinical disciplines, public health services, NGOs, environmental sciences, social sciences, management, hospital administration, research, etc. to impart training to enable the graduate to work at all levels of health care. The teaching should be aligned and integrated horizontally and vertically in order to allow the learner to understand the impact of environment, society and national health priorities as they relate to the promotion of health and prevention and cure of disease.

COURSE CONTENT

Evolution of Public Health and Concepts of Health

Must know

1. Evolution of Public Health.
2. Definition of health, holistic concept of health, appreciation of health as a relative concept, determinants of health.
3. Characteristics of agent, host and environmental factors in health and disease and the multifactorial etiology of disease.
4. Understanding Natural history of disease and application, interventions at various levels of prevention with appropriate examples.
5. Indices used in measurement of health.
6. Health profile in India.

Desirable to know

1. ICD Classification of diseases.

Nice to know

1. Complementary Alternative Medicine.

Environment and Health

Must know

1. Water:
    a) The concept of safe and wholesome water.
    b) Understanding the methods of purification of water on small scale and large scale.
    c) Various biological standards, including World Health Organization (WHO) guidelines for third world countries.
    d) Principles and methods for assessing quality of water.
    e) Concept of water conservation, rain water harvesting.
2. Sources, health hazards and control of environmental pollution.
3. Problems in the disposal of refuse, sullage, human excreta and sewage and its remedies.
4. Awareness of standards of housing and the effect of poor housing on health.
5. Role of vectors in the causation of diseases.
6. Identifying features of methods of vector control and mode of transmission of vector borne diseases.
7. Hospital Waste Management.

Desirable to know

1. Global Warming.

Nice to know

1. Electronic waste management.

Health Education

Must know

1. The art of communicating: effectively with individuals, family and community using tools and techniques of information, education, and communication. To do so, the student should know:
    a) Principles of communication, methods and evaluation of health education.
    b) Appreciate barriers to effective communication.

Desirable to know

1. Evaluation of health promotion and education programme.
2. Behavior change communication.
3. Counseling in health & diseases.

Nice to know

1. Social Marketing.

Nutrition and Dietetics

Must know

1. Common sources of various nutrients and special nutritional requirement according to age, sex, activity, physiological condition.
2. Nutritional assessment of individual, families and the community by:
    a) selecting and using appropriate methods such as : anthropometry, clinical,
    b) Dietary, laboratory techniques.
3. Plan and recommend a suitable diet for the individuals and families bearing in mind the local availability of foods, economic status, etc.
4. Common nutritional disorders: protein energy malnutrition, vitamin A deficiency, anemia, iodine deficiency disease, fluorosis, food toxin diseases and their control and management.
5. Food adulteration, Prevention of Food Adulteration Act, Food hygiene.
6. National Programmes in Nutrition.

Desirable to know

1. Nutritional surveillance, education and rehabilitation.

Nice to know

1. Preservation of foods.
2. Genetically modified crops.

Occupational Health

Must know

1. Relate the history of symptoms with the specific occupation including agriculture.
2. Identification of the physical, chemical, biological and social hazards to which workers are exposed to while working in a specific occupational environment.
3. General preventive measures against these diseases including accident prevention.
4. Employees State Insurance Scheme.

Desirable to know

1. Various legislations in relation to occupational health.
2. Women in Industry.

Nice to know

1. Social Security
2. Offensive Trades & Occupations.

Social Science and Medicine

Must Know

1. Conduct of a clinico-social evaluation in relation to social, economic and cultural aspects, educational and residential background; attitude to health, disease and to health services; the individuals, family and community.
2. Assessment of barriers to good health, recovery from sickness and to lead a socially and economically productive life.
3. Development of good doctor – patient and community relationship.

Desirable to know

1. Hospital Sociology.

Nice to know:

1. Social Research.

Fundamentals of Bio-Statistics and Health Information

Must know

1. The scope and uses of biostatistics.

2. Collection of data, simple statistical methods for the analysis, classification interpretation and presentation of data, frequency distribution, measures of central tendency, measures of variability.
3. Analyze and interpret data
4. Common sampling techniques
5. Obtaining health information, computing indices (rates and ratio) and making comparisons.
6. Applying test of significance

Desirable to know

1. Calculation of sample size in different settings.
2. Co-relation & regression analysis.

Nice to know

1. Use of statistical Software like – MS-Excel, Epi-Info, SPSS.

Basic Epidemiology and Screening for Diseases

Must know

1. Epidemiology; definition, concept and role in health and disease.
2. Epidemiological study design and research methodologies, concept of association & causation and bias.
3. Use of basic epidemiological tools to make a community diagnosis of the health situation in orders to formulate appropriate intervention measures.
4. Definition of terms used in describing disease transmission & control.
5. Modes of transmission & measures for prevention & control of communicable & non-communicable diseases.
6. Principle sources of epidemiological data.
7. Definition, calculation & interpretation of the measures of frequency of diseases & mortality.
8. Need and uses of screening tests.
9. Accuracy and clinical value of diagnostic and screening test (sensitivity, specificity).
10. Planning, collecting, analyzing. & interpreting data with community participation to reach a community diagnosis.
11. General principles of epidemiology of communicable & non-communicable diseases of public health importance and their control.

a) Planning and investigation of an epidemic of communicable diseases in a community setting.
b) Institution of control measures and evaluation of the effectiveness of these measures.

Desirable to know

1. Risk association and causation.
2. GIS mapping.

Epidemiology of Specific Diseases Communicable and Non-Communicable Diseases

Must know

The specific objectives of selected communicable and non-communicable diseases of public health importance of which National Disease control/Eradication Programmes have been formulated are described here. For other diseases, the individual teacher would formulate the objectives while drawing the lesson plans. The idea of formulation objectives for a few diseases here is to highlight their importance and to emphasize certain learning outcomes.

Communicable diseases: Intestinal infection: Poliomyelitis, viral hepatitis. Diarrheal diseases, Food poisoning, Typhoid, Cholera, Helminthiasis, Amoebiasis.

Respiratory infections: Acute Respiratory infections/Tuberculosis, Measles, Mumps, Rubella, Diphtheria, Whooping cough, Meningococcal meningitis, H_1N_1.

Vector-borne infection: Malaria, Filariasis, Kala-Azar, Dengue, Chickungunya

Surface Infections: Sexually Transmitted Diseases (Syphilis, Gonorrhea, Herpes), HIV & AIDS, Tetanus, Leprosy.

Zoonosis: Rabies, Japanese encephalitis, Plague, Kyasanur Forest Disease, Brucellosis, Anthrax.

Non-communicable diseases: Coronary heart diseases Hypertension, Rheumatic heart disease, Cancers, Diabetes Blindness and accidents off the above communicable & non communicable diseases, study the following:

1. Extent of the problem, epidemiology and natural history of the disease.
2. Relative public health importance of particular disease in a given area.
3. Influence of social, cultural and ecological factors on the epidemiology of the disease.
4. Prevention and control of communicable and non-communicable disease by diagnosing and treating a case and in doing so demonstrate skills in:
    a) Clinical methods.

b) Use of essential laboratory techniques.
c) Selection of appropriate treatment regimes.
d) Follow-up of cases.

5. National Disease Control/Eradication Programmes.

Desirable to know

1. Level of awareness of causation and prevention of disease amongst individuals and communities.
2. Yellow fever, Rickettsia diseases, Leptospirosis, Giardiasis.
3. Hospital acquired infections.

Nice to know

1. Essential drugs, Study of emerging and re-emerging diseases.

Demography and Family Planning

Must know

1. Definition of demography and family welfare program.
2. Stages of the demographic cycle and their impact on the population, concept of demographic gap and population explosion.
3. Definition, calculation and interpretation of demographic indices like birth rate, death rate, fertility rates.
4. Reasons for rapid population growth in India and population dynamics.
5. Identify and describe the different family planning methods and their advantages and shortcomings.
6. Demonstrate skills in motivating a couple for selecting an appropriate family planning method.
7. Medical Termination of Pregnancy Act, (MTP) Revised act 2002-03.

Desirable to know

1. Unmet need of family planning.
2. National Population Policy.

Nice to know

1. Recent advances in family planning methods.
2. Population Stabilization.
3. Replacement level fertility.

Reproductive and Child Health

Must know

1. Need for specialized services for these groups.
2. Magnitude of morbidity and mortality in these groups in the local area and different regions.
3. Local customs and practices during pregnancy, child birth and lactation and complementary feeding.
4. Components of Reproductive & Child Health (RCH-I & RCH-II).
5. Organization, implementation and evaluation of reproductive child health program components.
6. Children in difficult circumstances.
7. Adolescent Health Problems & its prevention & control.

Desirable to know

1. Organization, technical and operational aspects of the National Family Welfare Programme and participate in the implementation of the programme.

Nice to know

1. Integrated Mother & Child Development Service Scheme (IMCDS).

School Health Programme

Must know

1. Objectives of the School Health Programme.
2. Activities of the Programmes like:
    a) Carrying out periodic medical examination of the children & the teachers.
    b) Immunization of children in the school.
    c) Health education.
    d) Mid-day meals.
    e) School health counseling.

Desirable to know

1. Obtaining participation of the teachers in the school health programmes including maintenance of records, defining healthy practices; early detection of abnormalities, national school health programmes.

Nice to know

1. School visit to obtain health profile of school children.

Urban Health

Must know

1. Common health problems (Medical, Social, Environmental, Economical, Psychological) of urban slum dwellers.
2. Organization of health services for slum dwellers.

Health Care System in India

Must know

1. Concept of Primary Health Care and comprehensive health care
2. Health profile of India.
3. Health care delivery system in India and infrastructure at peripheral, primary, secondary and tertiary care level.
4. Job responsibilities of different category of workers in health system.

Desirable to know

1. Voluntary Health agencies working in India.
2. Indian Public Health Standards (IPHS).

Nice to know

1. Central Govt. Health Scheme (CGHS).
2. Public Private Partnership in Public Health.

Health Planning and Management

Must know

1. Concepts of Planning, Management, Public Health Administration.
2. Components of planning a health activity-conducting immunization session.
3. Classification and understanding of various qualitative and quantitative health management techniques.
4. Overview of administration at village, block district, state and central level in India.
5. Integrated Disease Surveillance Project (IDSP).
6. Health related Millennium Development Goals, Sustainable Development Goals.
7. National Health Policy & National Health Mission (NHM).

Desirable to know

1. Concepts of Health Economics in health planning and management evaluation of health services.
2. Concepts, scope and methods of Health Audit.

Nice to know

1. Operational research

Public Health Legislations

Must know

1. Awareness regarding important health legislation in India such as Birth and Death registration act, Child Labour act, Prevention of Food Adulteration (PFA) act.
2. Consumer protection act, Prenatal diagnostics act, Human organ transplant Act health legislations.

Desirable to know

1. Recent Amendments in Public Health legislation.

International Health

Must know

1. Role of various multilateral, bilateral international health organizations like World Health Organization (WHO), UNICEF, Red Cross, CARE, World Bank.

Desirable to know

1. Organizational structure of these organizations.

Nice to know

1. International Health Regulation (IHR).

Geriatrics

Must know

1. Size of elderly population, their common health problems and justification of their special care.
2. Screening procedures for early detection of various diseases and disabilities of elderly.
3. Comprehensive health care aspects of elderly.

Desirable to know

1. National policy for care of elderly.
2. Benefits & social security for elderly in India.

Mental Health & Genetics

Must know

1. Importance of mental health care in primary care settings.
2. Comprehensive mental health care at primary care settings.
3. Factors responsible for good mental health.
4. Chromosomal disorders.
5. Population Genetics & Genetic Counseling.

Desirable to know

1. National mental health programme.
2. National mental health policy.

Nice to know

1. Community psychiatry.

Disaster Management

Must Know

1. Definition, classification of disasters.
2. Triage in disasters.
3. Principles of disaster preparedness and application of these in disaster management.
4. Manmade disasters.

Desirable to know

1. Bio-terrorism
2. Chemical war fare.

National Health Programmes

Must Know

1. National Programmes Related to Communicable Diseases - Revised National Tuberculosis Control Programme (RNTCP), National Leprosy Elimination Programme (NLEP), National AIDS Control Programme (NACP), National Vector Borne Disease Control Programme (NVBDCP), Integrated Disease Surveillance Project (IDSP), Nutritional Programmes, Integrated Child Development Scheme (ICDS), Reproductive Child Health (RCH), Poshan Abhiyaan programme National Health Mission (NHM), National Blindness Control Programme (NBCP), National Programme for Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS); Aayushmaan Bhaarat programme or is it health insurance ?? Strategies and functioning of these programmes at centre, state & primary care level.

Desirable to know

1. Twenty Point Programme, Minimum Needs Programme, Swacch Bharat Abhiyan,

Nice to know

1. Revised Strategies of National Health Programmes.

PROFESSIONAL YEAR – III (Term 5 & 6)

Course Contents

Theory Classes (1hr each) 55 Hours

1. Epidemiology of Communicable & Non-communicable Diseases including National Health Programs, Act & Legislations
   - Number of competencies 07 (CM 8.1 to 8.7)
2. Occupation & Health
   - Number of competencies 05 (CM 11.1 to 11.5)
3. Reproductive maternal & child health
   - Number of competencies 09 (CM 10.1 to 10.9)
4. Geriatric services
   - Number of competencies 04 (CM 12.1 to 12.4)
5. Mental health
   - Number of competencies 03 (CM 15.1 to 15.3)
6. Health planning & management
   - Number of competencies 04 (CM 16.1 to 16.4)
7. Health care of the community
   - Number of competencies 05 (CM 17.1 to 17.5)
8. International health
   - Number of competencies 02 (CM 18.1 to 18.2)
9. Essential medicine
   - Number of competencies 03 (CM 19.1 to 19.3)
10. Recent advances in Community Medicine
    - Number of competencies 04 (CM 20.1 to 20.4)

Self-Directed learning 20 hours

1. Topics of Public Health importance,
   - Examples - Women Health and gender sensitization, Problems of third gender and sensitization, Essential Medicine list, Emerging & re-emerging infections, Health insurance, social marketing, New Public health threats, Recent advances in public health

Block posting (3hrs/day) 4 weeks

1. Medico-Social Case Study (CM 2.1, 2.2, 2.3, 5.2, 5.4)
    - Tuberculosis, HIV/AIDS, Malaria/Dengue, ANC, PNC, Malnutrition, Diabetes/Hypertension
2. Epidemiological problems solving
    - Epidemiological survey, outbreak investigation, tuberculosis/leprosy, malaria/dengue/filaria, vaccine requirement/efficacy/coverage, Sensitivity/specificity

Small Group Learning (2hrs/day) 70 hours

1. LINKER case discussion with respect public health/preventive measures
2. Tutorials - on important topics for exam point of view
3. Group discussions
4. Integrated seminars
5. Quiz
6. Revision of Problems/spotters
7. Written tests, MCQ test, Viva

Family Adoption Programme (3hrs each) 27 hours

1. **Targets to be achieved by the students:**
    - Analysis of their involvement and impact on existing socio-politico-economic dynamics in addition to improvement in health conditions.
    - Final visit to have last round sf active interaction with families
    - Prepare a report to be submitted to department addressing
    - Improvement in general health, immunization, sanitation, de-addiction, healthy lifestyle, control of anaemia, infectious disease, support during illness, social responsibility, environment protection, clean drive etc.

2. **Competency the students should be able to,**
    - Take history and conduct clinical examination of all family members
    - Organize health check-up and coordinate treatment of adopted family under overall guidance of mentor
    - Maintain communication & follow up of remedial measures
    - Take part in environment protection and sustenance activities.

- Council the family members of allotted families and analyses the health trajectory of adopted family under overall guidance of mentor

3. **Activities to be conducted,**
   - Family survey & Health education
   - Diet & lifestyle planning
   - Multispecialty screening camps
   - Community case presentation of family
   - Environment protection group activity
   - Data analysis and presentation
   - Final logbook completion & submission.

Pandemic Module

1. **3.1 - Outbreak Management including Quarantine, Isolation, Contact Tracing (5 hours)**
   - Demonstrate the ability to conduct various epidemiological investigation related to pandemics - Level (or in a simulated environment)
   - Formative assessment – SAQ, MCQ, Viva

2. **3.2 - Interdisciplinary Collaboration, Principles of Public Health Administration, Health Economics, International Health (5 hours)**
   - Demonstrate the ability to conduct various epidemiological investigation related to pandemics (need clarity on simulated environment).
   - Formative assessment – SAQ, MCQ, Viva

3. **3.3 - Operational Research, Field work, Surveillance (8 hours)**
   - Demonstrate the ability to conduct various epidemiological investigation related to pandemics (or in simulated environment)
   - Formative assessment – SAQ, MCQ, Viva

Assessment

1. Formative assessment
    - OSCE (AETCOM) 50 marks,
    - Regular written assignments, MCQ test, Viva
2. 4th Internal examination
    - Theory - written test (100 marks)
    - Practical – MSCS presentation (20 marks)
3. Block posting (ward ending) exams – Case presentation
4. Preliminary examination
    - Theory – Paper I & II (100 marks each)
    - Practical – case presentation, spotters, problem solving exercise (80 marks)
    - Oral viva (20 marks)

ATECOM MODULE **5 hours**

1. **Module 3.5: Case studies in bioethics - Fiduciary duty**
    - **3.5 A** Identify, discuss and defend medico-legal, socio-cultural, professional and ethical issues as it pertains to the physician - patient relationship (including fiduciary duty)
    - 3.5 B. Identify and discuss physician's role and responsibility to society and the community that she/ he serves
    - Total hours – 05
        - Introduction of case – 1 hour
        - Self-directed learning – 2 hours
        - Anchoring lecture – 1 hour
        - Discussion and closure of case – 1 hour

- Points for discussion:
    - Duty of a doctor.
    - The concept of fiduciary duty.
    - Balancing personal and professional life.
    - Where to draw the line!
- Assessment - Formative: The student may be assessed based on their active participation in the sessions (OSCE)
    - Summative: Short questions

INTEGRATED TEACHING:

Horizontal:

Topic	Collaborating Departments
Food Hygiene (CM 5.7)	Microbiology
Investigation of an Epidemic (CM 7.7)	Microbiology
Hospital Waste Management (CM 14)	Microbiology
Epidemiology & Disease Control Measures (CM 8.1 to 8.5)	Microbiology; Pathology
Disorders of air pollution, Tobacco and alcohol (CM 3.1)	Pathology
Essential Medicine (CM 19)	Pharmacology

Vertical integration topics:

Topic	Collaborating Departments
Family Welfare (CM 9.5)	Physiology; OBG
Community Psychiatry (CM 15.1 to 15.3)	Psychiatry
Nutritional Disorders and Prevention (CM 5)	Biochemistry; General Medicine
NCDs and its prevention (CM 8.2)	General Medicine
Emerging Infectious Diseases (CM 7.7)	Microbiology; General Medicine
Antenatal Care and Postnatal care (CM 10.1 to 10.5)	OBG
Mortality indicators in MCH (CM 9.1 & 9.2)	OBG; Pediatrics
Assessment of nutritional status in children and adolescents (CM 5.1 to 5.8)	Pediatrics
Immunization in children (CM 10.5)	Microbiology; Pediatrics
National Programmes for women, infants, children and adolescents (CM 8)	OBG; Pediatrics
Tuberculosis and RNTCP (CM 8)	Pathology; Microbiology; Pharmacology; Respiratory Medicine
Disaster Management (CM 13.1 to 13.4)	General Medicine. Surgery

Internal assessment exam schedules:

1. 1st Internal Assessment will be held at the end of 2nd term.
2. 2nd & 3rd Internal Assessment at the end of 3rd & 4th term.
3. 4th Internal Assessment at the end of 5th term.
4. Preliminary examination at the end of 6th term.

TOTAL MARKS – 100 (THEORY-60; PRACTICAL-40)

Theory out of 60 marks

Practical out of 40 marks

UNIVERSITY EXAMINATION:

* Note: The examination for Community Medicine will be held in Phase III along with Phase – III, Part – I subject.

A. WRITTEN PAPER: 200 MARKS

There shall be two papers, each carrying 100 marks. Each paper shall be of 3 hours duration. The pattern of questions would be of three types:

1. Multiple Choice questions (MCQs) - 20 Marks x 20 questions
2. Long essay question – each question carrying - 10 Marks x 02 questions
3. Short essay question – each question carrying - 05 Marks x 08 questions
4. Short answer question – each question carrying - 03 Marks x 10 questions

Topic wise marks distribution in Paper - I and Paper - II, from the University examination is given below*

However, a strict division of the subject may not be possible and some overlapping of topics is inevitable, students should be prepared to answer overlapping topics.

B. PRACTICAL: 80 Marks (The distribution of different components shall be)

1. Medico-Social Case presentation - 40 marks
2. Problem Solving Exercises (05 x 4 marks each) - 20 marks
    - Problems based on Epidemiology, Biostatistics

OSCE/OSPE (04 x 5 marks) - 20 marks

- Family planning, Environmental health, Nutrition and Health care of Community

C. VIVA VOCE: 20 Marks

- Covering all topics in the syllabus and may include relevant recent advances in the Subject.

Papers	Topics	Marks	1 m	10 m	5 m	3 m	
		Total	MCQ	LAQ	SAQ	SA	Total
Paper I	Environment and Health,	18	3	1	1	0	100
	Basic Epidemiology & Screening of Diseases; Pandemic Module (2.2 & 2.4)	35	8	1	1	4	
	Nutrition and Dietetics	9	1	0	1	1	
	Disaster Management,	3	0	0	0	1	
	Evolution of Public health and Concepts of Health, Disease	9	1	0	1	1	
	Health Education & Communication	6	1	0	1	0	
	Medical Sociology	10	4	0	0	2	
	Bio-statistics	10	2	0	1	1	
		100 M	**20**	**2**	**6**	**10**	
Paper II	ATECOM Module 3.5	5	2	0	0	1	100
	Biomedical Waste Management	3	0	0	0	1	
	Mental Health	3	0	0	0	1	
	Epidemiology of specific diseases: Communicable & Non-communicable diseases, National Health Programmes including Pandemic Module	33	5	1	3	1	
	Reproductive and Child Health, School Health,	18	3	1	1	0	
	Demography & Family Planning	8	3	0	1	0	
	Health Care System in India	5	2	0	0	1	
	Health Planning & Management	4	1	0	0	1	
	Occupational Health	9	1	0	1	1	
	Geriatrics	3	1	0	0	1	
	International Health, NGO	3	0	0	0	1	
	Essential medicine	3	0	0	0	1	
	recent advances	3	2	0	0	0	
		100 M	**20**	**2**	**6**	**10**	

LIST OF TEXT BOOKS AND REFERENCE BOOKS:

1. K. Park. Text Book of Preventive & Social Medicine, 26th Edition, Ms. Baranarasidas Bhanot, Jabalpur.
2. B. K. Mahajan & M. Gupta. Text Book of Preventive & Social Medicine, 4th Edition, Jaypee Brothers Medical Publishers (P) Ltd., New Delhi
3. A H Suryakantha. Community Medicine with Recent Advances, 5th Edition, Jaypee Brothers Medical Publishers (P) Ltd., New Delhi.
4. Gopalan et al. Nutritive Value of Indian Foods Stuffs, 3rd Edition, NIN-ICMR, Hyderabad.
5. J. Kishore. National Health Programmes of India, 10th Edition, Century Publications, New Delhi.
6. B.K. Mahajan. Biostatistics, 8th Edition, Jaypee Brothers Medical Publishers (P) Ltd., New Delhi.
7. Sundarlal, Adarsh, Pankaj. Text Book of Community Medicine (P&SM), 5rd Edition, CBS Publishers & Distributor (P). Ltd., New Delhi.
8. G.K. Ratnaswamy. A Hand Book of Medical Entomology, 2nd Edition. IAPSM's Textbook of Community Medicine, 2nd Edition, Jaypee Brothers Medical Publishers (P) Ltd., New Delhi.
9. Rajvir Bhalwar; Textbook of Community Medicine. 2nd Edition, Wolters Kluwer India (P) Ltd; Pune.

Department of Forensic Medicine and Toxicology

Goals:

At the end of teaching learning in forensic medicine and toxicology, the student should be able to:

1. Comprehend Medico-legal responsibilities of a general physician while rendering Community service either in a rural primary health centre or an urban health centre.
2. Comprehend of basic Medico-legal aspects of hospital and general practice.
3. Understand the rational approach to the investigation of crime, based on scientific and legal principles.
4. Understand the medico-legal framework of medical practice, codes of conduct, medical ethics, Professional Misconduct and Medical Negligence.
5. Conduct Medico-legal examination and documentation of various Medico-legal cases. Identify and interpret important post-mortem findings in common unnatural deaths.
6. Conduct postmortem examination and Preparation of postmortem reports in unnatural deaths- Suicidal, Homicidal, Accidental.
7. Prepare Medical Certificate of Cause of Death (MCCD) and Medico-legal reports of injuries and age estimation.
8. Conduct examination and documentation of sexual offences, intoxication cases and preservation of relevant ancillary materials for medico-legal examination.
9. Analyze, Diagnose, manage legal aspects of common acute and chronic poisoning cases.
10. Understand of latest Acts and laws related to medical professional including related Court judgments e.g. MTP Act, CPA, HOTA etc.

Objectives:

Knowledge

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

1. Identify the basic medico legal aspects of hospital and general practice
2. Define the medico legal responsibilities of a general physician while rendering community service either in a rural primary health centre or an urban health center.
3. Be able to identify, examine and prepare report or certificate in medico legal cases/situations in accordance with the law of land.

4. Able to perform medico legal postmortem and interpret findings and results of other relevant investigations to logically conclude the cause, manner and time since death.
5. Be aware of medical ethics, etiquette, duties, rights, medical negligence and legal responsibilities of the physicians towards patient, profession, society, state and humanity at large.
6. Be aware of relevant legal / court procedures applicable to the medico legal / medical practice

SKILLS:

1. Make observations and logical inferences in order to initiate enquiries in criminal; matters and medico legal problems.
2. Diagnose and treat common emergencies in poisoning and manage chronic toxicity.
3. Make observations and interpret funding at postmortem examination.
4. Observe the principles of medical ethics in the practice of his profession
5. Be able to preserve and dispatch specimens in medico legal / postmortem cases and other concerned materials to the appropriate government agencies for necessary examination.

ATTITUDE / COMMUNICATION:

At the end of the course in the Forensic Medicine and Toxicology, the MBBS student should:

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

INTEGRATION:

Department shall provide an integrated approach towards allied disciplines like Anatomy, Pathology, Radiology, Forensic Sciences, Hospital administration etc., to impart training regarding medico legal responsibilities of physicians at all levels of health care. Integration with relevant disciplines will provide scientific basis of Clinical Toxicology e.g., Medicine, Pharmacology, etc.

COURSE CONTENTS

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FORENSIC MEDICINE & TOXICOLOGY (Topics = 14, Competencies = 158)							
Topic 1: Introduction to forensic medicine basics of legal procedure. Number of competencies: (09) Number of competencies that require certification: (NIL)							
FM1.1	Define Forensic medicine, Clinical Forensic Medicine, Forensic Pathology, State Medicine, Legal Medicine and Medical Jurisprudence	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM1.2	Describe history of Forensic Medicine	K	KH	N	SDL	Written/ Viva voce	
FM1.3	Describe legal competencies including Bharatiya Nagarika Suraksha Sanhita (BNSS), Bharatiya Nyay Sanhita (BNS) Bharatiya Sakshya Adhiniyam (BSA), Protection of Children from Sexual Offences Act (POCSO) Civil and Criminal Cases, Inquest (Police Inquest and Magistrate's Inquest), Cognizable and Non-cognizable offences	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM1.4	Describe Courts in India and their powers: Supreme Court, High Court, Sessions court, Magistrate's Court, Labour Court, Family Court, Executive Magistrate Court and Juvenile Justice Board	K	KH	N	SDL/Moot Court	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM1.5	Describe Court competencies including issue of Summons, conduct money, types of witnesses, recording of evidence oath, affirmation, examination in chief, cross examination, re-examination and court questions, recording of evidence & conduct of doctor in witness box	K	KH	Y	LGT, SGT/ Practicals / Seminars, Moot Court	Written/ Viva voce	
FM1.6	Describe Offenses in Court including Perjury; Court strictures vis-a- vis Medical Officer	K	KH	N	SDL	Written/ Viva voce	
FM1.7	Describe Dying Declaration & Dying Deposition	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM1.8	Describe the latest decisions/notifications/resolutions/ circulars/standing orders related to medico-legal practice issued by Courts/Government authorities etc.	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM1.9	Describe the importance of documentation in medical practice in regard to medico legal examinations, Medical Certificates and medico legal reports especially	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce/Direct observation	

	- Maintenance of patient case records, discharge summary, prescribed registers to be maintained in Health Centres. - Maintenance of medico-legal register like accident register. - documents of issuance of wound certificate - Documents of issuance of drunkenness certificate. - Documents of issuance of sickness and fitness certificate. - Documents for issuance of death certificate. - documents of Medical Certification of Cause of Death - Form Number4 and 4A - documents for estimation of age by physical, dental and radiological examination and issuance of certificate						
Topic 2: Forensic Pathology Number of competencies: (28)					**Number of competencies that require certification : (1)**		
FM2.1	Select appropriate cause of death in a particular scenario by referring ICD 11 code	K	KH	Y	LGT,SGT/ Practicals / Seminars	Written/ Viva voce	
FM2.2	Write a correct Medical Certificate of Cause of Death (MCCD) certificate as per ICD 11 document	S	SH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce/ Direct observation / OSPE	3

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM2.3	Define, describe and discuss death and its types including somatic/clinical/ cellular, molecular and brain-death, Cortical Death and Brainstem Death	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM2.4	Describe salient features of the Organ Transplantation and The Human Organ Transplant (Amendment) Act 2011 and discuss ethical issues regarding organ donation	K	KH	Y	LGT, SGT/ Practicals / Seminars/video demo.	Written/ Viva voce	
FM2.5	Describe and discuss issues related to sudden natural deaths	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM2.6	Describe and discuss natural and unnatural deaths	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM2.7	Discuss moment of death, modes of death – coma, asphyxia and syncope	K	KH	Y	LGT, SGT/ Practicals / Seminars/ Video demo.	Written/ Viva voce	
FM2.8	Describe and discuss suspended animation	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM2.9	Describe and discuss post-mortem changes including signs of death, cooling of body, post-mortem lividity, rigor mortis, cadaveric spasm, cold stiffening and heat stiffening	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP /Video Demo.	Written/ Viva voce/OSPE	
FM2.10	Describe putrefaction, mummification, adipocere and maceration	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP	Written/ Viva voce/OSPE	
FM2.11	Discuss estimation of time since death	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP	Written/ Viva voce/OSPE	
FM2:12	Introduction to mortuary setup and minimum requirement for conducting post-mortem examination and Embalming techniques	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM2.13	Describe and discuss autopsy competencies including post-mortem examination, different types of autopsies, aims and objectives of post-mortem examination	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP	Written/ Viva voce/OSPE	
FM2.14	Describe the legal requirements to conduct post-mortem examination and competencies to conduct medico-legal post-	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP	Written/ Viva voce/OSPE	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM2.15	Describe and discuss obscure autopsy and Virtopsy	K	KH	Y	LGT, SGT/ Practicals / Seminars, Video Demo.	Written/ Viva voce	
FM2.16	Describe and discuss examination of clothing, preservation of viscera on post-mortem examination for chemical analysis and other medico-legal purposes, post-mortem artefacts	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP, Video Demo.	Written/ Viva voce/OSPE	
FM2.17	Describe the clinical features, post-mortem finding and medico legal aspects of injuries due to physical agents like heat (heat-hyper-pyrexia, heat stroke, sun stroke, heat exhaustion / prostration, heat cramps [miner's cramp] or cold (systemic and localized hypothermia, frostbite, trench foot, immersion foot)	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy ,DOAP	Written/ Viva voce	
FM2.18	Describe types of injuries, clinical features, patho-physiology, post- mortem findings and medico-legal aspects in cases of burns, scalds, lightening, electrocution and radiations	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP	Written/ Viva voce/OSPE	
FM2.19	Describe and discuss clinical features, post-mortem findings and medico-legal aspects of death due to starvation and neglect	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM 2.20	Describe special protocols for conduction of medico-legal autopsies in cases of death in custody or following violation of human rights as per National Human Rights Commission Guidelines	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP	Written/ Viva voce/OSPE	
FM2.21	Describe and discuss examination of mutilated bodies or fragments, charred bones and bundle of bones	K	KH	Y	LGT, SGT/ Practicals / Seminars, DOAP	Written/ Viva voce/OSPE	
FM2.22	Describe and discuss exhumation	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM2.23	Crime Scene Investigation: Describe and discuss the objectives of crime scene visit, the duties & responsibilities of doctors on crime scene and the reconstruction of sequence of events after crime scene investigation	K	KH	N	SDL	Written/ Viva voce	
FM2.24	Investigation of anaesthetic, operative deaths: Describe and discuss special protocols for conduction of autopsy and for collection preservation and dispatch of related material Evidences	K	KH	N	SDL	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM2.25	Demonstrate professionalism while conducting autopsy in medico legal situations, interpretation of findings and making inference/ opinion, collection preservation and dispatch of biological or trace evidences	A, C	KH/SH	Y	LGT, SGT/ Practicals / Seminars, DOAP	Written/ Viva voce/ OSPE	
FM2.26	Demonstrate ability to work in a team for conduction of medico-lega autopsies in cases of death following alleged negligence medica dowry death, death in custody or following violation of human rights as per National Human Rights Commission Guidelines on exhumation	A	KH	Y	LGT, SGT/ Practicals / Seminars, DOAP	Written/ Viva voce/ OSPE	
FM2.27	Demonstrate ability to exchange information by verbal, or nonverbal communication to the peers, family members, law enforcing agency and judiciary	A and C	KH	Y	LGT, SGT/ Practicals / Seminars, DOAP	Written/ Viva voce	
FM2.28	Demonstrate ability to use local resources whenever required like in mass disaster situations	A and C	KH	Y	LGT, SGT/ Practicals /Seminars	Written/ Viva voce	
Topic 3: Mechanical asphyxia Number of competencies: (04) Number of competencies that require certification: (NIL)							
FM3.1	Define, classify and describe asphyxia and medico-legal interpretation of post-mortem findings in asphyxial deaths	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP	Written/ Viva voce/OSPE	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM3.2	Describe and discuss different types of hanging and strangulation including clinical findings, causes of death, post-mortem findings and medico-legal aspects of death due to hanging and strangulation including examination, preservation and dispatch of ligature material	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy DOAP	Written/ Viva voce/OSPE	
FM3.3	Describe and discuss patho-physiology, clinical features, post- mortem findings and medico-legal aspects of traumatic asphyxia, obstruction of nose & mouth, suffocation and sexual asphyxia	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP	Written/ Viva voce/OSPE	
FM3.4	Describe and discuss types, patho-physiology, clinical features, postmortem findings and medico-legal aspects of drowning	K	KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP	Written/ Viva voce/OSPE	
	Topic 4: Clinical forensic medicine – identification	**Number of competencies: (05)**			**Number of competencies that require certification : (NIL)**		
FM4.1	Define and describe Corpus Delicti, establishment of identity of living persons including race, sex, religion, complexion, stature.	K	KH	Y	LGT, SGT/ Practicals / Seminars , Bedside clinic, DOAP	Written/Viva voce/ skill assessment	

FM4.2	Discuss teeth-eruption, decay, bite marks, and medico-legal aspects of teeth.	K	KH	Y	LGT, SGT/ Practicals / Seminars , Bedside clinic, DOAP	Written/Viva voce/ skill assessment	
FM4.3	Discuss age determination using morphology, bones- ossification centers and medico-legal aspects of age.	K	KH	Y	LGT, SGT/ Practicals / Seminars , Bedside clinic, DOAP	Written/Viva voce/ skill assessment	
FM 4.4	Describe and discuss identification of criminals, unknown persons, dead bodies from the remains-hairs, fibers, teeth, anthropometry	K	KH	Y	LGT, SGT/ Practicals / Seminars , Bedside clinic, DOAP	Written/Viva voce/ skill assessment	
FM4.5	Dactylography, footprints, scars, tattoos, poroscopy and superimposition	K	KH	Y	LGT, GT/ Practicals / Seminars	Written/ Viva voce	
Topic 5: Clinical forensic medicine - mechanical injuries and wounds		**Number of competencies: (06)**			**Number of competencies that require certification : (NIL)**		
FM5.1	Define, describe and classify different types of mechanical injuries, abrasion, bruise, laceration, stab wound, incised wound, chop wound, defense wound, self-inflicted/ fabricated wounds and their medico-legal aspects	K	KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, DOAP	Written/ Viva voce/OSCE	
FM5.2	Define injury, assault & hurt. Describe Bharatiya Nyay Sanhita (BNS) pertaining to injuries	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM5.3	Describe accidental, suicidal and homicidal injuries. Describe simple, grievous and dangerous injuries. Describe ante-mortem and post-mortem injuries	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM5.4	Describe healing of injury and fracture of bones with its medico-legal importance	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM5.5	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	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM5.6	Describe and discuss different types of weapons including dangerous weapons and their examination	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
Topic 6: Clinical forensic medicine - firearm injuries		**Number of competencies: (02)**			**Number of competencies that require certification : (NIL)**		
FM6.1	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	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM6.2	Describe and discuss wound ballistics-different types of firearm injuries, blast injuries and their interpretation, preservation and dispatch of trace evidences in cases of firearm and blast injuries, various tests related to confirmation of use of firearms	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, DOAP	Written/Viva voce/OSCE	
Topic 7: Clinical forensic medicine - regional injuries		**Number of competencies: (02)**			**Number of competencies that require certification : (NIL)**		
FM7.1	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	LGT, SGT/ Practicals / Seminars, Bed side clinic or autopsy, DOAP	Written/ Viva voce/ OSCE/OSPE	
FM7.2	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	LGT, SGT/ Practicals / Seminars, Bed side clinic or autopsy, DOAP	Written/ Viva voce/ OSCE/OSPE	
Topic 8: Clinical forensic medicine - sexual offences Number of competencies: (16) Number of competencies that require certification : (NIL)							

FM8.1	Describe various sections of BNS and BNSS related to definition of rape, medical examination of rape victim/ survivor and accused of rape, police information by the doctors and medical care with recent amendments notified till date (i.e. Sections 63 BNS, 200 BNS, 397 BNSS & 184 BNSS, 52 BNSS), and recent amendments notified till date, sections 3 to 12, 27 and 41 of Protection of Children from sexual offences (POCSO) Act.	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Video Demo.	Written/ Viva voce/ OSCE/OSPE	
FM8.2	Describe and discuss the examination of the survivor of an alleged case of rape, and the preparation of report, framing the opinion and preservation and dispatch of trace evidences in such cases	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, DOAP, Video Demo.	Written/ Viva voce/OSCE	
FM8.3	Describe and discuss informed consent in sexual intercourse. Describe and discuss histories of gender and sexuality-based (sexual orientation) identities and rights in India. Describe history of decriminalization of 'adultery' and consensual adult homosexual sexual behavior. Describe sexual offences with its medicolegal significance- ➢ Forced/ non-consensual penetrative anal sex ➢ Forced/ non-consensual oral sex	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

	➢ Sexual acts with animals/ bestiality/ zoophilia ➢ Forced/ non-consensual insertion of fingers or objects Forced/ non-consensual touching or groping or disrobing (‘indecent assault’).						
FM 8.4	Define and discuss infanticide, foeticide and stillbirth	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM8.5	Define and discuss signs of intrauterine death, signs of live birth, viability of fetus, age determination of fetus, DOAP of ossification centers, Hydrostatic test, Sudden infant death syndrome and Munchausen’s syndrome by proxy.	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM8.6	Describe the difference between paraphilia and paraphilic disorder. Describe paraphilic disorder as per the latest guidelines of DSM and ICD and describe medico-legal implications of paraphilic disorder by referring scientific literature and legal justification (if any). Describe and discuss various paraphilias in the context of informed consent during any sexual interaction.	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM8.7	Describe legitimacy and its medico legal importance. Describe and discuss how 'signs' of virginity (so called 'virginity test', including finger tests (on female genitalia) are unscientific, inhuman & discriminatory. Describe and discuss how to appraise the courts about unscientific basis of these tests if Court orders it.	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM8.8	Discuss the medico legal aspects of pregnancy and delivery, signs of pregnancy, precipitate labor, superfoetation, superfecundation and signs of recent and remote delivery in living and dead	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM8.9	Discuss disputed paternity and maternity	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM8.10	Discuss Pre-conception and Pre Natal Diagnostic Techniques (PC&PNDT) - Prohibition of Sex Selection Act 2003 and Domestic Violence Act 2005 with Amendments	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM8.11	Define and discuss impotence, sterility, frigidity, sexual dysfunction, premature ejaculation. Discuss the causes of impotence and sterility in male and female	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM9.1	Describe and discuss child abuse and battered baby syndrome	K	K/KH	Y	LGT, SGT/ Practicals/ Seminars	Written/ Viva voce	
FM9.2	Describe and discuss issues relating to torture, identification of injuries caused by torture and its sequalae, management of torture Survivors	K	K/KH	N	SDL	Written/ Viva voce	
FM9.3	Describe and discuss guidelines and Protocols of National Human Rights Commission regarding torture	K	K/KH	N	SDL	Written/ Viva voce	
FM9.4	Should be able to demonstrate the professionalism while dealing with survivor of torture and human right violations, sexual assaults- psychological consultation, rehabilitation	A, C	K/KH/SH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
Topic 10: Medical jurisprudence (medical law and ethics) Number of competencies: (29) Number of competencies that require certification : (NIL)							
FM10.1	Describe Medical Ethics and explain its historical emergence	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.2	Describe the Indian Medical Register	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

FM10.3	Describe the functions and role of National Medical Commission and State Medical Councils	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.4	Describe the Code of Medical Ethics 2002 conduct, Etiquette and Ethics in medical practice and unethical practices & the dichotomy	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.5	Rights/privileges of a medical practitioner, penal erasure, infamous conduct, disciplinary Committee, disciplinary competencies, warning notice and penal erasure	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.6	Describe the Laws in Relation to medical practice and the duties of a medical practitioner towards patients and society	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.7	Describe and discuss ethics related to HIV patients and legal aspects as per The Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (Prevention and Control) Act, 2017.	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.8	Describe the Consumer Protection Act-2019 (Medical Indemnity Insurance, Civil Litigations and Compensations)	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.9	Describe the medico - legal issues in relation to family violence, violation of human rights, NHRC and doctors	K	KH	N	SDL	Written/ Viva voce	
FM10.10	Describe communication between doctors, public and media	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM10.11	Describe and discuss euthanasia and Do not Resuscitate (DNR)	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.12	Discuss legal and ethical issues in relation to stem cell research	K	KH	N	SDL	Written/ Viva voce	
FM10.13	Describe social aspects of Medico-legal cases with respect to survivors of assault, rape, attempted suicide, homicide, domestic violence, dowry- related cases	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.14	Describe & discuss the challenges in managing medico-legal cases including development of skills in relationship management – Human behaviour, communication skills, conflict resolution Techniques	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.15	Describe the principles of handling pressure – definition, types, causes, sources and skills for managing the pressure while dealing with medico-legal cases by the doctor	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.16	Describe and discuss Bioethics	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.17	Describe and discuss ethical Principles: Respect for autonomy, non- malfeasance, beneficence & justice	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

FM10.18	Describe and discuss medical negligence including civil and criminal negligence, contributory negligence, corporate negligence, vicarious liability, Res Ipsa Loquitor, prevention of medical negligence and defenses in medical negligence litigations	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.19	Define Consent. Describe different types of consent and ingredients of informed consent. Describe the rules of consent and importance of consent in relation to age, emergency situation, mental illness and alcohol intoxication	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.20	Describe therapeutic privilege, Malingering, therapeutic Misadventure, Professional Secrecy, Human Experimentation	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.21	Describe Products liability and Medical Indemnity Insurance	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.22	Explain Oath – Hippocrates, Charaka and Sushruta and procedure for administration of Oath.	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.23	Describe the modified Declaration of Geneva and its relevance	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.24	Enumerate rights, privileges and duties of a Registered Medical Practitioner. Discuss doctor-patient relationship: professional secrecy and privileged communication	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM10.25	Clinical research & Ethics Discuss human experimentation including clinical trials	K	KH	N	SDL	Written/ Viva voce	
FM10.26	Discuss the constitution and functions of ethical committees	K	KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.27	Describe and discuss Ethical Guidelines for Biomedical Research on Human Subjects & Animals	K	KH	N	SDL	Written/ Viva voce	
FM10.28	Demonstrate respect to laws relating to medical practice and Ethical code of conduct prescribed by National Medical Commission and rules and regulations prescribed by it from time to time	A and C	SH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM10.29	Demonstrate ability to conduct research in pursuance to guidelines or research ethics	A and C	KH/SH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM11.1	Classify common mental illnesses including post-traumatic stress disorder (PTSD)	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

FM11.2	Define, classify and describe delusions, hallucinations, illusion, lucid interval and obsessions with exemplification	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM11.3	Describe Civil and criminal responsibilities of a mentally ill person	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM11.4	Differentiate between true mental illness from feigned mental illness	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM11.5	Describe & discuss Delirium tremors	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM11.6	Describe the Indian Mental Health Act, 2017 and recent amendments with special reference to admission, care and discharge of a mentally ill person	K	K/KH	N	SDL	Written/ Viva voce	
Topic 12: Forensic laboratory investigation, recent advances and trace evidences Number of competencies: (06)Number of competencies that require certification : (NIL)							
FM12.1	Describe different types of specimen and tissues to be collected both in the living and dead: Body fluids (blood, urine, semen, faeces saliva), Skin, Nails, tooth pulp, vaginal smear, viscera, skull, specimen for histo-pathological examination, blood grouping, HLA Typing and DNA Fingerprinting. Describe Locard's Exchange Principle	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	

FM12.2	Describe the methods of sample collection, preservation, labelling, dispatch, and interpretation of reports	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM12.3	Cyber Forensic in relation to Privacy of Medical Documents	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM12.4	Demonstrate professionalism while sending the biological or trace evidences to Forensic Science laboratory, specifying the required tests to be carried out, objectives of preservation of evidences sent for examination, personal discussions on interpretation of findings	A and C	KH/SH	Y	LGT, SGT/ Practicals / Seminars, DOAPs	Viva voce / OSPE	
FM12.5	Demonstrate the professionalism while preparing reports in medico legal situations, interpretation of findings and making inference/opinion, collection preservation and dispatch of biological or trace evidences	A and C	SH	Y	LGT, SGT/ Practicals / Seminars	OSPE/Viva voce	
FM12.6	Enumerate the indications and describe the principles and appropriate use for: • DNA profiling- • Facial reconstruction • Polygraph (Lie Detector) • Narcoanalysis, • Brain Mapping, Digital autopsy, • Virtual Autopsy, Imaging technologies	K	K/KH	N	SDL	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
Topic 13: Toxicology		**Number of competencies: (21)**			**Number of competencies that require certification : (NIL)**		
FM13.1	Describe the history of Toxicology	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM13.2	Define the terms Toxicology, Forensic Toxicology, Clinical Toxicology and poison.	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM13.3	Describe the various types of poisons, Toxicokinetics, and Toxicodynamics and diagnosis of poisoning in living and dead	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/viva voce	
FM13.4	Describe the Laws in relations to poisons including NDPS Act, Medico-legal aspects of poisons	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM13.5	Describe Medico-legal autopsy in cases of poisoning including preservation and dispatch of viscera for chemical analysis	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy, DOAP	Written/ Viva voce/OSPE	
FM13.6	Describe the general symptoms, principles of diagnosis and management of common poisons encountered in India	K	K/KH	Y	LGT, SGT/ Practicals /Seminars, Bed side clinic, DOAP	Written/ Viva voce/OSCE	

FM13.7	Describe simple Bedside clinic tests to detect poison/drug in a patient's body fluids	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, DOAP	Written/ Viva voce/OSCE	
FM13.8	Describe basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, competencies of enhanced elimination	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, DOAP	Written/ Viva voce/OSCE	
FM13.9	Describe the procedure of intimation of suspicious cases or actual cases of foul play to the police, maintenance of records, preservation and dispatch of relevant samples for laboratory analysis.	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM13.10	Describe the general principles of Analytical Toxicology and give a brief description of analytical methods available for toxicologica analysis: Chromatography – Thin Layer Chromatography, Gas Chromatography, Liquid Chromatography and Atomic Absorption Spectroscopy	K	K/KH	Y	LGT, SGT/ Practicals / Seminars	Written/ Viva voce	
FM13.11	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, competencies of enhanced elimination with regard to: Caustics Inorganic – sulphuric, nitric, and hydrochloric acids; Organic- Carbolic Acid (phenol), Oxalic and acetylsalicylic acids	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, Autopsy, DOAP	Written/ Viva voce/OSCE	

FM13.12	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, competencies of enhanced elimination with regard to Phosphorus, Iodine, Barium	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, Autopsy, DOAP	Written/ Viva voce/OSCE	
FM13.13	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, competencies of enhanced elimination with regard to Arsenic, lead, mercury, copper, iron.	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, Autopsy, DOAP	Written/ Viva voce/OSCE	
FM13.14	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, competencies of enhanced elimination with regard to Ethanol, methanol, ethylene glycol Local Made Liquor and Hooch Tragedy	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, Autopsy, DOAP	Written/ Viva voce/OSCE	
FM13.15	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, competencies of enhanced elimination with regard to Organophosphates, Carbamates, Organochlorines, Pyrethroids, Paraquat, Aluminium and Zinc phosphide	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, Autopsy, DOAP	Written/ Viva voce/OSCE	

FM13.16	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, competencies of enhanced elimination with regard to Ammonia, carbon monoxide, hydrogen cyanide & derivatives, methyl isocyanate, tear (riot control) gases	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, Autopsy, DOAP	Written/ Viva voce/OSCE	
FM13.17	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, competencies of enhanced elimination with regard to: *i.* Antipyretics – Paracetamol, Salicylates *ii.* Anti-Infectives (Common antibiotics – an overview) *iii.* Neuropsychotoxicology Barbiturates, benzodiazepines, phenytoin, lithium, haloperidol, neuroleptics, tricyclics	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Bed side clinic, Autopsy, DOAP	Written/ Viva voce/OSCE	
FM13.18	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, competencies of enhanced elimination with regard to: Narcotic Analgesics, Anaesthetics, and Muscle Relaxants Cardiovascular Toxicology Cardio toxic plants – oleander, Cerbera odollam, aconite, digitalis Gastro- Intestinal and Endocrinal Drugs – Insulin	K	K/KH	Y	LGT, SGT/ Practicals/ Seminars, Bed side clinic, Autopsy, DOAP	Written/ Viva voce/OSCE	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
FM13.19	Describe features and management of Snake bite, scorpion sting, bee and wasp sting and spider bite	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy	Written/ Viva voce	
FM13.20	Describe features and management of abuse/poisoning of Tobacco, cannabis, amphetamines, cocaine, hallucinogens, designer drugs & solvent, Mushroom Poisoning, Food Poisoning	K	K/KH	Y	LGT, SGT/ Practicals / Seminars, Autopsy	Written/ Viva voce	
FM13.21	Describe toxic pollution of environment, its medico-legal aspects &toxic hazards of occupation and industry	K	K/KH	N	SDL	Written/ Viva voce	
Topic 14: Skills in forensic medicine & toxicology Number of competencies: (20) Number of competencies that require certification: (5)							
FM14.1	Examine and prepare Medico-legal report of an injured person with different etiologies in a simulated/ supervised environment	S	SH/P	Y	Bedside clinic (ward/ casualty), SGT/ Practicals / Seminars	Log book/ Skill station/Viva voce /OSCE	3
FM14.2	Demonstrate the correct technique of clinical examination in a suspected case of poisoning & prepare medico-legal report in a simulated/ supervised environment	S	SH	Y	Bedside clinic (ward/casualty), SGT/ Practicals / Seminars	Log book/ Skill station/Viva voce / OSCE	
FM14.3	Assist and demonstrate the proper technique in collecting, preserving and dispatch of the exhibits in a suspected case of poisoning, along with clinical examination	S	SH	Y	Bedside clinic, SGT/ Practicals / Seminars, DOAP	Skill lab/ Viva voce	

FM14.4	Conduct and prepare report of estimation of age of a person for medico-legal and other purposes & prepare medico-legal report in a simulated/ supervised environments	S	KH	Y	SGT/ Practicals / Seminars, Demonstration	Log book/ Skill station/Viva voce / OSCE	
FM14.5	Examine and prepare Medical Certificate Of Cause Of Death (MCCD)in a simulated/ supervised environment	S	SH/P	Y	Bedside clinic (ward/ casualty), SGT/ Practicals / Seminars	Log book/ Skill station/Viva voce / OSCE	3
FM14.6	Conduct & prepare post-mortem examination report of varied etiologies (at least 15) in a simulated/ supervised environment	S	KH	Y	SGT/ Practicals / Seminars, Autopsy, DOAP	Log book/ Skill station/Viva voce / OSCE	3
FM14.7	Demonstrate the correct technique to perform and identify ABO &RH blood group of a person	S	SH	Y	SGT/ Practicals / Seminars, DOAP	Log book/Skill station/Viva voce	
FM14.8	Demonstrate examination of & present an opinion after examination of skeletal remains in a simulated/ supervised environment	S	SH	Y	SGT/ Practicals / Seminars, DOAP	Log book/Skill station/Viva voce	
FM14.9	Demonstrate ability to identify & prepare medico legal inference from specimens obtained from various types of injuries e.g. contusion, abrasion, laceration, firearm wounds, burns, head injury and fracture of bone	S	KH	Y	SGT/ Practicals / Seminars, DOAP	Log book/Skill station/Viva voce/ OSPE	

FM14.10	To identify & describe weapons of medico legal importance which are commonly used e.g. lathi, knife, kripan, axe, gandasa, gupti, farsha, dagger, bhalla, razor & stick. Able to prepare report of the weapons brought by police and to give opinion regarding injuries present on the person as described in injury report/ PM report so as to connect weapon with the injuries. (Prepare injury report/ PM report must be provided to connect the weapon with the injuries)	S	KH	Y	SGT/ Practicals / Seminars, DOAP	Log book/Skill station/Viva voce/ OSPE	
FM14.11	Describe the contents and structure of bullet and cartridges used & to provide medico- legal interpretation from these	S	KH	Y	SGT/ Practicals / Seminars, DOAP	Log book/ Skill	
FM14.12	To estimate the age of foetus by post-mortem examination	S	KH	Y	SGT/ Practicals / Seminars, DOAP	Theory/ Clinical assessment/ Viva voce	
FM14.13	To examine & prepare report of an alleged accused person in cases of various sexual offences in a simulated/ supervised environment. Demonstrate an understanding of framing the opinion, preservation and dispatch of trace evidencxes in such cases. Describe and discuss personal opinions and their impact on such examinations and the need for objectivity/ neutrality to avoid prejudice influencing the case.	S	KH	Y	SGT/ Practicals / Seminars, DOAP	Log book/ Skill station/Viva voce / OSCE	3

FM14.14	To examine & prepare medico-legal report on an alleged victim/ survivor of various sexual offences in a simulated/ supervised environment. (Guidelines and protocols of Medico Legal Care for Survivors/ Victims of sexual violence; Ministry of Health and Family Welfare, GOI- with latest modifications if any). Demonstrate an understanding of framing the opinion, preservation and dispatch of trace evidences in such cases. Describe and discuss sympathetic/ empathetic examination and interview of victims/ survivors of sexual assault, including presence of trusted adult figure (person) in cases of minor victims/ survivors.	S	KH	Y	SGT/ Practicals / Seminars, DOAP	Log book/ Skill station/Viva voce / OSCE	3
FM14.15	To examine & prepare medico-legal report of drunk person in a simulated/ supervised environment	S	KH	Y	SGT/ Practicals / Seminars, Bed side clinic, DOAP	Log book/ Skill station/Viva voce / OSCE	
FM14.16	To identify & draw medico-legal inference from common poisons e.g. dhatura, castor, cannabis, opium, aconite copper sulphate, pesticides compounds, marking nut, oleander, Nux vomica, abrus seeds, Snakes, capsicum, calotropis, lead compounds & tobacco.	S	KH	Y	SGT/ Practicals / Seminars, DOAP	Log book/ Viva voce	
FM14.17	To examine & prepare medico-legal report of a person in police, judicial custody or referred by Court of Law and violation of human rights as requirement of NHRC, who has been brought for medical examination	S	KH	Y	SGT/ Practicals / Seminars, DOAP	Log book/ Skill station/Viva voce / OSCE	

FM14.18	To record and certify dying declaration in a simulated/ supervised environment	S	KH	Y	SGT/ Practicals / Seminars, Role Play, Bed side clinic DOAP	Log book/ Skill station/Viva voce /OSCE	
FM14.19	To collect, preserve, seal and dispatch exhibits for DNA- Fingerprinting using various formats of different laboratories.	S	KH	Y	LGT , SGT/ Practicals / Seminars,	Log book/ Skill station/Viva voce	
FM14.20	To give expert medical/ medico-legal evidence in Court of law	S	KH	Y	LGT, SGT/ Practicals / Seminars, DOAP, role play, Court Visits	Log book/ Viva voce/OSCE	

Teaching Hours

Subject	Theory	Practical/SGT/Tutorials/ Integrated teaching	SDL	AETCOM	Total Hours
Forensic Medicine and Toxicology					
Second professional	12	25	8	00	45
Third professional Part I	35	65	30	00	120
Total	**47**	**90**	**38**	**00**	**175**
AETCOM				**10**	

Course Content Distribution in 2nd and 3rd Professionals
Teaching Content for 2nd Professional
LGT/Theory Classes (Total 12 hours)

Sl.no	Theory Topic (1 hour each)	Competency No.
1	Introduction to FMT Legal Procedure	FM-1.1, 1.3 FM-1.5
2	Legal Procedure	FM-1.7 to 1.9
3	Identification	FM-4.1 to 4.3
4	Identification	FM-4.4 to 4.5
5	Death and it's causes	FM-2.1 to 2.8
6	Postmortem Changes	FM-2.9
7	Postmortem Changes-	FM-2.10 to 2.11
8	Medico legal autopsy	FM- 2.12 to 2.22, 2.24 to 2.28
9	Mechanical injuries	FM- 5.1, 5.4
10	Mechanical injuries	FM- 5.5
11	Firearm injuries	FM 6.1
12	Firearm injuries	FM 6.2

Self-Directed Learning (SDL) (Total 8 hours)

Competency No	Topics for SDL	No. of Hours (Total 8 hrs)
FM 1.2	History of Forensic Medicine	1 hr
FM 1.4	Courts of India and their powers	2 hrs
FM 1.6	Offences in Court; Perjury, Court strictures	1 hr
FM 2.23	Crime scene investigation	2 hrs
FM 2.24	Anesthetic, Operative deaths	2 hrs

AETCOM (Total 5 hours)

Module Competency	Topic	No of hours
Module 2.6	Bioethics continued: Case studies on autonomy and decision making	5 hrs

Practical Classes/ DOAP (Total 12 Hours)

Sl. No	Practical Topics	Competency (one hour each)
1	Introduction to Forensic Medicine Practical's Age estimation – Ossification activity	 FM 14.4
2	Age estimation- Radiological examination	FM 14.4
3	Age estimation- Dental Examination	FM 14.4
4	Age certificate by PDR	FM 14.4
5	Age certificate by PDR	FM 14.4
6	Specimen, Photographs demonstration- 1. Identification 2. Postmortem changes	 FM 4.1 to 4.5 FM 2.9, 2.10, 2.11
7	Specimen, Photographs demonstration- Various Mechanical injuries	 FM 14.9, 5.1, 7.1, 7.2
8	Weapon Examination I	FM 14.10
9	Study of Firearms	FM 14.11, 6.2
10	Blood grouping and typing techniques	FM 14.7
11	Record and certify Dying declaration- Simulation	FM 14.18
12	Drunkenness certificate	FM 14.15

SGT/Tutorials/Seminars (Total 12 hours)

Sl. No	Topic	Competency No. (One hour each)
1	Introduction to FMT Legal Procedure	FM-1.1, 1.3 FM-1.5
2	Legal Procedure	FM-1.7 to 1.9
3	Identification	FM-4.1 to 4.3
4	Identification	FM-4.4 to 4.5
5	Death and it's causes	FM-2.1 to 2.8
6	Postmortem Changes	FM-2.9
7	Postmortem Changes-	FM-2.10 to 2.11
8	Medico legal autopsy	FM- 2.12 to 2.22, 2.24 to 2.28
9	Mechanical injuries	FM- 5.1, 5.4
10	Mechanical injuries	FM- 5.5
11	Firearm injuries	FM 6.1
12	Firearm injuries	FM 6.2
13	Revision class	

Teaching Content for 3rd Professional

LGT/Theory classes (Total 35 hours)

Sl. No	Theory Topics	Competency (one hour each)
1	Regional injuries	FM 7.1
2	Regional injuries	FM 7.2
3	Medico legal aspect of wounds	FM 5.2, 5.3, 5.6
4	Thermal Injuries I	FM 2.17
5	Thermal Injuries II and Starvation	FM 2.18 FM 2.19
6	Mechanical asphyxia I	FM 3.1, 3.2
7	Mechanical asphyxia II	FM 3.3, 3.4
8	Sexual Offences	FM 8.1, 8.2
9	Sexual Offences	FM 8.3, 8.6
10	Impotency, Sterility	FM 8.11, 8.12, 8.14
11	Virginity, Pregnancy and Delivery	FM 8.7, 8.8, 8.9, 8.10
12	Abortion	FM- 8.15, 8.16
13	Infant death	FM 8.4
14	Infant death	FM 8.5
15	Child abuse, Torture and Human Rights	FM 9.1, 9.4
16	Medical Ethics & Law	FM 10.1 to 10.15
17	Medical Ethics & Law	FM 10.16 to 10.29
18	Forensic Psychiatry	FM 11.1, 11.2
19	Forensic Psychiatry	FM 11.3, 11.4, 11.5
20	Forensic Lab investigation in medical practice	FM 12.1 to 12.3
21	Forensic Lab investigation in medical practice	FM 12.4, 12.5
22	General Toxicology	FM 13.1 to 13.5
23	General Toxicology	FM 13.6 to 13.10
24	Corrosive poisoning	FM 13.11
25	Inorganic poisoning	FM13.12
26	Metallic Poisoning	FM 13.13
27	Poisoning; Alcohol and related drugs	FM 13.14
28	Poisoning: Agricultural	FM 13.15
29	Poisoning: Asphyxiants	FM 13.16
30	Poisoning: Antipyretics, Anti-infective, Neuropsychotoxicological	FM 13.17
31	Poisoning: Narcotic analgesics, Anaesthetics, Muscle relaxants,	FM 13.18
32	Poisoning: Cardiotoxic plants and drugs, GI and Endocrine drugs	FM 13.18

33	Animal poisons	FM 13.19
34	Substance abuse- Tobacco, Cannabis, Amphetamines, Cocaine, Hallucinogens, Designer drugs and solvents	FM 13.20
35	Miscellaneous poisoning: Mushroom poisoning, Food poisoning	FM 13.20

Self-Directed Learning (SDL) (Total 30 hours)

Competency No	Topics	No. of Hours (Total 30 hrs)
FM 8.13	National Family programme- Vasectomy	1 hr
FM 8.13	National Family programme- Tubectomy	1 hr
FM 9.2	Torture- Injuries, sequelae, management of torture survivors	3 hrs
FM 9.3	National Human rights commission regarding torture	1 hr
FM 10.9	Medico legal issues regarding Family violence	1 hr
FM 10.9	Medico legal issues regarding violation of Human Rights	2 hrs
FM 10.9	NHRC and Doctors	1 hr
FM 10.12	Stem cell research- Legal and ethical issues	1 hr
FM 10.25	Clinical research and Ethics	2 hrs
FM 10.25	Human experimentation including clinical trials	2 hrs
FM 10.27	Ethical guidelines for Biomedical research on Human subject and animals	3 hrs
FM 11.6	Indian Mental Health Act 2017 and recent amendments	2 hrs
FM 12.6	DNA Profiling	1 hr
FM 12.6	Facial Reconstruction	1 hr
FM 12.6	Polygraph (Lie detector)	1 hr
FM 12.6	Narcoanalysis	1 hr
FM 12.6	Brain Mapping	1 hr
FM 12.6	Digital Autopsy	1 hr
FM 12.6	Virtual autopsy	1 hr
FM 12.6	Imaging technologies	1 hr
FM 13.21	Toxic pollution of environment and its medico legal aspects	1 hr
FM 13.21	Toxic hazards of Occupation and Industries	1 hr

AETCOM (Total 5 hours)

Module Competency	Topic	No of hours
Module 3.4	Case studies in bioethics- Confidentiality	5 hours

Practical Classes/ DOAP (Total 43 Hours)

Sl. No	Practical Topics	Competency (One hour each, unless specified)
1	Autopsy demonstration- minimum 15 cases to be demonstrated	FM 14.6, FM 2.9, 2.10, 2.13, 2.14, 2.16, 2.17, 2.18, 2.20, 2.25, 2.26, 2.27, 3.1 to 3.4, 13.5, 13.11 to 13.15 (21 hours)
2	Skeletal remains examination I	FM 14.8, 2.21
3	Skeletal remains examination II	FM 14.8, 2.21
4	Introduction to Medical evidences- Certificates	FM 14.20
5	Police intimation letter and Wound certificate	FM 14.1, 14.9, 5.1, 7.1, 7.2
6	Wound certificate	FM 14.1, 14.9, 5.1, 7.1, 7.2
7	MCCD	FM 14.5
8	MCCD	FM 2.2
9	Sexual Offence- alleged accused examination and reporting	FM 14.13
10	Sexual offence- Victim/survivor examination and reporting	FM 14.14, 8.2
11	Fetal age by postmortem examination	FM 14.12
12	Poisoning – Clinical examination and medico legal reporting in suspected cases	FM 14.2, 13.6 to13.8,
13	Poisoning- Collecting, Preserving and dispatch of exhibits in suspected cases	FM 14.3
14	Specimens- Poisons- Corrosives,	FM 14.16, 13.11
15	Specimens- Poisons- Plants and seeds	FM 14.16, 13.18
16	Specimens- Poisons- Metallic and inorganic	FM 14.16, 13.12, 13.13
17	Specimens- Poisons- Agricultural	FM 14.16, 13.15
18	Specimens- Animal poisons	FM 14.16, 13.19
19	Specimens- Drug over dosage and Substances of abuse	FM 14.16, 13.14, 13.17, 13.20
20	Examine and prepare medico legal report of a person in police, judicial custody or referred by Court of law and violation of human rights	FM 14.17
21	Expert/Medical evidence in court of law- Court visits	FM 14.18 (2 hours)
22	Grand demonstration	FM 14.1 to 14.18

SGT/Tutorials/Seminars (Total 22 hours)

Sl. No	Topics	Competency (one hour each)
1	Regional injuries	FM 7.1,7.2
2	Medico legal aspect of wounds	FM 5.2, 5.3, 5.6
3	Thermal Injuries, Starvation	FM 2.17, 2.18, 2.19
4	Mechanical asphyxia	FM 3.1, 3.2, 3.3, 3.4
5	Sexual Offences	FM 8.1, 8.2, 8.3, 8.6
6	Impotency, Sterility	FM 8.11, 8.12, 8.14
7	Virginity, Pregnancy and Delivery	FM 8.7, 8.8, 8.9, 8.10
8	Abortion	FM- 8.15, 8.16
9	Infant death, Child abuse, Torture and Human Rights	FM 8.4, 8.5, 9.1, 9.4
10	Medical Ethics & Law	FM 10.1 to 10.29
11	Forensic Psychiatry	FM 11.1 to 11.5
12	Forensic Lab investigation in medical practice	FM 12.1 to 12.5
13	General Toxicology	FM 13.1 to 13.10
14	Corrosive poisoning	FM 13.11
15	Metallic Poisoning, Inorganic poisoning	FM13.12, 13.13
16	Poisoning; Alcohol and related drugs	FM 13.14
17	Poisoning: Agricultural	FM 13.15
18	Poisoning: Asphyxiants	FM 13.16
19	Poisoning: Antipyretics, Anti-infective, Neuropsychotoxicological	FM 13.17
20	Poisoning: Narcotic analgesics, Anaesthetics, Muscle relaxants, Cardiotoxic plants and drugs, GI and Endocrine drugs	FM 13.18
21	Animal poisons	FM 13.19
22	Drug abuse- Tobacco, Cannabis, Amphetamines, Cocaine, Hallucinogens, Designer drugs and solvents, Mushroom poisoning, Food poisoning	FM 13.20

SCHEME OF EXAMINATION

A. INTERNAL ASSESSMENT

Theory (100 marks)

In 2nd professional, one theory examination and in 3rd Professional two theory examinations including preliminary examination and an exclusive MCQ test, shall be conducted,. The MCQ test of total 100 marks consists of 100 MCQs. The Preliminary examination preceding the university examination will be similar to the pattern of university examination i.e., one theory paper of 100 marks. 20% percent of 2nd professional theory exam and 60% of average of all the theory exams in 3rd professional is taken. Additional 5 marks in 2nd professional and 15 marks in 3rd professional are derived from the formative assessment marks based on evaluation of assignments, seminars, SDL etc. shall be added from log book to make a grand total of 100 marks of theory Internal assessment marks.

Practical and Viva-voce (100 marks)

In 2nd professional, one practical examination and in 3rd Professional two practical examinations including preliminary examination shall be conducted. The Preliminary examination preceding the university examination will be similar to the pattern of university examination i.e., one theory paper of 100 marks. 20% percent of 2nd professional practical exam and 60% of average of all the practical exams in 3rd professional is taken. Additional 5 marks in 2nd professional and 15 marks in 3rd professional are derived from the formative assessment marks based on day to day records (practical records and log book) etc book to make a grand total of 100 marks of theory Internal assessment marks.

Theory

Assessments	Marks	Reduced
First internals (2nd professional)	50	20
Second internals (3rd professional)	100	60
MCQ test (3rd professional)	100	
Third internals (Preliminary)	100	
Formative assessment-Part completion test, and integrated assessment, etc .from log book (2nd professional)	5	5
Formative assessment-Part completion test, and integrated assessment, etc. from log book (3rd professional)	15	15
Final internal assessment marks		**100**

Practical and Viva- Voce

Assessments	Marks	Reduced
First internals (2nd professional)	50	20
Second internals (3rd professional)	50	60
Third internals (Preliminary)	100	
Formative assessment-Part completion test, and integrated assessment, etc .from log book (2nd professional)	5	5
Formative assessment-Part completion test, and Practical record book etc .from log book (3rd professional)	15	15
Final internal assessment marks		**100**

B. UNIVERSITY EXAMINATION

I. ELIGIBILITY FOR EXAMINATION

1. The candidate must have undergone satisfactorily the approved course of the study in the subject within prescribed duration.
2. Should have at least 75% of attendance in theory, 80% in practical in 2nd and 3rd professional separately, 75% attendance in AETCOM to become eligible to appear for the examination in the subject.
3. Should have at least 40% of total marks fixed by internal assessment both in theory and practical individually.
4. Should secure 50% marks in aggregate of the total marks combined in theory and practical assigned for IA in the subject.

WRITTEN PAPER: 100 marks

Type of Questions	Number of questions	Marks for each question	Total marks
MCQS	**20**	**1 (ONE)**	**20**
Structured long Essay type questions	**2**	**10**	**20**
Short Essay type questions including AETCOM &applied aspects	**6**	**5**	**30**
Short Answers	**10**	**3**	**30**
Total			**100**

There shall be one theory paper carrying 100 marks and duration of the paper shall be of three hours. (Duration of MCQ examination shall be 25 minutes and there is no negative marking for wrong answers. The MCQ answer script should be collected after 30 minutes)

Blue Printing: The distribution of topics and weightage of marks for University examination is as under:

Sl. No	Topic	Competency	Question types	Minimum marks	Maximum marks
1	Introduction and Legal procedure	FM 1.1 to 1.9	MCQ, SLE, SN, SAQ	5	15
2	Death and its causes Postmortem changes	FM 2.1 to 2.11, 2.19	MCQ, SLE, SN, SAQ	10	15
3	Medico legal autopsy	FM 2.12 to 2.16, 2.20 to 2.28	MCQ, SLE, SN, SAQ	10	15
4	Mechanical Asphyxia	FM 3.1 to 3.4	MCQ, SLE, SN, SAQ	10	15
5	Identification	FM 4.1 to 4.5	MCQ, SLE, SN, SAQ	5	10
6	Injuries	FM 5.1 to 5.6, 6.1, 6.2, 7.1, 7.2, 2.17, 2.18	MCQ, SLE, SN, SAQ	10	15
7	Sexual Jurisprudence	FM 8.1 to 8.16	MCQ, SLE, SN, , SAQ	10	15
8	Child abuse and Torture and Human rights	FM 9.1 to 9.4	MCQ, SN, SAQ	5	5
9	Medical Jurisprudence	FM 10.1 to 10.29	MCQ, SLE, SN, SAQ	10	15
10	Forensic Psychiatry	FM 11.1 to 11.6	MCQ, SLE, SN, SAQ	5	15
11	Forensic laboratory investigation, Recent advances	FM 12.1 to 12.3, 12.6	MCQ, SN, SNA SAQ	5	10
12	Toxicology	FM 13.1 to 13.21	MCQ, SLE, SN, SAQ	10	20
13	AETCOM	Module 2.6, 3.4	SN	5	5

II. PRACTICAL EXAMINATION 80 Marks

Sl. No	Content of each spotters	Number of OSPE/OSCE Total 16 spotters with 5 min duration for each and each spotters carries 5 marks)
1	Age and sex determination by PDR	OSCE 2
2	Weapon examination	OSPE 1 OSCE 1
3	Poisons	OSPE 1 OSCE 1
4	MCCD and wound certificates	OSCE 2
5	Autopsy Questions	OSCE 2
6	Wet specimen, Skeletal remain, slides	OSPE 2
7	Photographs	OSCE 2
8	Models, Instruments	OSPE 2

III. Viva-Voce examination Maximum Marks – 20

The candidate shall be examined by all the four examiners at four tables. Viva will focus on application and interpretation. Viva marks will be added to practical and not to theory. Internal assessment marks will not be added to University examination marks and will reflect as a separate head of passing at the summative examination. The distribution of topics and marks for each table are shown below:

Examination Components with Distribution of Marks

1	Written Paper: Number of paper and maximum marks for each paper	1 X 100 = 100
2	Practical examination	80
3	Viva / Orals	20
	Total	**200**

- For declaration of pass in the subject in university examination, the candidate should pass both theory and practical separately in the same examination securing an aggregate of 50% marks together in theory and practical shall be declared as pass.
- For a pass in theory examination, a student must secure minimum 40% of marks in theory paper.
- For a pass in practical examination in the subject, a student must secure minimum 40% of marks in aggregate in practical and viva-voce examination.
- Candidate must secure 50% aggregate in internal assessment examination and 40% separately in theory and practical in the subject.
- Internal assessment shall be reflected as a separate head of passing at the final university examination.

CERTIFIABLE COMPETENCIES

It should be certified that the student is competent to perform the below skills independently without supervision

Competency	Topic/ Skill details	Number required to certify P	No of hours
FM 2.2	Write a correct Medical Certificate of Cause of Death (MCCD) certificate as per ICD 11 document	3	5
FM 14.1	Examine and prepare Medico-legal report of an injured person with different etiologies in a simulated/ supervised environment	3	5
FM 14.5	Examine and prepare Medical Certificate Of Cause Of Death (MCCD)in a simulated/ supervised environment	3	5
FM 14.6	Conduct & prepare post-mortem examination report of varied etiologies (at least 15) in a simulated/ supervised environment	3	21
FM 14.13	To examine & prepare report of an alleged accused person in cases of various sexual offences in a simulated/ supervised environment. Demonstrate an understanding of framing the opinion, preservation and dispatch of trace evidences in such cases. Describe and discuss personal	3	5

	opinions and their impact on such examinations and the need for objectivity/ neutrality to avoid prejudice influencing the case.		
FM14.14	To examine & prepare medico-legal report on an alleged victim/ survivor of various sexual offences in a simulated/ supervised environment. (Guidelines and protocols of Medico Legal Care for Survivors/ Victims of sexual violence; Ministry of Health and Family Welfare, GOI- with latest modifications if any). Demonstrate an understanding of framing the opinion, preservation and dispatch of trace evidences in such cases. Describe and discuss sympathetic/ empathetic examination and interview of victims/ survivors of sexual assault, including presence of trusted adult figure (person) in cases of minor victims/ survivors.	3	5

RECOMMENDED BOOKS:

1. Narayana Reddy KS – The Essentials of Forensic Medicine & Toxicology, 35th Edition
2. Apurba Nandy– Principles of Forensic Medicine, 3rd Revised Edition.
3. Parekh CK – Parikh's Textbook of Medical Jurisprudence and Toxicology, 9th edition
4. Guharaj PV – Forensic Medicine, 3rd Edition
5. Parikh CK – Parikh's Colour Atlas of Medico-legal Postmortems and Forensic Pathology Guidelines for Crime Investigation, 3rd Edition
6. Pekka Saukko, Bernard Knight – Knight's Forensic Pathology, 4th Edition
7. Pillay VV – Textbook of Forensic Medicine and Toxicology, 20th Edition
8. Krishan Vij – Textbook of Forensic Medicine & Toxicology, 7th Edition.

Department of Ophthalmology

Course contents for MBBS Phase II & Phase III Part-I

Goal:

The broad goal of the teaching of students in Ophthalmology is to provide such knowledge and skills to the student that shall enable him/her to practice as a primary eye care physician and also to function effectively as community health leader to assist in the implementation of National programme for the prevention of blindness [NPCB] and rehabilitation of visually impaired. CBME Curriculum aims at clinical skill development, AETCOM & Integration.

Subject Goals:

The student after teaching / learning in Ophthalmology should be able to:

1. Demonstrate knowledge of common eye disease in the community and the ability to diagnose and manage the common eye disease in primary care set up.
2. Recognize diagnose and manage (primary management) of ocular emergencies in primary care setting and have knowledge of the indication for their referral.
3. Demonstrate knowledge about various cause of blindness and visual impairment in the community.
4. Demonstrate knowledge about various national programs for the control of blindness in the community and their implementation in the primary care setting.
5. Demonstrate knowledge about common Ocular drugs, their mechanism of action, their pharmaceutical, indications dosage schedule, side effects and complications.
6. Demonstrate knowledge about common ocular surgeries, their indication and counselling regarding various ocular procedures and indications for referral from primary care setting.
7. Demonstrate knowledge about eye donations, eye transplantation and eye bank.
8. Perform simple ocular procedures as applicable in primary care setting.
9. Be a team member of national program for control of blindness.
10. Have good rapport with public, colleagues, superiors and subordinates.
11. Counsel patients and their families regarding various ocular conditions, management, and indication for referral.
12. Counsel the blind and visually impaired patients regarding their Rehabilitation.

Competencies: The student must demonstrate:

1. Knowledge of common eye problems in the community
2. Recognize, diagnose & manage common eye problems & identify indications for referral.
3. Ability to recognize visual impairment & blindness in the community & implement national programmes as applicable in the primary care setting.

Objectives

A. KNOWLEDGE:

At the end of the course, student shall have the knowledge of

1. Common problems affecting the eye
2. Principles of management of major ophthalmic emergencies
3. Main systemic diseases of affecting the eye
4. Effects of local and systemic diseases on patients' vision and the necessary action required to minimize the squealed of such diseases.
5. Adverse drug reaction with special reference to ophthalmic manifestations
6. Magnitude of blindness in India and its main causes
7. National programme for control of blindness and its implementation at various levels
8. Eye care education for prevention of eye problems
9. Role of primary health center in organization of eye camps
10. Organization of primary health care and the functioning of the ophthalmic assistant.
11. Integration of the national programme for control of blindness with the other national health programmes.
12. Eye Bank Organization

B. SKILLS

At the end of the course, students shall be able to perform-

1. Elicit a history pertinent to general health and ocular status.
2. Assist in diagnostic procedure such as visual acuity testing, examination of eye, Schiotz tonometry, staining for corneal pathology, confrontation, Perimetry, subjective refraction including correction of presbyopia and aphakia, direct ophthalmoscopy and conjunctival smear examination and cover test.
3. Diagnose and treat common problems affecting the eye.

4. Interpret ophthalmic signs in relation to common systemic disorders
5. Assist / observe therapeutic procedures such as subconjunctival injection, corneal conjunctival foreign body removal, carbolic cautery for corneal ulcers, nasolacrimal duct syringing and tarsorrhaphy.
6. Provide first aid in major ophthalmic emergencies.
7. Assist to organize community surveys for visual check-up.
8. Assist to organize primary eye care service through primary health centres.
9. Use effective means of communication with public and individual to motivate for surgery in cataract and for eye donation
10. Establish rapport with his senior, colleagues and paramedical workers so as to effectively function as a member of the eye care team.

C. INTEGRATION

The teaching should be aligned and integrated horizontally & vertically in order to allow the student to understand the structural basis of ophthalmologic problems, their management and correlation with function, rehabilitation and quality of life.

Ophthalmology MBBS CBME Based Curriculum (Course Contents)										
COMPETENCIES & SPECIFIC LEARNING OBJECTIVES										
Number	**COMPETENCY The student should be able to**	**Specific Learning Objectives [SLO]**	**Domain K/S/A/C**	**Level K/KH/ SH/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**	**Vertical Integration**	**Horizontal Integration**
Topic: Visual Acuity Assessment		**Number of Competences: (05)**				**Number of procedures that require certification : (NIL)**				
OP1.1	Describe the physiology of vision		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology	
		a. by end of Phase 3, students shall be able to describe visual cycle accurately	K	KH	Y	Lecture	Written		Physiology	
		b. by end of Phase3, students shall be able to mention components of vision accurately	K	KH	Y	Small group discussion	Viva voce		Physiology	
		c. by end of Phase 3, students must be able to discuss theories of colour vision precisely	K	KH	Y	Small group discussion	Written		Physiology	

OP1.2	Define, classify and describe the types and methods of correcting refractive errors		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. by end of Phase 3, students shall be able to explain etiology of different refractive errors precisely	K	KH	Y	Lecture	Written			
		b. by end of Phase 3, students shall be able to classify refractive errors precisely	K	KH	Y	Lecture	Written			
		c. by end of Phase 3, students must be able to identify convex/concave lenses, spherical/ cylindrical lenses, monofocals/ multifocal lenses and different types of multifocal lenses accurately.	S	SH	Y	Small group discussion	Viva voce			

		d. by end of Phase 3, students must be able to perform subjective refraction for simple refractive errors like myopia, hypermetropia & presbyopia.	S	SH	Y	Self-directed learning [SDL]	Practical Exam/ OSCE			
OP1.3	Demonstrate the steps in performing the visual acuity assessment for distance vision, near vision, colour vision, the pin hole test and the menace and blink reflexes		S	SH	Y	DOAP session, Lecture	Skill assessment/ Logbook			
		a. at end of Phase 3, student must be able to assess distance visual acuity using snellen's chart with appropriate recording of acuity.	S	SH	Y	DOAP session	Practical Exam/ OSCE			
		b. at end of Phase 3, student must be able to assess near vision using	S	SH	Y	DOAP session	Practical Exam/ OSCE			

		Jagger's chart with accurate notation								
		c. at end of Phase 3, student must be able to check colour vision using Ishihara's chart accurately	S	SH	Y	DOAP session	Practical Exam/ OSCE			
		d. at end of Phase 3, student should be able demonstrate use of pinhole with background knowledge of it's principle.	S	SH	Y	DOAP session	Practical Exam/ OSCE			
		e. at end of Phase 3, student must be able to elicit blink and menace reflexes satisfactorily.	S	SH	Y	DOAP session	Practical Exam/ OSCE			
OP1.4	Enumerate the indications and describe the principles of refractive surgery		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

		a. at end of Phase 3, student must be able to enumerate indications and contraindications of refractive surgeries perfectly	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to discuss different types of refractive surgeries and their principles accurately	K	KH	Y	Small group discussion	Written			
OP1.5	Define, enumerate the types and the mechanism by which strabismus leads to amblyopia		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to define and classify amblyopia precisely	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to explain pathophysiology of	K	KH	Y	Lecture	Written			

		amblyopia correctly								
		c. at end of Phase 3, student must be able to explain treatment of amblyopia accurately	K	KH	Y	Lecture	Written			
Topic: Lids and Adnexa, Orbit		**Number of Competencies: (08)**				**Number of procedures that require certification: (NIL)**				
OP2.1	Enumerate the causes, describe and discuss the aetiology, clinical presentations and diagnostic features of common conditions of the lid and adnexa including Hordeolum externum/ internum, blepharitis, preseptal cellulitis, dacryocystitis, hemangioma, dermoid, ptosis, entropion, lid		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	

	lag, lagopthalmos									
		a. at end of Phase 3, student should be able to differentiate hardeolum internum versus externum versus Chalazion	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student should be able to examine and describe management of proptosis	K	KH	Y	Lecture	Written			
		c. at end of Phase 3, student should be able to diagnose Lagopthalmos and ptosis accurately and describe management.	K	KH	Y	Lecture	Written			
		d. at end of Phase 3, student must be able to describe congenital, acute and chronic dacrocystitis in detail.	K	KH	Y	Lecture	Written			

OP2.2	Demonstrate the symptoms & clinical signs of conditions enumerated in OP2.1		S	S	Y	DOAP session	Skill assessment			
		a. at end of Phase 3, student must be able to demonstrate clinical examination of ptosis	S	S	Z	DOAP session	Practical Exam/ OSCE			
		b. at end of Phase 3, student must be able to demonstrate lacrimal syringing and Criggler's massge techniques accurately	S	SH	Y	DOAP session	Practical Exam/ OSCE			
		c. At end of Phase 3, student must be able to demonstrate examination of a case of orbital tumor	S	S	Y	DOAP session	Practical Exam/ OSCE			
		d. at end of Phase 3, student must be able to elicit signs of thyroid	S	S	Y	DOAP session	Practical Exam/ OSCE			

		orbitopathy satisfactorily.								
		e. at end of Phase 3, student must be able to perform lacrimal syringing and probing in adults accurately	S	SH	Y	Self-directed learning [SDL]	Practical Exam/ OSCE			
OP2.3	Demonstrate under supervision clinical procedures performed in the lid including: bells phenomenon, assessment of entropion/ ectropion, perform the regurgitation test of lacrimal sac. massage technique in cong. Dacryocystitis, and trichiatic cilia removal by epilation		S	SH	Y	DOAP session, Lecture	Skill assessment			

		a. at end of Phase 3, students must be able to demonstrate Bell's phenomenon precisely	S	SH	Y	DOAP session	Practical Exam/ OSCE			
		b. at end of Phase 3, student must be able to demonstrate lacrimal syringing and Criggler's massage techniques accurately	S	SH	Y	DOAP session	Practical Exam/ OSCE			
		c. at end of Phase 3, student must be able to diagnose entropion and ectropion along with etiology	S	SH	Y	DOAP session	Practical Exam/ OSCE			
		d. at end of Phase 3, student must be able to demonstrate trichiatic lash removal with appropriate forceps without causing any trauma to cornea/ conjunctiva	S	SH	Y	DOAP session	Practical Exam/ OSCE			
OP2.4	Describe the aetiology, clinical presentation.		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

	complications and management of orbital cellulitis									
		a. at end of Phase 3, student should be able to differentiate between orbital cellulitis and preseptal cellulitis	S	SH	Y	Small group discussion	Written/ Viva voce			
		b. at end of Phase 3, student must enlist complications of orbital cellulitis with their classical features.	K	K	Y	Lecture	Written/ Viva voce			
		c. at end of Phase 3, student must be able to differentiate bacterial versus fungal orbital cellulitis.	K	KH	Y	Small group discussion	Written/ Viva voce			
OP2.5	Describe the clinical features on ocular examination and management of a patient with		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

	cavernous sinus thrombosis									
		a. at end of Phase 3, student must be able to describe clinical features of cavernous sinus thrombosis	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to describe ocular examination in case of cavernous sinus thrombosis	K	KH	Y	Lecture	Written			
		c. at end of Phase 3, student must be able to describe management of cavernous sinus thrombosis	K	KH	Y	Lecture	Written			
OP2.6	Enumerate the causes and describe the differentiating features, and clinical features		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

	and management of proptosis									
		a. at end of Phase 3, student should be able to examine and describe management of proptosis	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to elicit signs of thyroid orbitopathy satisfactorily.	S	SH	Y	DOAP session	Practical Exam/ OSCE			
		c. at end of Phase 3, student must be able to differentiate vascular tumors of orbit accurately	K	KH	Y	Small group discussion	Written			
OP2.7	Classify the various types of orbital tumours. Differentiate the symptoms and signs of the presentation of various types of ocular tumours		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

		a. at end of Phase 3, student must be able to classify orbital tumors accurately	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to differentiate vascular tumors of orbit accurately	K	KH	Y	Small group discussion	Written			
OP2.8	List the investigations helpful in diagnosis of orbital Tumors. Enumerate the indications for appropriate referral		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, students must be able to radio logically differentiate different ocular tumors	S	KH	Y	Self-directed learning [SDL]	Viva voce		Radiology	
		b. at end of Phase 3, students must be able to order Thyroid tests for indicated cases	S	KH	Y	Lecture	Written			

		c. at end of Phase 3, student must be able to enlist indications for referral of proptosis cases	K	KH	Y	Lecture	Written			
Topic: Conjunctiva			**Number of Competencies (09)**				**Number of procedures that require certification: (NIL)**			
OP3.1	Elicit document and present an appropriate history in a patient presenting with a "red eye" including congestion, discharge, pain		S	SH	Y	DOAP session	Skill Assessment			
		a. at end of Phase 3, student must be able to differentiate a case of red eye based on history accurately	S	SH	Y	DOAP session	Practicals			
		b. at end of Phase 3, student must be able to identify cases of red eye that need referral to an Ophthalmologist	S	SH	Y	DOAP session	Practicals			

OP3.2	Demonstrate document and present the correct method of examination of a “red eye” including vision assessment, corneal lustre, pupil abnormality, ciliary tenderness		S	SH	Y	DOAP session	Skill Assessment			
		a. at end of Phase 3, student must be able to diagnose cause of red eye based on clinical examination precisely	S	SH	Y	DOAP session	Practicals			
		b. at end of Phase 3, student must be able to demonstrate Fincham's test with its clinical significance	S	SH	Y	DOAP session	OSCE			

OP3.3	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications. and management of various causes of conjunctivitis		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications. and management of various causes of conjunctivitis	K	KH	Y	Small group discussion	Written			
		b. at end of Phase 3, student must be able to identify cases that require systemic treatment	K	KH	Y	Small group discussion	Written			

OP3.4	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of trachoma.		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of trachoma in detail	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to identify causative organism of conjunctivitis based on microbiological and pathological reports	S	KH	Y	Small group discussion	OSCE			

		c. at end of Phase 3, student must be able to discuss community health importance of Trachoma accurately	K	KH	Y	Small group discussion	Viva voce			
OP3.5	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of vernal catarrh		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of vernal catarrh correctly	K	KH	Y	Small group discussion	Written			

		b. at end of Phase 3, student must be able to counsel parents of child with VKC regarding nature of illness, need for treatment, preventive measures and prognosis accurately	A/C	KH	Y	Small group discussion	OSCE			
OP3.6	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of pterygium		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of	K	KH	Y	Lecture	Written			

		pterygium correctly.								
		b. at end of Phase 3, student must be able to differentiate between pterygium and pseudopterygium using probe test	S	KH	Y	Bedside clinics	OSCE			
		c. at end of Phase 3, student must be able to take history and examine a case of limbal mass and discuss diagnosis and management protocols.	S	KH	Y	Bedside clinics	Practicals			
		d. at end of Phase 3, student must be able to discuss various modifications of pterygium surgery satisafactorily	K	KH	Y	Small group discussion	Written			
OP3.7	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of symblepharon		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

		a. at end of Phase 3, student must be able to describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of symblepharon correctly	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to demonstarte first aid for a case of chemical injury with demonstration of eye irrigation correctly	K	KH	Y	Small group discussion	Written			
		c. at end of Phase 3, student must be able to discuss management of chemical injuries as per Roperhall classification	K	KH	Y	Small group discussion	Written			

OP3.8	Demonstrate correct technique of removal of foreign body from the eye in a simulated environment		S	SH	Y	DOAP session	Skill assessment			
		a. at end of Phase 3, student must be able to demonstarate correct technique of removal of conjunctival foreign body in a simulated environment	S	SH	Y	DOAP session	OSCE			
		b. at end of Phase 3, student must be able to identify cases of conjunctival foreign body that need referral to Ophthalmologist	S	SH	Y	DOAP session	OSCE			

OP3.9	Demonstrate the correct technique of instillation of eye drops in a simulated environment		S	SH	Y	DOAP session	Skill assessment			
		a. at end of Phase 3, student must be able to demonstrate the correct technique of instillation of eye drops in a simulated environment	S	SH	Y	DOAP session	OSCE			
		b. at end of Phase 3, student must be able to counsel patients regarding correct technique of eyedrop instillation, dose spacing, storage of medicines and timely disposal.	A/C	SH	Y	DOAP session	OSCE			

Topic: Corneas			Number of Competencies: (10)				Number of procedures that require certification: (NIL)			
OP4.1	Enumerate, describe and discuss the types and causes of corneal ulceration		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
		a. at end of Phase 3, student must be able to enumerate, describe and discuss the types and causes of corneal ulceration accurately							Human anatomy	
		b. at end of Phase 3, student must be able to discuss various protective mechanisms of eye precisely								
		c. at end of Phase 3 students must be able to differentiate between neouroparalytic and neurotrophic ulceration logically								

OP4.2	Enumerate and discuss the differential diagnosis of infective keratitis		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, students must be able to enumerate and discuss the differential diagnosis of infective keratitis	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, students must be able to differentiate bacterial versus fungal versus viral keratitis clinically	S	KH	Y	Bedside clinics	Practicals		Microbiology	
		c. at end of Phase 3, student must be able to discuss management of perforated corneal ulcer accurately	K	KH	Y	Small group discussion	Written			
OP4.3	Enumerate the causes of corneal edema		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to enumerate causes of corneal edema	K	KH	Y	Lecture	Written			

		b. at end of Phase 3, student must be able to discuss management of corneal edema	K	KH	Y	Lecture	Written			
OP4.4	Enumerate the causes and discuss the management of dry eye		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able enumerate the causes and discuss the management of dry eye precisely	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to demonstarte Schirmer's test accurately	S	KH	Y	DOAP session	OSCE			
OP4.5	Enumerate the causes of corneal blindness		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, students must be able to enumerate the causes of corneal blindness	K	KH	Y	Lecture	Written			

OP4.6	Enumerate the indications and the types of keratoplasty		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to Enumerate the indications and the types of keratoplasty accurately	K	KH	Y	Small group discussion	Writen			
		b. at end of Phase 3, student must be able to discuss steps of Penetrating keratoplasty accurately	K	KH	Y	Small group discussion	Written			
OP4.7	Enumerate the indications and describe the methods of tarsorraphy		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, students must be able to enumerate the indications and describe the methods of tarsorraphy correctly	K	KH	Y	Lecture	Written			

OP4.8	Demonstrate correct technique of removal of foreign body from cornea in a simulated environment		S	SH	Y	DOAP session	Skill assessment			
		a. at end of Phase 3, student must be able to Demonstrate correct technique of removal of foreign body from cornea in a simulated environment correctly	S	SH	Y	DOAP session	OSCE			
		b. at end of Phase 3, student must be able to identify case of corneal foreign body that needs referral to Ophthalmologist	S	SH	Y	DOAP session	OSCE			

OP4.9	Describe and discuss the importance and protocols involved in eye donation and eye banking		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to describe and discuss the importance and protocols involved in eye donation and eye banking	K	KH	Y	Self-directed learning [SDL]	Written			
OP4.10	Counsel patients and family about eye donation in a simulated environment		A/C	SH	Y	DOAP session	Skill assessment			
		a. at end of Phase 3, students must be able to counsel patients and family about eye donation in a simulated environment	A/C	SH	Y	DOAP session	OSCE			

Topic: Sclera			Number of competencies: (02)				Number of procedures that require certification : (NIL)			
OP5.1	Define, enumerate and describe the aetiology, associated systemic conditions, clinical features complications indications for referral and management of episcleritis		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to define, enumerate and describe the aetiology, associated systemic conditions, clinical features complications indications for referral and management of episcleritis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

OP5.2	Define, enumerate and describe the aetiology, associated systemic conditions, clinical features, complications, indications for referral and management of scleritis		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
		a. at end of Phase 3, student must be able to define, enumerate and describe the aetiology, associated systemic conditions, clinical features, complications, indications for referral and management of scleritis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
		b. at end of Phase 3, student must be able to define and classify staphyloma correctly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Topic: Iris and Anterior chamber			Number of Competencies (10)				Number of procedures that require certification: (NIL)			
OP6.1	Describe clinical signs of intraocular inflammation and enumerate the features that distinguish granulomatous from non-granulomatous inflammation. Identify acute iridocyclitis from chronic condition		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to describe clinical signs of intraocular inflammation and enumerate the features that distinguish granulomatous from non-granulomatous inflammation correctly	K	KH	Y	Lecture	Written			

OP6.2	Identify and distinguish acute iridocyclitis from chronic iridocyclitis		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student should be able to differentiate acute from chronic iridocyclitis based on clinical findings accurately	K	KH	Y	Lecture	Written			
OP6.3	Enumerate systemic conditions that can present as iridocyclitis and describe their ocular manifestations		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
		a. at end of Phase 3, student should be able to enumerate systemic conditions that can present as iridocyclitis and describe their ocular manifestations correctly.	K	KH	Y	Lecture	Written			General Medicine

		b. at end of Phase 3, student should be able to order appropriate laboratory and radiological investigations for diagnosis of Uveitis	K	KH	Y	Lecture	Written			General Medicine
OP6.4	Describe and distinguish hyphema and hypopyon		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		A. at end of Phase 3, student must be able to describe and distinguish hyphaema and hypopyon correctly	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to enumerate atleast 5 causes of hyphaema and hypopyon each.	K	KH	Y	Lecture	Written			
		c. at end of Phase 3, student must be able to discuss management of hyphaema accurately.	K	KH	Y	Lecture	Written			

OP6.5	Describe and discuss the angle of the anterior chamber and its clinical correlates		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human anatomy	
		a. at end of Phase 3, student must be able to describe and discuss the angle of anterior chamber along with grading of angle.	K	KH	Y	Lecture	Written		Human anatomy	
		b. at end of Phase 3, student must be able to demonstrate examination of anterior chamber depth correctly	S	SH	Y	DOAP session, Bedside clinic	OSCE/ Practicals		Human anatomy	
OP6.6	Identify and demonstrate the clinical features and distinguish and diagnose common clinical conditions affecting the anterior chamber		S	SH	Y	Bedside clinic	Skill assessment			

		a. at end of Phase 3, student must be able to Identify and demonstrate the clinical features and distinguish and diagnose common clinical conditions affecting the anterior chamber including coloboma, iris cysts and glaucoma	S	SH	Y	Bedside clinic	Practicals			
OP6.7	Enumerate and discuss the aetiology, the clinical distinguishing features of various glaucomas associated with shallow and deep anterior chamber. Choose appropriate investigations and treatment for patients with above conditions.		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

		a. at end of Phase 3, student must be able to define and classify Glaucoma correctly	K	KH	Y	Lecture	Written/ Viva voce			
		b. at end of Phase 3, student must be able to discuss fundus findings and associated visual field changes of Glaucoma accurately	K	KH	Y	Small group discussion	Written/ Viva voce			
		c. at end of Phase 3, students must be able to define occludable angle, classify primary angle closure glaucoma and discuss in detail pathophysiology, clinical features, investigations and management of acute congestive glaucoma.	K	KH	Y	Small group discussion	Written/ Viva voce			

		d. at end of Phase 3, student must be able to discuss pathophysiology, etiology, predisposing factors, clinical features, investigations and management of primary open angle glaucoma accurately	K	KH	Y	Lecture	Written/ Viva voce			
		e. at end of Phase 3, students must be able to record appropriate clinical history and examine a case of glaucoma.	S	KH	Y	Bedside clinics	Practicals			
		f. at end of Phase 3, student should be able to discuss various causes of secondary glaucoma along with their pathophysiology correctly	K	KH	Y	Lecture	Written/ Viva voce			

		g. at end of Phase 3, students must be able to discuss various laser procedures and surgeries for treatment of Glaucoma correctly	K	KH	Y	Lecture	Written/ Viva voce			
		h. at end of Phase 3, students must be able to perform gonioscopy, goldman applanation tonometry, Perimetry under supervision	S	KH	Y	Self-directed learning [SDL]	Practicals			
OP6.8	Enumerate and choose the appropriate investigation for patients with conditions affecting the Uvea		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to Enumerate and choose the								

		appropriate investigation for patients with conditions affecting the Uvea correctly	K	KH	Y	Lecture	Written			
OP6.9	Choose the correct local and systemic therapy for conditions of the anterior chamber and enumerate their indications, adverse events and interactions		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able to discuss in detail classification, mechanism of action, dosage and adverse effects of anti-glaucoma medications.	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to identify class of drug, mechanism of								

		action, dosage, indications and adverse effects given anti glaucoma medication.	K	KH	Y	Lecture	Viva voce/ Spotters			
OP6.10	Counsel patients with conditions of the iris and anterior chamber about their diagnosis, therapy and prognosis in an empathetic manner in a simulated environment		A/C	SH	Y	DOAP session	Skill assessment			
		a. at end of Phase 3, student must be able counsel patients of chronic uveitis regarding nature of their illness, prognosis, associated risks and need for drug adherence in an empathetic manner in a simulated environment	A/C	SH	Y	DOAP session	OSCE			

		b. at end of Phase 3, student must be able counsel patients of Glaucoma regarding nature of their illness, prognosis, associated risks, familial nature and need for drug adherence and regular follow ups in an empathetic manner in a simulated environment	A/C	SH	Y	DOAP session	OSCE			
Topic: Lens			**Number of Competencies: (06)**				**Number of procedures that require certification: (NIL)**			
OP7.1	Describe the surgical anatomy and the metabolism of the lens		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry, Human Anatomy	
		a. at end of Phase 3, student must be able to describe the surgical anatomy and the metabolism of the lens correctly.								
		b. at end of Phase 3, student must be able to discuss clinical implications of lens anatomy satisfactorily								

OP7.2	Describe and discuss the aetio-pathogenesis, stages of maturation and complications of cataract		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
		a. at end of Phase 3, student must be able to describe and discuss the aetio-pathogenesis, stages of maturation and complications of cataract correctly.								
		b. at end of Phase 3, student must be able to differentiate different types of lens induced glaucomas.								
OP7.3	Demonstrate the correct technique of ocular examination in a patient with a cataract		S	SH	Y	DOAP session	Skill assessment			

		a. at end of Phase 3, students must be able to demonstrate the correct technique of ocular examination in a patient with a cataract	S	SH	Y	DOAP session	Practicals			
		b. at end of Phase 3, student must be able to record accurate history of Cataract patient	S	SH	Y	Bedside clinics	Practicals			
		c. at end of Phase 3, student must be able to discuss in detail pre-operative assessment and investigations of Cataract patient accurately.	S	SH	Y	Bedside clinics	Practicals			
OP7.4	Enumerate the types of cataract surgery and describe the steps, intra-operative and post-operative complications of extracapsular cataract extraction surgery.		S	KH	Y	DOAP session, Lecture, Small group discussion	Written/ Viva voce			

		a. at end of Phase 3, student must be able to discuss different types of cataract surgery along with newer advances correctly	S	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to enumerate steps of ICCE, ECCE, SICS and Phacoemulsification correctly	S	KH	Y	Self-directed learning [SDL]	Viva voce			
		c. at end of Phase 3, student must be able enumerate different types of intraocular lens implants used in Cataract surgery.	S	KH	Y	Self-directed learning [SDL]	OSCE			
		d. at end of Phase 3, students must be able to identify different microsurgical instruments used for cataract surgery.	S	KH	Y	Small group discussion	Viva voce/ spotters			

		e. at end of Phase 3, students must be able to discuss pre-operative, intra operative and post-operative complications of cataract surgery accurately	S	KH	Y	Lecture	Written			
OP7.5	To participate in the team for cataract surgery		S	SH	Y	DOAP session	Skill assessment/ Logbook documentation			
		a. at end of Phase 3, students must observe atleast 10 cases of peribulbar anaesthesia	S	SH	Y	DOAP session	Logbook documentation			
		b. at end of Phase 3, students must have observed atleast 10 cases of SICS and Phacoemulsification each	S	SH	Y	DOAP session	Logbook documentation			
		c. at end of Phase 3, students must have observed atleast 5 cases of yag capsulotomy	S	SH	Y	DOAP session	Logbook documentation			

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		d. at end of Phase 3, students must be able to organise cataract screening camps.	S	KH	Y	Self-directed learning [SDL]	Practicals			
OP7.6	Administer informed consent and counsel patients for cataract surgery in a simulated environment		S	SH	Y	DOAP session	Skill Assessment			
		a. at end of Phase 3, students must be able counsel patients for need for cataract surgery and discuss different options available to them satisfactorily	A/C	SH	Y	DOAP session	OSCE			
		b. at end of Phase 3, students should be able to administer informed consent along with counselling regarding possible complications of cataract surgery	A/C	SH	Y	DOAP session	OSCE			

		c. at end of Phase 3, students must be able to counsel post-operative cataract patients regarding post op care, instructions, need for proper drug dosage and follow ups accurately.	A/C	SH	Y	DOAP session	OSCE			
Topic: Retina & optic Nerve			**Number of Competencies (05)**				**Number of procedures that require certification : (NIL)**			
OP8.1	Discuss the aetiology, pathology, clinical features and management of vascular occlusions of the retina		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, students must be able to discuss the aetiology, pathology, clinical features and management of vascular occlusions of the retina accurately.	K	KH	Y	Lecture	Written			

		b. at end of Phase 3, students must be able to diagnose vascular occlusions based on fundus findings in Skill lab using Direct and indirect Ophthalmoscopy	S	KH	Y	Self-directed learning [SDL]	OSCE			
OP8.2	Enumerate the indications for laser therapy in the treatment of retinal diseases (including retinal detachment, retinal degenerations, diabetic retinopathy & hypertensive retinopathy)		K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, students must be able to discuss the aetiology, pathology, clinical features and management of retinal diseases (including retinal detachment, retinal degenerations, diabetic retinopathy & hypertensive retinopathy)	K	KH	Y	Lecture	Written			

		a. students must be able to enumerate the indications for laser therapy in the treatment of retinal diseases (including retinal detachment, retinal degenerations, diabetic retinopathy & hypertensive retinopathy)	K	K	Y	Self-directed learning [SDL]	Written			
		b. at end of Phase 3, students must be able to diagnose retinal diseases based on fundus findings in Skill lab using Direct and indirect Ophthalmoloscopy	K	KH	Y	Self-directed learning [SDL]	Written			
OP8.3	Demonstrate the correct technique of a fundus examination and describe and distinguish the funduscopic features in a normal condition and in conditions causing an abnormal retinal exam		S	SH	Y	Lecture, Small group discussion	Skill Assessment			

		a. at end of Phase 3, student must be able to discuss correct technique of distant direct ophthalmoscopy, direct ophthalmoscopy and indirect ophthalmoscopy.	S	SH	Y	Self-directed learning [SDL]	OSCE			
		b. at end of Phase 3, student must be able to describe normal fundus accurately.	S	SH	Y	Self-directed learning [SDL]	OSCE			
OP8.4	Enumerate and discuss treatment modalities in management of diseases of the retina		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, student must be able Enumerate and discuss treatment modalities in management of diseases of the retina accurately	K	KH	Y	Lecture	Written			

		b. at end of Phase 3, student must be able to diagnose retinal condition based on fundus photo, OCT and FFA findings.	K	K	Y	Lecture	OSCE			
OP8.5	Describe and discuss the correlative anatomy, aetiology, clinical manifestations, diagnostic tests, imaging and management of diseases of the optic nerve and visual pathway		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
		a. at end of Phase 3, students should be able to discuss correlative anatomy and physiology of visual pathway correctly	K	KH	Y	Lecture	Written		Anatomy	
		b. at end of Phase 3, students must be able to demonstrate examination of	S	KH	Y	DOAP session	Practicals			

		pupillary reflexes correctly								
		c. at end of Phase 3, students must be able to discuss various abnormal pupillary responses and etiology.	S	KH	Y	DOAP session	OSCE			
		d. at end of Phase 3, students must be able to discuss etiopathologenesis, clinical features, visual field changes, investigations and treatment of different optic nerve diseases including inflammatory optic neuropathy and ischemic optic neuritis.	K	KH	Y	Lecture	Written			
		e. at end of Phase 3, student must be able to diagnose site of optic nerve compression based on visual field defects.	K	KH	Y	Small group discussion	OSCE		Human Anatomy	

		at end of Phase 3, student must be able to define papilloedema along with causes.	K	KH	Y	Lecture	Written			
Topic: Miscellaneous			**Number of Competencies (05)**				**Number of procedures that require certification: (01)**			
OP9.1	Demonstrate the correct technique to examine extra ocular movements (Uniocular & Binocular)		S	P	Y	DOAP session	Skill Assessment	5		
		a. at end of Phase 3, student must be able to demonstrate the correct technique to examine extra ocular movements (Uniocular & Binocular)	S	P	Y	DOAP session	OSCE	5		
OP9.2	Classify, enumerate the types, methods of diagnosis and indications for referral in a patient with heterotropia/ strabismus		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ skill assessment			

		a. at end of Phase 3, student must be able to classify, enumerate the types, methods of diagnosis and indications for referral in a patient with heterotropia/ strabismus.	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to demonstrate correct technique of Hirschberg test with accurate recording of findings.	S	KH	Y	DOAP session	OSCE			
		c. at end of Phase 3, student must be able to discuss different tests of squint examination including cover uncover, alternate cover test, maddox rod test, prism bar cover test and stereopsis tests.	S	K	Y	OPD demonstration	OSCE			
		d. at end of Phase 3, student must be able to evaluate a case of strabismus.	S	K	Y	Small group discussion	Practicals			

OP9.3	Describe the role of refractive error correction in a patient with headache and enumerate the indications for referral		K	K	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
		a. at end of Phase 3, student must be able to describe importance of ocular examination in a patient with chronic headache	K	K	Y	Small group discussion	Written			
		b. at end of Phase 3, student must be able to Describe the role of refractive error correction in a patient with headache and enumerate the indications for referral.	K	K	Y	Small group discussion	Written			
OP9.4	Enumerate, describe and discuss the causes of avoidable blindness and the National		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Community Medicine

	Programs for Control of Blindness (including vision 2020)									
		a. at end of Phase 3, student must be able to enumerate, describe and discuss the causes of avoidable blindness correctly	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to discuss in detail aims, componts and imputation of National Progamme for Control of Blindness (including Vision 2020)	K	KH	Y	Lecture	Written			
OP9.5	Describe the evaluation and enumerate the steps involved in the stabilisation, initial management and indication for		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

	referral in a patient with ocular injury									
		a. at end of Phase 3, student must be able to classify ocular trauma, discuss various ocular manifestations of trauma correctly	K	KH	Y	Lecture	Written			
		b. at end of Phase 3, student must be able to discuss management of intraocular Foreign body accurately	K	KH	Y	Lecture	Written			
		c. at end of Phase 3, student must be able to describe the evaluation and enumerate the steps involved in the stabilisation, initial management and indication for referral in a patient with ocular injury	K	KH	Y	Lecture	Written			

		d. at end of Phase 3, student must be able to identify indication for referral in a patient with ocular injury.	S	SH	Y	Self-directed learning [SDL]	Practicals			
Integration										
Human Anatomy										
AN30.5	Explain effect of pituitary tumours on visual pathway		K	KH	N	Lecture	Written		Ophthalmology	
AN31.3	Describe anatomical basis of Horner's syndrome		K	KH	N	Lecture	Written		Ophthalmology	
AN31.5	Explain the anatomical basis of oculomotor, trochlear and abducent nerve palsies along with strabismus		K	KH	Y	Lecture	Written		Ophthalmology	
AN41.1	Describe & demonstrate parts and layers of eyeball		K/S	SH	Y	Practical, Lecture, Small group discussion	Written/ Viva voce		Ophthalmology	
AN41.2	Describe the anatomical aspects of cataract, glaucoma &		K	KH	N	Lecture	Written		Ophthalmology	

	central retinal artery occlusion									
Physiology										
PY10.17	Describe and discuss functional anatomy of eye, physiology of image formation, physiology of vision including colour vision, Refractive errors, colour blindness, Physiology of pupil and light reflex		K	KH	Y	Lecture, Small group discussion	Written/viva		Ophthalmology	
PY10.18	Describe and discuss the physiological basis of lesion in visual pathway		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Ophthalmology	
PY10.19	Describe and discuss auditory & visual evoke potentials		K	KH	Y	Lecture, Small group discussion	Written/ viva		Ophthalmology	

PY10.20	Demonstrate testing of visual acuity, colour and field of vision in volunteer/ simulated environment		S	P	Y	DOAP sessions	Skill assessment/ Viva voce	1	ENT, Ophthalmology	
Pathology										
PA36.1	Describe the etiology, genetics, pathogenesis, pathology, presentation, sequelae and complications of retinoblastoma		K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Ophthalmology	
Pharmacology										
PH1.58	Describe drugs used in Ocular disorders		K	KH	Y	Lecture	Written/ Viva voce		Ophthalmology	
General Medicine										
IM24.15	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute		K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Ophthalmology	

	care, stabilization, management and rehabilitation of vision and visual loss in the elderly									

TEACHING

HORIZONTAL INTEGRATION			VERTICAL INTEGRATION		
Departments	**Competency**	**Topics**	**Departments**	**Competency**	**Topics**
Community Medicine	14.2	NPCB	Anatomy	13.7	3,4,5 &6 Cranial Nerve Anatomy
ENT	3.2	Orbital Cellulitis	Physiology	1.1	Physiology of Vision
	4.7	Lacrimal drainage system			
General Medicine	11.2	Diabetic Retinopathy	Biochemistry	1.1	Visual cycle
	3.4	Thyroid eye disease			
General Surgery	15.3	Principles of wound repair	Pathology	11.5	Retinoblastoma
				12.9	Optic nerve tumors
Pediatrics	11.2	Retinopathy of prematurity	Pharmacology	9.6	Ocular Pharmacology
Obstetrics & Gynecology	11.8	Ocular changes in Pregnancy	Microbiology	16.9	Microbiological profile of Ocular infections

Attitude, Ethics and Communication Module (AETCOM)

Module 3.1: The foundations of communication - 3

Background

Communication is a fundamental prerequisite of the medical profession and beside skills is crucial in ensuring professional success for doctors. This module builds on the listening skills developed in professional year II. The Kalamazoo consensus statement provides a working model of teaching communication skills and may be used to impart communication skills. Skills, that will be introduced, should include “dealing with emotion”.

Competency addressed

The student should be able to:	**Level**
Demonstrate ability to communicate to patients in a patient, respectful, nonthreatening, non-judgmental and empathetic manner	SH

Learning Experience

Year of study: Professional year 3

Hours: 5 (1 + 2 +2)

a) Introductory small group session - 1 hour
b) Focused small group session - 2 hours
c) Skills Lab session - 2 hour

Contents:

1. Introductory small group session on the principles of communication with focus on dealing with emotions.
2. Focused small group session with role play or video where students have an opportunity to observe, critique and discuss common mistakes when dealing with emotion.
3. Skills lab sessions where students can perform tasks on standardised or regular patients with opportunity for self-critique, critique by patient and by facilitator.

Assessment

1. **Formative:** Participation in session 2 and performance in session 3 may be used as part of formative assessment.
   AETCOM competencies for IMG
2. **Summative:** may be deferred.

CLINICAL TEACHING DURING POSTINGS

Subject	Period of training in Weeks		Total Weeks
	MBBS Phase-II	MBBS Phase-III Part-I	
Ophthalmology	04	04	08

- DOAP Sessions will be conducted for Phase II
- Bedside Clinical will be conducted for Phase III Part-I

INNOVATIVE TEACHING

1. Students will be encouraged to take up STS projects.
2. Pupillary reflexes, ocular movements demonstrated on Mannequins in skill lab

TEACHING SCHEDULE AND HOURS ALLOTTED

MBBS Phase III Part-I

Sl. No	Topics	Lectures 30 Classes of 1 Hour Each	Tutorials / Small Group Discussion/ Seminars 25 Sessions of 2 Hours Each	SDL 10 Sessions of 2 Hours Each
1	Basic science, Refractive errors	2hrs	4hrs	2hrs
2	Disease of Eye Lids	1hrs	2hrs	
3	Disease of Orbit	2hrs	4hrs	2hrs
4	Disease of Lacrimal Apparatus	2hrs	2hrs	2hrs
5	Disease of Conjunctiva	2hrs	2hrs	
6	Disease of Cornea	2hrs	2hrs	2hrs
7	Disease of Sclera	1hrs	-	-
8	Disease of Iris and Anterior Chamber	2hrs	2hrs	-
9	Ocular Trauma	1hrs	2hrs	2hrs
10	Glaucoma	2hrs	4hrs	2hrs
11	Disease of Lens	2hrs	4hrs	2hrs
12	Disease of Retina &Vitreous	2hrs	4hrs	4hrs
13	Neuro-Ophthalmology	2hrs	4hrs	-
14	Squint	2hrs	4hrs	-
15	Community Ophthalmology	2hrs	4hrs	2hrs
16	Miscellaneous	3hrs	6hrs	
Total		**30hrs**	**50hrs**	**20hrs**
AETCOM		**5hrs**		

Topics for theory classes in MBBS Phase III Part-I

Sl. No	Topics
1	Theory: OP 1.1 Theory: Anatomy of Eye & physiology of vision
2	Theory: OP 1.2 Refractive Errors
3	Theory: OP 2.1 Diseases of Lids
4	Theory : OP 2.4 Diseases of Orbit
5	Theory : OP 2.4 Diseases of Orbit
6	Theory: OP 2.1 Diseases of Lacrimal Apparatus
7	Theory: OP 2.1 Diseases of Lacrimal Apparatus
8	Theory: OP 3.3, 3.4 Conjunctivitis including Trachoma
9	Theory: OP 3.5, 3.6 Vernal Catarrh, Pterygium
10	Theory: OP 9.5 Ocular Trauma
11	Theory: OP 4.1, 4.2 & 4.3 Diseases of Cornea
12	Theory: OP 4.4, 4.5, 4.6 & 4.7 Diseases of Cornea
13	Theory: OP 5.1, 5.2 Diseases of Sclera
14	Theory: OP 6.1, 6.2, 6.3 Diseases of Iris
15	Theory: OP 6.4, 6.5, 6.6 Diseases of Anterior Chamber
16	Theory: OP 6.7 Glaucoma
17	Theory: OP 6.7 Glaucoma
18	Theory: OP 7.1, 7.2 Diseases of Lens
19	Theory: OP 7.1, 7.2 Diseases of Lens
20	Theory: OP 8.1, 8.2, 8.4 Diseases of Retina & Vitreous
21	Theory: OP 8.1, 8.2, 8.4 Diseases of Retina & Vitreous
22	Theory: OP 8.5 Neuro-Ophthalmology
23	Theory: OP 8.5 Neuro-Ophthalmology
24	Theory: OP 9.2 Strabismus
25	Theory: OP 9.2 Strabismus
26	Theory: OP 9.3 Ophthalmic Evaluation in a case of headache
27	Theory: OP 9.4 Community Ophthalmology
28	Theory: OP 9.4 Community Ophthalmology
29	Theory: OP 1.4 Ocular Surgeries
30	Theory: Lasers in Ophthalmology

Topics for SGT / Tutorial / Seminar in MBBS Phase III Part-I.

Each session will be 02 hours.

Sl. No.	Topics
1	Tutorial: OP 1.1 Anatomy of Eye & Physiology of Vision (Integration with Physiology)
2	Tutorial: OP 1.2 Refractive Errors
3	Tutorial: OP 2.1 Diseases of Lids
4	Tutorial: OP 2.6 Proptosis
5	Tutorial: OP 2.7 Orbital Tumors (PA36.1 Integration with Pathology)
6	Tutorial: OP 2.1 Diseases of Lacrimal Apparatus
7	Tutorial: Ocular Anatomy & Cranial Nerve (AN30.5/31.3/31.5/41.1/41.2/41.3) (Integration with Anatomy)
8	Tutorial: OP 3.3, 3.4 Conjunctivitis including Trachoma
9	Tutorial: OP 3.5, 3.6 Vernal Catarrh, Pterygium
10	Tutorial : OP 9.5 Ocular Trauma
11	Tutorial : OP 4.1, 4.2 & 4.3 Diseases of Cornea
12	Tutorial : OP 4.4, 4.5, 4.6 & 4.7 Diseases of Cornea
13	Tutorial : Refractive Surgeries
14	Tutorial : OP 9.4 Community Ophthalmology
15	Tutorial: SGD Ocular Pharmacology PH 1.58 (Integration with Pharmacology)
16	Tutorial: OP 6.1, 6.2, 6.3, 6.4, 6.5, 6.6 Diseases of Iris & Anterior Chamber
17	Tutorial: OP 6.7 Glaucoma
18	Tutorial: OP 6.7 Glaucoma
19	Tutorial: OP 7.1, 7.2 Diseases of Lens
20	Tutorial: OP 7.1, 7.2 Diseases of Lens
21	Tutorial: IM 24.15 Geriatric Ophthalmology (Integration with Geriatric Medicine)
22	Tutorial: Diseases of Retina & Vitreous (Integration with Medicine)
23	Tutorial: Diseases of Retina & Vitreous (Integration with Medicine)
24	Tutorial: OP 8.5 Pupillary Reflexes assessment
25	Tutorial: OP 9.2 Squint Examination

Topics for SDL in MBBS Phase III Part-I. Each session will be 02 hours.

Sl. No.	Topics
1	OP 1.2 Subjective Refraction
2	OP 2.8 Orbital Tumors Radiology
3	OP 2.2 Syringing & Probing
4	OP 4.9 Eye Banking
5	OP 6.7 Glaucoma Diagnosis
6	OP 7.4 Cataract Pre-operative workups
7	OP 8.1 Direct Ophthalmoscopy
8	OP 8.2 Indirect Ophthalmoscopy
9	OP 7.5 Camp Organization
10	OP 9.5 Ocular Trauma

ASSESSMENT FOR UNDERGRADUATES (MBBS III PHASE PART-I)

- 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.
- 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. The log book shall also include records of outpatients assigned.
- Submission of the log book/ case record to the department is required for eligibility to appear for the final examination of the subject.

ELIGIBILITY FOR EXAMINATION

1. There shall be a minimum of 75% attendance in theory & 80% in Practical / Clinical for eligibility to appear for the examination.
2. Learners must secure at least 50% marks of the total marks (combined in theory & Practical / Clinical; not less than 40% marks in theory & Practical separately) for internal assessment. To be eligible for appearing at the final university Examination.
3. Learners must have completed the required certifiable competencies for third phase training and completed the log book to be eligible for appearing at the final university examination.
4. 75% attendance in Professional Development Programme (AETCOM Module) shall be mandatory for eligibility to appear for final examination.

INTERNAL ASSESSMENT

Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process including assignments, preparation for seminar, clinical case presentation, preparation of clinical case for discussion, clinical case study/ problem solving exercise, participation in project for health care in the community. Internal assessment shall not be added to summative assessment. However, internal assessment should be displayed under a separate column in detailed marks card.

THEORY IA: The final cumulative IA is out of 100 for theory and practical each for Ophthalmology. Regular periodic examinations shall be conducted throughout the course. There shall be two theory internal assessment examinations in Phase III Part I, each for 50 marks. A preliminary theory examination for 100 marks will be conducted 2 months prior to scheduled final examination. The final IA marks out of 100 will be an aggregate of all three examinations.

PRACTICAL IA: An end of posting clinical assessment shall be conducted for each clinical posting in each professional year. Practical IA in ophthalmology is divided as 25 marks in phase II and 75 marks in Phase III part 1 totaling to 100 marks.
Day to day records and log book (including required skill certifications) will be given importance in internal assessment. Internal assessment will be based on competencies and skills. The detailed breakup of marks in internal assessment as follows.

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(DEEMED TO BE UNIVERSITY)
Declared as Deemed to be University u/s 3 of UGC Act, 1956
The Constituent College
SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, VIJAYAPURA

Faculty: III MBBS	Year / Phase- II & III Part I	Date:

DEPARTMENT OF OPHTHALMOLOGY

Sl. No	Roll No	Name of the student	Theory internal Assessment			Average	Internal Assessment Practical							Total Practical IA Marks
							Phase-II Ward Leaving Test	Phase III-Part-I						
			1st IA	2nd IA	Prelims			Ward Leaving Test	OSCE	Seminar	Log Book	Theory Attendance	AETCOM Competencies	
			50	50	100	100	25	30	10	05	10	10	10	100

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) for internal assessment 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 will be displayed on the notice board within one week of the test. Remedial classes will be conducted

for students who are either not able to score qualifying marks or have missed some assessments due to any reason.

University Examination:

University examination will be held at MBBS Phase III part-I.

University examinations are 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.

Nature of questions shall include different types such as structured assays (Long-Answer Questions -LAQ), Short-Answer Questions (SAQ) and objective type questions (e.g. Multiple Choice Questions - MCQ). Marks for each part shall be indicated separately. MCQs shall be accorded a weightage of 20% of the total theory marks. Practical /clinical examinations shall be conducted in the hospital wards. The objective will be to assess proficiency and skills to conduct experiments, interpret data and form logical conclusion. Clinical cases kept in the examination will be 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 discouraged. Emphasis will 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 will assess approach to patient management, emergencies, and attitudinal, ethical and professional values. Candidate's skill in interpretation of common investigative data, identification of specimens, OCT, Perimetry, etc. is to be assessed.

Scheme of Examination

Theory Examination: 100 marks /3 hours paper consists of following:

1. Structured Long Essay Questions(SLEQ) =2×10 marks each =20 marks
2. Short Essay Questions(SEQ) =6×5 marks each = 30marks
3. Short Answer Questions(SAQ) = 10×3 marks each =30marks
4. Multiple Choice Questions(MCQ) =20×1mark each=20 Marks

At least one question shall test the knowledge, and competencies acquired during the professional development programme (AETCOM module).

Practical Examination [Total 100 Marks]

Consisting of

a) 2 Long cases (2×30marks=60marks)

b) Viva: 20 Marks including

i. Surgical instruments

ii. Ocular Therapeutics

iii. Optics including Trail lenses, Spectacles, Optical Instruments

iv. Specimens, Imaging, Ophthalmic Advanced investigations, others.

All the four examiners will take table viva with above inclusions separately. Each table has 5 Marks with a total of 20 marks.

a) OSCE (4x5 Marks = 20 Marks)

4 OSCE stations will be organized. Every station has 5 marks with pre-designated marks distribution.

Skills competencies acquired during the Professional Development Programme (AETCOM module) shall be tested during clinical, practical and viva.

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(DEEMED TO BE UNIVERSITY)

Declared as Deemed to be University u/s 3 of UGC Act, 1956

The Constituent College

SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, VIJAYAPURA

Faculty: III MBBS	Year / Phase- III Part I	Date:

DEPARTMENT OF OPHTHALMOLOGY

Practical Marks List

Sl. No.	Roll No	Long Case No-1	Long Case No-2	Viva 20 Marks				OSCE 20 Marks				Total Practical Marks
				Surgical Instruments	Ocular therapeutics	Optics	Specimen, Imaging, Others	Station-1	Station-2	Station-3	Station-4	
		30 Marks	30 Marks	5 Marks	5 Marks	5 Marks	5 Marks	5 Marks	5 Marks	5 Marks	5 Marks	100 Marks

Blue Printing: The distribution of topics and weightage of marks for University examination is as under.

Sl. No	Topic	Competency	Weightage	Q
01	Visual Acuity Assessment	1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7	4 Marks	1 MCQ 1 SAQ
02	Eye Lids	2.1, 2.2, 2.3, 2.4, 2.5	4 Marks	1 MCQ 1 SAQ
03	Orbit	3.1, 3.2, 3.3, 3.4, 3.5, 3.6	6 Marks	1 MCQ 1 SEQ
04	Lacrimal system	4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9	6 Marks	1 MCQ 1 SEQ
05	Conjunctiva	5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10	4 Marks	1 MCQ 1 SAQ
06	Cornea	6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13	6 Marks	1 MCQ 1 SEQ
07	Sclera	7.1, 7.2, 7.3	4 Marks	1 MCQ 1 SAQ
08	Iris & Anterior chamber	8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9	9 Marks	1 MCQ 1 SEQ 1 SAQ
09	Glaucoma	9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 9.11, 9.12	11 Marks	1 MCQ 1SLEQ
10	Lens	10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 10.10, 10.11, 10.12	5 Marks	2 MCQ 1 SAQ
11	Retina & Vitreous	11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 11.8, 11.9	14 Marks	1 MCQ 1 SAQ 1 SLEQ
12	Neuro ophthalmology	12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9	6 Marks	1 MCQ 1 SEQ
13	Squint	13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.8	6 Marks	1 MCQ 1 SEQ
14	Community Ophthalmology	14.1, 14.2, 14.3, 14.4	5 Marks	2 MCQ 1 SAQ
15	Ocular Trauma	15.1, 15.2, 15.3, 15.4, 15.5, 15.6, 15.7	5 Marks	2 MCQ 1 SAQ
16	Miscellaneous	16.1, 16.2, 16.3, 16.4, 16.5, 16.6, 16.7, 16.8,16.9, 16.10	5 Marks	2 MCQ 1 SAQ

TEXT BOOKS OF OPHTHALMOLOGY

1. Parsons Disease of the eye, 22nd Ed 2015 Revised by Dr. Ramanji Sihoti and Radhika Tandon, Published by Butterworth – Heinemann, Elsevier.
2. Comprehensive Ophthalmology by A K Khurana, 6thEd 2015 published by Jaypee Brothers Medical Publishers
3. Clinical ophthalmology A systemic approach by Kanski, 8th Ed 2016 Published by Elsevier.
4. Text book of Ophthalmology by NEMA 6th edition.

Department of ENT [OTORHINOLARYNGOLOGY]

Curriculum: MBBS Phase III/I

Goal:

Graduate capable of delivering effective first contact Otolaryngological care.

Objectives:

Knowledge:

At the end of the course, the student shall be able to:

1. Should be competent to diagnose and describe management of common Otolaryngological diseases including emergencies.
2. Understand, describe and apply the knowledge of fluid and electrolyte therapy.
3. Describe indications of blood transfusion, apply it and manage complications.
4. Understand and describe principles of asepsis, disinfection and sterilization, take up rational drug therapy and appropriate use of antibiotics in Otolaryngological conditions.
5. Develop basic awareness and detect common Head and Neck malignancies in the country, understand principles of management and prevention.
6. Enumerate different types of anesthetic agents, their indications, uses contraindications and side effects.
7. Commitment to advancement of quality and patient safety in otolaryngological practice.
8. Understand the nature of the natural calamities and disasters, be an effective team leader or member and deliver appropriate health care during emergencies.

Skills:

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

1. Examine and diagnose common Otolayngological conditions.
2. Plan for various tests and their interpretation.
3. Resuscitate and manage air-way, and critically injured Patients with cardio-respiratory failure.
4. Acquire knowledge of basic principles of operative surgery, including per operative procedures and manage patients in postoperative period.
5. Diagnose neonatal and paediatric airway emergencies and provide sound primary care before referring the patient to secondary/tertiary centres

6. Identify congenital anomalies of Head and neck and refer them for appropriate management.
7. In addition to the skills referred above in items he shall have observed/assisted/ performed the following during internship:
    a) Incision and drainage of abscess
    b) Debridement and suturing of open wounds Venesection/I.V.line insertion
    c) Nasogastric intubation
    d) Diagnostic Endoscopy
    e) Endotracheal intubation
    f) Tracheostomy and cricothyroidotomy

Affector Domain:

1. Understand and follow ethical approach in management of otolaryngological conditions.
2. Counsel and guide the patients regarding need, options, advantages and disadvantage of common otolaryngological procedures.
3. Develop overall humane approach in management of terminal care for needy patients.
4. Co-ordinate and organize needful services at the time of natural disasters and mass casualties.
5. Work in tandem with National and State level health care policies.
6. Understand and follow medico legal aspects in otolaryngological care.
7. Develop Ability to administer informed consent and counsel patient prior to otolaryngological procedures.

Integration:

The teaching should be aligned and integrated horizontally and vertically in order to provide a sound biologic basis and a holistic approach to the care of the otolaryngological patient.

The undergraduate teaching in Otolaryngological shall be integrated to various stages with preclinical, para clinical and other clinical departments.

Topic: Anatomy and Physiology of ear, nose, throat, head & neck		Number of competencies: (02)		Number of procedures that require certification:(NIL)					
EN1.1	Describe the Anatomy & physiology of ear, nose, throat, head & neck A. 6th &7th term Students B C. Discuss the anatomy of the middle and inner ear. Describe the anatomy of nose and NS. Enumerate the anatomy of walders ring. Discuss the anatomy of larynx. C Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		Human Anatomy	
EN1.2	Describe the pathophysiology of common diseases in ENT A 6th &7th term Students B&C Discuss pathophysiology of allergic rhinitis and nasal polyps. Classify CSOM and its complications. Enumerate benign lesions of larynx D Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		Pathology	
Topic: Clinical Skills		**Number of competencies: (15)**		**Number of procedures that require certification : (NIL)**					
EN2.1	Elicit document and present an appropriate history in a patient presenting with an ENT complaint A 6th & 7th term B &C Elicit a patient's history who complaints of ear discharge, recurrent sore throat and nasal bleed. D Correctly	K/S/A/C	SH	Y	Lecture, Small group discussion, Demonstration	Skill assessment			
EN2.2	Demonstrate the correct use of a headlamp in the examination of the ear, nose and throat A Demonstrate the correct use of a head lamp in the examination of ear, nose and throat. B &C Perform independently use of head lamp for examination of the oral cavity throat and tympanic membrane. D Accurately	S	SH	Y	DOAP session	Skill assessment/ OSCE			

EN2.3	Demonstrate the correct technique of examination of the ear including Otoscopy A 6TH &7th term Students B &C Perform independently examination of the ear with head lamp and otoscopy. Identify findings of the tympanic membrane. D Correctly	K/S/A	SH	Y	DOAP session, Bedside clinic	Skill assessment/ OSCE			
EN2.4	Demonstrate the correct technique of performance and interpret tuning fork tests A 6th &7th term Students B &C Interpret the technique and findings of tuning fork tests. D Accurately	K/S/A	SH	Y	DOAP session, Bedside clinic	Skill assessment/ OSCE			
EN2.5	Demonstrate the correct technique of examination of the nose & paranasal sinuses including the use of nasal speculum A 6TH &7th term Students B &C Enlist the findings of anterior rhinoscopy Elicit the tenderness of all the PNS D Correctly	S	SH	Y	DOAP session, Bedside clinic	Skill assessment/ OSCE			
EN2.6	Demonstrate the correct technique of examining the throat including the use of a tongue depressor A 6th &7th term Students B &C Elicit the findings of oropharynx with a tongue depressor. D Accurately	S	SH	Y	DOAP session, Bedside clinic	Skill assessment/ OSCE			
EN2.7	Demonstrate the correct technique of examination of neck including elicitation of laryngeal crepitus A 6TH &7th term Students B &C Describe the findings in a case of goiter Demonstrate crepitus of larynx in post cricoids CA D Correctly	S	SH	Y	DOAP session, Bedside clinic	Skill assessment			

EN2.8	Demonstrate the correct technique to perform and interpret pure tone audiogram & impedance audiogram A 6TH &7th term Students B &C Record audiometry tests in a patient with deafness D Correctly	K/S	SH	Y	DOAP session, Bedside clinic	Skill assessment			
EN2.9	Choose correctly and interpret radiological, microbiological & histological investigations relevant to the ENT disorders A 6th &7th term Students B &C List the investigations for TB larynx. Enumerate the investigations for CSOM and nasal polyp. D Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment			
EN2.10	Identify and describe the use of common instruments used in ENT surgery A 6th &7th term Students B &C Enumerate instruments used in tonsillectomy and FESS surgery Interpret different lesions in oral cavity and differentiate between malignant and premalignant conditions. D Correctly	K	SH	Y	DOAP session, Bedside clinic	Skill assessment			
EN2.11	Describe and identify by clinical examination malignant & pre- malignant ENT diseases A 6th &7th term Students B &C Interpret different lesions in oral cavity and differentiate between malignant and premalignant conditions. D Correctly	K/S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN2.12	Counsel and administer informed consent to patients and their families in a simulated environment A 6th &7th term Students B &C Demonstrate understanding of the method of taking informed consent from patient and relatives in a patient posted for tracheostomy procedure. D Accurately	S/A/C	SH	Y	DOAP session, Bedside clinic	Skill assessment			

EN2.13	Identify, resuscitate and manage ENT emergencies in a simulated environment (including tracheostomy, anterior nasal packing, removal of foreign bodies in ear, nose, throat and upper respiratory tract) A 6th &7th term Students B &C Enumerate the emergencies in ENT and outline briefly the principles of management. List the steps in removal of foreign of the upper airway. D Correctly	K/S/A	SH	Y	DOAP session, Bedside clinic	Skill assessment			
EN2.14	Demonstrate the correct technique to instilling topical medications into the ear, nose and throat in a simulated environment A 6th &7th term Students B &C Counsel the patient regarding the method to install topical application of nasal and ear drops in a patient with allergic rhinitis and CSOM. D Accurately	K/S	SH	Y	DOAP session, Bedside clinic	Skill assessment/ OSCE			
EN2.15	Describe the national programs for prevention of deafness, cancer, noise & environmental pollution A 6th &7th term Students B &C Enumerate national programs for prevention of deafness and cancer. Enlist the steps taken to reduce noise and air pollution. D Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
Topic: Diagnostic and Therapeutic procedures in ENT		**Number of competencies: (06)**		**Number of procedures that require certification: (NIL)**					
EN3.1	Observe and describe the indications for and steps involved in the performance of Otomicroscopic examination in a simulated environment A 6th &7th term Students B &C Enumerate the indications for oto microscopy and demonstrate the steps in a case ASOM. . D Correctly	S	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce			

EN3.2	Observe and describe the indications for and steps involved in the performance of diagnostic nasal Endoscopy A 6th &7thterm Students B &C List the indications for DNE and steps involved in the procedure D Accurately	S	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
EN3.3	Observe and describe the indications for and steps involved in the performance of Rigid/Flexible Laryngoscopy A 6th &7th term Students B &C Discuss the indications for DL scopy and steps in performing the procedure D Correctly	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
EN3.4	Observe and describe the indications for and steps involved in the removal of foreign bodies from ear, nose & throat Objectives: A. III/I B. To explain the indications for and steps of the foreign body removal in ear , nose, throat C. Student is able to understand and describe indications and procedure for removal of ear, nose and throat foreign bodies. D. Accurately	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
EN3.5	Observe and describe the indications for and steps involved in the surgical procedures in ear, nose & throat Objectives: A. III/I B. To explain the indications for and steps of the surgical procedures in ear , nose and throat C. Student is able to understand and describe indications and surgical procedures in ear nose and throat D. Correctly	K	KH	N	Lecture, small group discussion, Demonstration	Written/ Viva voce			

EN3.6	Observe and describe the indications for and steps involved in the skills of emergency procedures in ear, nose & throat A. III/I B. To explain the indications for the emergencies procedures in ear , nose and throat C. Student is able to understand and describe indications and emergency surgical procedures in ear nose and throat D. Correctly	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
Topic: Management of diseases of ear, nose & throat		**Number of competencies: (53)**		**Number of procedures that require certification : (NIL)**					
EN4.1	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Otalgia. A. III/I B. Student is to present and document a case and describe clinical features investigations and management of otalgia C. Student is able to document and explain signs and symptoms and management of otalgia D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			
EN4.2	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of diseases of the external Ear A.III/I B. Student is to present and document about history, clinical features and management of diseases of external ear. C. Student is able to present and document about history, clinical features and management of diseases of external ear D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.3	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of ASOM. A.III/I B. Student is to present and document about history, clinical features and management of ASOM C. Student is able to present and document about history, clinical features and management of ASOM D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			
EN4.4	Demonstrate the correct technique to hold visualize and assess the mobility of the tympanic membrane and its mobility and interpret and diagrammatically represent the findings A.III/I B. Student is to know and demonstrate technique to hold, visualize and assess mobility of TM and draw the same. C. Student is able to demonstrate technique to hold, visualize and assess mobility of TM and draw representing the same. D. Correctly	K/S/A	SH	Y	Clinical, Demonstration	Written/ Viva voce/ Skill assessment			

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.5	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of OME. A.III/I B. Student is to know the history, clinical features, investigations and principles of management of OME. C. Student is able to demonstrate and explain the history, clinical features, investigations and principles of management of OME. D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			
EN4.6	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Discharging ear A.III/I B. Student is to know the history, clinical features, investigations and principles of management of discharging ear. C. Student is able to demonstrate and explain the history, clinical features, investigations and principles of management of discharging ear. D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			
EN4.7	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of CSOM A.III/I B. Student is to know the history, clinical features, investigations and principles of	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
	management of CSOM. C. Student is able to demonstrate and explain the history, clinical features, investigations and principles of management of CSOM. D. Correctly								
EN4.8	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of CSOM A.III/I B. Student is to know the history, clinical features, investigations and principles of management of squamosal type of CSOM. C. Student is able to demonstrate and explain the history, clinical features, investigations and principles of management of squamosal type CSOM. D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			
EN4.9	Demonstrate the correct technique for syringing wax from the ear in a simulated environment A.III/I B. Student is to know about technique of syringing wax from the ear C. Student is able to demonstrate the about technique of syringing wax from the ear D. Accurately	S	SH	Y	DOAP session	Skill assessment			
EN4.10	Observe and describe the indications for and steps involved in myringotomy and myringoplasty A.III/I B. Student is to know about indications for and steps involved in myringotomy and	S	KH	Y	DOAP session	Written/ Viva voce			

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
	myringoplasty C. Student is able to describe about indications for and steps involved in myringotomy and myringoplasty D. Accurately								
EN4.11	Enumerate the indications describe the steps and observe of mastoidectomy A.III/I B. Student is to know about indications for and steps involved in mastoidectomy C. Student is able to describe about indications for and steps involved in mastoidectomy D. Accurately	K/S	KH	Y	DOAP session	Written/ Viva voce			
EN4.12	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Hearing loss A.III/I B. Student is to know about correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Hearing loss C. Student is able to demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Hearing loss D. Accurately	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			

Number	COMPETENCY The student should be able to:	Domain K/S/A/ C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.13	Describe the clinical features, management investigations and principle of Otosclerosis A.III/I B. Student is to know about clinical features, management of Otosclerosis C. Student is able to describe the clinical features, choose the correct investigations and management of otosclerosis D. Correctly	K	KH	Y	Lecture, Small group discussion; Demonstration	Written/ Viva voce/ Skill assessment			
EN4.14	Describe the clinical features, investigations management and principle of Sudden Sensorineural Hearing Loss A.III/I B. Student is to know about clinical features, management of sudden sensorineural hearing loss C. Student is able to describe the clinical features, choose the correct investigations and management of sudden sensorineural hearing loss D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN4.15	Describe the clinical features, investigations management of Noise Induced Hearing Loss A.III/I B. Student is to know about clinical features, management of noise induced hearing loss C. Student is able to describe the clinical features, choose the correct investigations and management of noise induced hearing loss D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			

EN4.16	Observe and describe the indications for and steps involved in the performance of pure tone audiometry OBJECTIVES: A.III/I B. Student is to observe and know about the indications for and steps involved in the performance of pure tone audiometry C. Student is able to describe the indications for and steps involved in the performance of pure tone audiometry D. Correctly	S	KH	Y	DOAP session	Written/ Viva			
EN4.17	Enumerate the indications and interpret the results of an audiogram OBJECTIVES: A.III/I B. Student is to observe and know about the indications and derivation of results of pure tone audiogram C. Student is able to describe the indications for and steps involved in the performance of pure tone audiometry and interpret audiogram. D. Correctly	S	SH	Y	DOAP session	Skill assessment			
EN4.18	Describe the clinical features, investigations management of Facial Nerve palsy OBJECTIVES: A.III/I B. Student is to know about the clinical features, management of Facial Nerve palsy C. Student is able to describe the clinical features, management of Facial Nerve palsy D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			

EN4.19	Describe the clinical features, investigations management of Vertigo OBJECTIVES: A.III/I B. Student is to know about the clinical features, management of vertigo C. Student is able to describe the clinical features, management of vertigo D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN4.20	Describe the clinical features, investigations management of Meniere's Disease A.III/I B. Student is to know about the clinical features, management of Meniere's Disease C. Student is able to describe the clinical features, management of Meniere's Disease D. Correctly	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN4.21	Describe the clinical features, investigations management of Tinnitus A.III/I B. Student is to know about the clinical features, management of tinnitus C. Student is able to describe the clinical features, management of tinnitus D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			

Number	COMPETENCY The student should be able to:	Domain K/S/A/ C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.22	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Nasal Obstruction A.III/I B. Student is to know how to elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Nasal Obstruction C. Student is able to elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Nasal Obstruction D. Correctly	K/S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN4.23	Describe the clinical features, investigations and principles of management of DNS A.III/I B. Student is to know about the clinical features, management of DNS C. Student is able to describe the clinical features, management of DNS D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			

Number	COMPETENCY The student should be able to:	Domain K/S/A/ C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.24	Enumerate the indications observe and describe the septoplasty A.III/I B. Student is to know about the INDICATIONS OF SEPTOPLASTY C. Student SHOULD OBSERVE AND BE able to describe SEPTOPLASTY D. Correctly	S	KH	Y	DOAP session	Written/ Viva voce			
EN4.25	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Nasal Polyps A.III/I B. Student is to know how to Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Nasal Polyps C. Student is able to Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Nasal Polyps D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			
EN4.26	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Adenoids A.III/I	K/S	SH	Y	Lecture, Small group discussion, DOAP session,	Written/ Viva voce/ Skill assessment			

Number	COMPETENCY The student should be able to:	Domain K/S/A/ C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
	B. Student is to know how to Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Adenoids C. Student is able TO Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Adenoids D. Correctly				Bedside clinic				
EN4.27	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Allergic Rhinitis A.III/I B. Student is to know how to Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Allergic Rhinitis C. Student is able to Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Allergic Rhinitis D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			

EN4.28	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Vasomotor Rhinitis A.III/I B. Student is to know how to Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Vasomotor Rhinitis C. Student is able to Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Vasomotor Rhinitis D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			
EN4.29	Elicit, document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Acute & Chronic Rhinitis A.III/I B. Student is to know how to Elicit, document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Acute & Chronic Rhinitis C. Student is able to Elicit, document and present a correct history, demonstrate and describe the clinical features, choose the	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
	correct investigations and describe the principles of management of squamosal type of Acute & Chronic Rhinitis D. Correctly								
EN4.30	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Epistaxis A.III/I B. Student is to know how to Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Epistaxis C. Student is able to Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Epistaxis D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			
EN4.31	Describe the clinical features, investigations and principles of management of trauma to the face & neck A.III/I B. Student is to know about the clinical features, investigations and principles of management of trauma to the face & neck C. Student is able to describe the clinical features, investigations and principles of management of trauma to the face & neck D. Correctly	K/S	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce			

EN4.32	Describe the clinical features, investigations and principles of management of nasopharyngeal Angiofibroma A.III/I B. Student is to know about the clinical features, investigations and principles of management of nasopharyngeal Angiofibroma C. Student is able to describe the clinical features, investigations and principles of management of nasopharyngeal Angiofibroma D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
EN4.33	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Acute & Chronic Sinusitis A.III/I B. Student is to know how to Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Acute & Chronic Sinusitis C. Student is able to Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Acute & Chronic Sinusitis D. Correctly	K/S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			

EN4.34	Describe the clinical features, investigations and principles of management of Tumors of Maxilla A.III/I B. Student is to know about the clinical features, investigations and principles of management of Tumors of Maxilla C. Student is able to describe the clinical features, investigations and principles of management of Tumors of Maxilla D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
EN4.35	Describe the clinical features, investigations and principles of management of Tumors of Nasopharynx A.III/I B. Student is to know about the clinical features, investigations and principles of management of Tumors of Nasopharynx C. Student is able to describe the clinical features, investigations and principles of management of Tumors of Nasopharynx D. Correctly	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN4.36	Describe the clinical features, investigations and principles of management of diseases of the Salivary glands A.III/I B. Student is to know about the clinical features, investigations and principles of management of diseases of the Salivary glands C. Student is able to describe the clinical features, investigations and principles of management of diseases of the Salivary glands D. Correctly	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			

EN4.37	Describe the clinical features, investigations and principles of management of Ludwig's angina A.III/I B. Student is to know about the clinical features, investigations and principles of management of Ludwig's angina C. Student is able to describe the clinical features, investigations and principles of management of Ludwig's angina D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN4.38	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of type of dysphagia A.III/I B. Student is to know how to Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of type of dysphagia C. Student is able to Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of type of dysphagia D. Correctly	K/S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN4.39	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of Acute & Chronic Tonsillitis OBJECTIVES: A.III/I B. Student is to know about the correct history clinical features, management off Acute & Chronic Tonsillitis C. Student is able to describe the clinical features, management of Acute & Chronic Tonsillitis D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			

EN4.40	Observe and describe the indications for and steps involved in a tonsillectomy / adenoidectomy OBJECTIVES: A.III/I B. Student is to know about indications for and steps involved in a tonsillectomy / adenoidectomy C. Student is able to Observe steps involved in a tonsillectomy / adenoidectomy D. Correctly	S	KH	Y	DOAP session	Written/ Viva voce			
EN4.41	Describe the clinical features, investigations and principles of management of Acute & chronic abscesses in relation to Pharynx OBJECTIVES: A.III/I B. Student is to know about the correct history clinical features, management of Acute & chronic abscesses in relation to Pharynx C. Student is able to describe the clinical features, management of Acute & chronic abscesses in relation to Pharynx D. Correctly	K/S	KH	Y	Lecture, Small group discussion Demonstration	Written/ Viva voce			
EN4.42	Elicit, document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of hoarseness of voice OBJECTIVES: A.III/I B. Student is to know about the history, clinical features, investigations and principles of management of hoarseness of voice C. Student is able to describe a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of hoarseness of voice D. Correctly	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			

EN4.43	Describe the clinical features, investigations and principles of management of Acute & Chronic Laryngitis OBJECTIVES: A.III/I B. Student is to know about the clinical features, investigations and principles of management of Acute & Chronic Laryngitis C. Student is able to describe the clinical features, investigations and principles of management of Acute & Chronic Laryngitis D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
EN4.44	Describe the clinical features, investigations and principles of management of Benign lesions of the vocal cord OBJECTIVES: A.III/I B. Student is to know about the clinical features, investigations and principles of management of Benign lesions of the vocal cord C. Student is able to describe the clinical features, investigations and principles of management of Benign lesions of the vocal cord D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
EN4.45	Describe the clinical features, investigations and principles of management of Vocal cord palsy OBJECTIVES: A.III/I B. Student is to know the clinical features, investigations and principles of management of Vocal cord palsy C. Student is able to describe the clinical features, investigations and principles of management of Vocal cord palsy D. Correctly	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			

EN4.46	Describe the clinical features, investigations and principles of management of Malignancy of the Larynx & Hypopharynx OBJECTIVES: A.III/I B. Student is to know about the clinical features, investigations and principles of management of Malignancy of the Larynx &Hypopharynx C. Student is able to describe the clinical features, investigations and principles of management of Malignancy of the Larynx & Hypopharynx D. Correctly	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN4.47	Describe the clinical features, investigations and principles of management of Stridor OBJECTIVES: A.III/I B. Student is to know about clinical features, investigations and principles of management of Stridor C. Student is able to describe clinical features, investigations and principles of management of Stridor D. Correctly	K	KH	Y	Lecture, Small group discussion Demonstration	Written/ Viva voce/ Skill assessment			
EN4.48	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Airway Emergencies OBJECTIVES: A.III/I B. Student is to know about the a history, e clinical features, investigations and principles of management of Airway Emergencies C. Student is able to describe the a history, demonstrate and describe the clinical features, investigations and describe the principles of management of Airway Emergencies D. Correctly	S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			

EN4.49	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of foreign bodies in the air & food passages OBJECTIVES: A.III/I B. Student is to know about a correct history, clinical features, investigations and principles of management of foreign bodies in the air & food passages C. Student is able to describe a correct history, the clinical features, investigations and principles of management of foreign bodies in the air & food passages D. Correctly	S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN4.50	Observe and describe the indications for and steps involved in tracheostomy OBJECTIVES: A.III/I B. Student is to know about the indications for and steps involved in tracheostomy C. Student is able to describe the indications for and steps involved in tracheostomy D. Correctly	S	KH	Y	DOAP session	Written/ Viva voce			
EN4.51	Observe and describe the care of the patient with a tracheostomy OBJECTIVES: A.III/I B. Student is to know about the care of the patient with a tracheostomy C. Student is able to describe the care of the patient with a tracheostomy D. Correctly	S	KH	Y	DOAP session	Written/ Viva voce			

EN4.52	Describe the Clinical features, Investigations and principles of management of diseases of Oesophagus OBJECTIVES: A.III/I B. Student is to know about Clinical features, Investigations and principles of management of diseases of Oesophagus C. Student is able to describe Clinical features, Investigations and principles of management of diseases of Oesophagus D. Correctly	K	ENT	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
EN4.53	Describe the clinical features, investigations and principles of management of HIV manifestations of the ENT OBJECTIVES: A.III/I B. Student is to know about the clinical features, investigations and principles of management of HIV manifestations of the ENT C. Student is able to describe the clinical features, investigations and principles of management of HIV manifestations of the ENT D. Correctly	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		General Medicine	
	Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. **Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation**								
Integration									
Human Anatomy									
AN36.1	Describe the (1) morphology, relations, blood supply and applied anatomy of palatine tonsil and (2) composition of soft palate OBJECTIVES: A.III/I B. Student is to know about the morphology, relations, blood supply and applied anatomy of palatine tonsil , composition of soft palate	K	KH	Y	Lecture	Written			

	C. Student is able to describe the morphology, relations, blood supply and applied anatomy of palatine tonsil , composition of soft palate D. Correctly								
AN36.2	Describe the components and functions of Waldeyer's lymphatic ring OBJECTIVES: A.III/I B. Student is to know about components and functions of Waldeyer's lymphatic ring C. Student should be able to describe components and functions of Waldeyer's lymphatic ring D. Correctly	K	KH	Y	Lecture	Written		ENT	
AN36.3	Describe the boundaries and clinical significance of pyriform fossa OBJECTIVES: A.III/I B. Student is to know about the boundaries and clinical significance of pyriform fossa C. Student should be able to describe the boundaries and clinical significance of pyriform fossa D. Correctly	K	KH	N	Lecture	Written		ENT	
AN36.4	Describe the anatomical basis of tonsilitis, tonsillectomy, adenoids and peri-tonsillar abscess OBJECTIVES: A.III/I B. Student is to know about the anatomical basis of tonsilitis, tonsillectomy, adenoids and peri-tonsillar abscess C. Student is able to describe the anatomical basis of tonsilitis, tonsillectomy, adenoids and peri-tonsillar abscess D. Correctly	K	KH	N	Lecture	Written		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN36.5	Describe the clinical significance of Killian's dehiscence Describe the clinical significance of Killian's dehiscence OBJECTIVES: A.III/I B. Student is to know about the clinical significance of Killian's dehiscence. C. Student is able to describe the clinical significance of Killian's dehiscence. D. Correctly	K	KH	N	Lecture	Written		ENT	
AN37.1	Describe & demonstrate features of nasal septum, lateral wall of nose, their blood supply and nerve supply Audience- III/I & III/II Behaviour and Condition- Development of septum, parts of septum, disorders of septum, turbinates and demonstration of various sinus opening, Littles Area and Woodruff plexus definition and identification, identification of spenopalatine foramen Degree-Good/Satisfactory/Bad	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment		ENT	
AN37.2	Describe location and functional anatomy of paranasal sinuses Audience- III/I & III/II Behaviour and Condition-Name of each sinus, bone in which the sinus is located, mucociliary clearance pathways of each sinus and disorders Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture	Written		ENT	
AN37.3	Describe anatomical basis of sinusitis & maxillary sinus tumours Audience- III/I & III/II Behaviour and Condition- Commonest cause of sinusitis, most commonly involved sinus, sinus drainage pathways, PNS tenderness elicitation, tumor origin and its etiology, spread of tumour involving various walls of maxillary sinus and locoregional spread(TNM), maxillectomy Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	

AN38.1	Describe the morphology, identify structure of the wall, nerve supply, blood supply and actions of intrinsic and extrinsic muscles of the larynx Audience- III/I & III/II Behaviour and Condition-Holding the larynx in anatomical position, demonstration of important surrounding structures and their relationship, identification of Superior and Recurrent laryngeal nerve and related structures, nomenclature of muscles with their origin, insertion and action. Degree-Good/Satisfactory/Bad	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment		ENT	
AN38.2	Describe the anatomical aspects of laryngitis Audience- III/I & III/II Behaviour and Condition-Development of larynx, Parts of larynx and its division, stridor and its anatomical implications, congenital anamoiies Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	
AN38.3	Describe anatomical basis of recurrent laryngeal nerve injury Audience- III/I & III/II Behaviour and Condition- Origin of nerve(Branching from Vagus), Descent of nerve and its relation to important structures, Variations in branching, muscles supplied, Lesions, Commonest causes of injury. Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	
AN39.2	Explain the anatomical basis of hypoglossal nerve palsy Audience- III/I & III/II Behaviour and Condition- Orgin of nerve , Course of nerve intracranial and extra cranial, structures around the nerve along its course, Lesions and its presentation Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN40.1	Describe & identify the parts, blood supply and nerve supply of external ear Audience- III/I & III/II Behaviour and Condition- Developmental anatomy of external ear, Identification of structures, Degree-Good/Satisfactory/Bad	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment		ENT	
AN40.2	Describe & demonstrate the boundaries, contents, relations and functional anatomy of middle ear and auditory tube Audience- III/I & III/II Behaviour and Condition- Defining the boundaries and their contents, role of ossicles in hearing, mucosal folds in middle ear, ventilation pathways of middle ear and their importance in relation to spread of cholesteatoma., parts of auditory tube, differences between infant and adult auditory tube, tests for eustachian tube patency Degree-Good/Satisfactory/Bad	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment		ENT	
AN40.3	Describe the features of internal ear Audience- III/I & III/II Behavior and Condition-Development of inner ear, Structure and function of vestibule and cochlea, Fluid mechanics in inner ear, Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	
AN40.4	Explain anatomical basis of otitis externa and otitis media Audience- III/I & III/II Behaviour and Condition- Location of disease and presentation of the disease, examination of ear, Three point tenderness demonstration, management protocols. Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	

AN40.5	Explain anatomical basis of myringotomy Audience- III/I & III/II Behaviour and Condition- Normal anatomy of tympanic membrane, indications for myringotomy, consent, performance of procedure, placement of incision/grommet, complication associated, desired results. Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	
Physiology									
PY10.13	Describe and discuss perception of smell and taste sensation Audience- III/I & III/II Behaviour and Condition- Pathway of taste and smell, synergies of both the special senses, structures involved, evaluation of taste and smell perception, abnormalities of taste and smell Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture, Small group discussion	Written /Viva voce		ENT	
PY10.15	Describe and discuss functional anatomy of ear and auditory pathways & physiology of hearing Audience- III/I & III/II Behaviour and Condition- Involvement of external, middle and inner ear and their importance, Tracing of the auditory pathway, Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture, Small group discussion	Written/Viva voce		ENT	
PY10.16	Describe and discuss pathophysiology of deafness. Describe hearing tests Audience- III/I & III/II Behaviour and Condition- Congenital and acquired causes, Types of deafness, Subjective and objective tests to identify the cause and site of lesion, Ruling out malingering Degree-Good/Satisfactory/ Bad	K	KH	Y	Lecture, Small group discussion	Written/Viva voce		ENT	

PY10.20	Demonstrate (i) hearing (ii) testing for smell and (iii) taste sensation in volunteer/ simulated environment Audience- III/I & III/II Behaviour and Condition- Items required for these tests, counselling the volunteer about the test and obtaining consent for the same, demonstration of the tests and fallacies associated with each Degree-Good/Satisfactory/Bad	S	P	Y	DOAP sessions	Skill assessment/ Viva voce	1 each x 3	ENT, Ophthalmology	
Community Medicine									
CM3.1	Describe the health hazards of air, water, noise, radiation and pollution. Audience- III/I & III/II Behavior and Condition- Burden on the state, Enumerate the health hazards caused by air, radiation, water borne infection and noise., Preventive measures and counter measures to be taken, global warming. Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture, small group discussion	Written/ Viva voce		General Medicine, ENT	
Dentistry									
DE4.1	Discuss the prevalence of oral cancer and enumerate the common types of cancer that can affect tissues of the oral cavity Audience- III/I & III/II Behaviour and Condition- Brief anatomy of oral cavity, Oncological classification of various sites and subsites in oral cavity and their relevance, Histology of oral cavity, TNM staging of oral cavity malignanacies, classification of various types of malignancies Degree-Good/Satisfactory/Bad	K	K	N	Lecture	Viva voce		Pathology	ENT

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DE4.2	Discuss the role of etiological factors in the formation of precancerous /cancerous lesions Audience- III/I & III/II Behaviour and Condition-Enumeration of various etiological factors and the carcinogenesis, incidence of precancerous/cancerous with each agent, Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture, Small group discussion	Viva voce		Pathology	ENT
DE4.3	Identify potential pre-cancerous /cancerous lesions Audience- III/I & III/II Behaviour and Condition-Enumerate the precancerous/cancerous lesions,Careful history taking to rule out/in presence of etiological features. Degree-Good/Satisfactory/Bad	S	SH	N	Observation, Bed side clinics	Skill assessment		Pathology	ENT
DE4.4	Counsel patients to risks of oral cancer with respect to tobacco, smoking, alcohol and other causative factors Audience- III/I & III/II Behaviour and Condition- Degree-	A/C	SH	Y	DOAP session	Document in Log book	2	Pathology	ENT

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
General Medicine									
IM24.17	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly Audience : MBBS III/I Condition &Behaviour : The student must know the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			ENT
Pediatrics									
PE14.2	Discuss the risk factors, clinical features, Diagnosis and management of Kerosene ingestion Audience : MBBS III/I Condition & Behaviour: The student should know the risk factors, clinical features, Diagnosis and management of Kerosene ingestion Degree : Accurately	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE28.1	Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis Audience : MBBS III/I Condition & Behaviour: The student should know the etio-pathogenesis, clinical features and management of Naso pharyngitis Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.2	Discuss the etio-pathogenesis of Pharyngo Tonsillitis Audience:MBBS III/I Condition &Behaviour :The student should know the etio-pathogenesis of Pharyngo Tonsillitis Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.3	Discuss the clinical features and management of Pharyngo Tonsillitis Audience : MBBS III/I Condition & Behaviour : The student should know the clinical features and management of Pharyngo Tonsillitis Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE28.4	Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM) Audience : MBBS III/I Condition &Behaviour : The student should know the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM) Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.5	Discuss the etio-pathogenesis, clinical features and management of Epiglottitis Audience : MBBS III/I Condition & Behaviour : The student should know the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.6	Discuss the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis Audience : MBBS III/I Condition & Behaviour: The student should know the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE28.7	Discuss the etiology, clinical features and management of Stridor in children Audience : MBBS III/I Condition & Behaviour: The student should know the etiology, clinical features and management of Stridor in children Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.8	Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children Audience : MBBS III/I Condition & Behaviour: The student should know the types, clinical presentation, and management of foreign body aspiration in infants and children Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.9	Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor Audience : MBBS III/I Condition & Behaviour: The student must be able to elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor Degree : Accurately	S	SH	Y	Bedside clinics, skill lab	Skill Assessment		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE28.10	Perform otoscopic examination of the ear	S	SH	Y	DOAP session	Skill Assessment		ENT	
PE28.11	Perform throat examination using tongue depressor	S	SH	Y	DOAP session	Skill Assessment		ENT	
PE28.12	Perform examination of the nose Audience : MBBS III/I Condition & Behaviour: The student must be able to perform examination of the nose Degree : Accurately	S	P	Y	DOAP session	Skill Assessment		ENT	
PE28.17	Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management. Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays Audience : MBBS III/I Condition & Behaviour: The student must be able to Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management. Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays Degree : Accurately	S	P	Y	Bedside clinics, Small group discussion	Skills Assessment	3	ENT, Radio diagnosis	

PE31.1	Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children Audience : MBBS III/I Condition & Behaviour: The student must be able to Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children Degree : Accurately	K	KH	Y	Lecture Small group discussion	Written/ Viva voce		ENT	
PE31.3	Describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in children Audience : MBBS III/I Condition &Behaviour : The student must be able to describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in children Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
General Surgery									
SU20.1	Describe etiopathogenesis of oral cancer, symptoms and signs of pharyngeal cancer. Enumerate the appropriate investigations and discuss the principles of treatment. Audience: MBBS III/I Condition & Behaviour: The student must be able to Describe etiopathogenesis of oral cancer, symptoms and signs of pharyngeal cancer. Enumerate the appropriate investigations and discuss the principles of treatment. Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	

Attitude, Ethics and Communication Module (AETCOM)

Module 3.3: The foundations of communication – 4

Background

Communication is a fundamental prerequisite of the medical profession and beside skills is crucial in ensuring professional success for doctors. This module continues to provide an emphasis on effective communication skills. The emphasis is on administering informed consent during professional year III.

Competencies addressed

The student should be able to:	Level
1. Demonstrate ability to communicate to patients in a patient, respectful, non- threatening, non-judgmental and empathetic manner	SH
2. Identify, discuss and defend, medico-legal, socio-cultural and ethical issues as they pertain to consent for surgical procedures	KH
3. Administer informed consent and appropriately address patient queries to a patient undergoing a surgical procedure in a simulated environment	SH

Learning Experience

Year of study: Professional year 3

Hours: 5 (1 + 2 +2)

i. Introductory small group session - 1 hour
ii. Focused small group session - 2 hours
iii. Skills Lab session - 2 hour

Contents:

1. Introductory small group session on the principles of communication with focus on administering informed consent.
2. Focused small group session with role play or video where students have an opportunity to observe, criticize and discuss common mistakes in administering informed consent.
3. Skill lab session where students can perform tasks on standardized or regular patients with opportunity for self-critique, critique by patient and by facilitator.

Assessment

1. **Formative:** Participation in session 2 and performance in session 3 may be used as part of formative assessment.
2. **Summative:** A skill station in which the student may administer informed consent to a standardized patient.

Resources:

1. Makoul G. Essential elements of communication in medical encounters: the Kalamazoo consensus statement. Acad Med. 2001; Apr; 76(4): 390-3.
2. Hausberg M. Enhancing medical students' communication skills: development and evaluation of an undergraduate training program. BMC Medical Education 2012; 12:16.

CLINICAL TEACHING DURING POSTINGS

Subject	Period of training in Weeks		Total Weeks
	MBBS Phase-II	MBBS Phase-III Part-I	
Otorhinolaryngology	04	04	08

- DOAP Sessions will be conducted for Phase II
- Bedside Clinical will be conducted for Phase III Part-I

TEACHING SCHEDULE AND HOURS ALLOTTED

MBBS Phase III Part-I

AETCOM	Lectures 30 Classes of 1 Hour Each	Tutorials / Small Group Discussion/ Seminars 25 Sessions of 2 Hours Each	SDL 10 Sessions of 2 Hours Each
5hrs	30hrs	50hrs	20hrs

	Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation								
Integration									
Human Anatomy									
AN36.1	Describe the (1) morphology, relations, blood supply and applied anatomy of palatine tonsil and (2) composition of soft palate OBJECTIVES: A.III/I B. Student is to know about the morphology, relations, blood supply and applied anatomy of palatine tonsil , composition of soft palate C. Student is able to describe the morphology, relations, blood supply and applied anatomy of palatine tonsil , composition of soft palate D. Correctly	K	KH	Y	Lecture	Written		ENT	

AN36.2	Describe the components and functions of waldeyer's lymphatic ring OBJECTIVES: A.III/I B. Student is to know about components and functions of waldeyer's lymphatic ring C. Student is able to describe components and functions of waldeyer's lymphatic ring D. Correctly	K	KH	Y	Lecture	Written		ENT	
AN36.3	Describe the boundaries and clinical significance of pyriform fossa OBJECTIVES: A.III/I B. Student is to know about the boundaries and clinical significance of pyriform fossa C. Student is able to describe the boundaries and clinical significance of pyriform fossa D. Correctly	K	KH	N	Lecture	Written		ENT	
AN36.4	Describe the anatomical basis of tonsilitis, tonsillectomy, adenoids and peri-tonsillar abscess OBJECTIVES: A.III/I B. Student is to know about the anatomical basis of tonsilitis, tonsillectomy, adenoids and peri-tonsillar abscess C. Student is able to describe the the anatomical basis of tonsilitis, tonsillectomy, adenoids and peri-tonsillar abscess D. Correctly	K	KH	N	Lecture	Written		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN36.5	Describe the clinical significance of Killian's dehiscence Describe the clinical significance of Killian's dehiscence OBJECTIVES: A.III/I B. Student is to know about the clinical significance of Killian's dehiscence. C. Student is able to describe the clinical significance of Killian's dehiscence. D. Correctly	K	KH	N	Lecture	Written		ENT	
AN37.1	Describe & demonstrate features of nasal septum, lateral wall of nose, their blood supply and nerve supply Audience- III/I & III/II Behaviour and Condition- Development of septum, parts of septum, disorders of septum, turbinates and demonstration of various sinus opening, Littles Area and Woodruff plexus definition and identification, identification of spenopalatine foramen Degree-Good/Satisfactory/Bad	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment		ENT	

AN37.2	Describe location and functional anatomy of paranasal sinuses Audience- III/I & III/II Behaviour and Condition-Name of each sinus, bone in which the sinus is located, mucociliary clearance pathways of each sinus and disorders Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture	Written		ENT	
AN37.3	Describe anatomical basis of sinusitis & maxillary sinus tumours Audience- III/I & III/II Behaviour and Condition-Commonest cause of sinusitis, most commonly involved sinus, sinus drainage pathways, PNS tenderness elicitation, tumor origin and its etiology, spread of tumour involving various walls of maxillary sinus and locoregional spread(TNM), maxillectomy Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	
AN38.1	Describe the morphology, identify structure of the wall, nerve supply, blood supply and actions of intrinsic and extrinsic muscles of the larynx Audience- III/I & III/II Behaviour and Condition-Holding the larynx in anatomical position, demonstration of important surrounding structures and their relationship, identification of	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment		ENT	

	Superior and Recurrent laryngeal nerve and related structures, nomenclature of muscles with their origin, insertion and action. Degree-Good/Satisfactory/Bad								
AN38.2	Describe the anatomical aspects of laryngitis Audience- III/I & III/II Behaviour and Condition- Development of larynx, Parts of larynx and its division, stridor and its anatomical implications, congenital anamoiies Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	
AN38.3	Describe anatomical basis of recurrent laryngeal nerve injury Audience- III/I & III/II Behaviour and Condition- Origin of nerve(Branching from Vagus), Descent of nerve and its relation to important structures, Variations in branching, muscles supplied, Lesions, Commonest causes of injury. Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	
AN39.2	Explain the anatomical basis of hypoglossal nerve palsy Audience- III/I & III/II Behaviour and Condition- Orgin of nerve , Course of nerve intracranial and extra cranial, structures around the nerve along its course, Lesions and its presentation Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	

AN40.1	Describe & identify the parts, blood supply and nerve supply of external ear Audience- III/I & III/II Behaviour and Condition- Developmental anatomy of external ear, Identification of structures, Degree-Good/Satisfactory/Bad	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment		ENT	
AN40.2	Describe & demonstrate the boundaries, contents, relations and functional anatomy of middle ear and auditory tube Audience- III/I & III/II Behaviour and Condition- Defining the boundaries and their contents, role of ossicles in hearing, mucosal folds in middle ear, ventilation pathways of middle ear and their importance in relation to spread of cholesteatoma.,parts of auditory tube, differences between infant and adult auditory tube, tests for eustachian tube patency Degree-Good/Satisfactory/Bad	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment		ENT	
AN40.3	Describe the features of internal ear Audience- III/I & III/II Behaviour and Condition- Development of inner ear, Structure and function of vestibule and cochlea, Fluid mechanics in inner ear, Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN40.4	Explain anatomical basis of otitis externa and otitis media Audience- III/I & III/II Behaviour and Condition- Location of disease and presentation of the disease, examination of ear, Three point tenderness demonstration, management protocols. Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	
AN40.5	Explain anatomical basis of myringotomy Audience- III/I & III/II Behaviour and Condition- Normal anatomy of tympanic membrane, indications for myringotomy, consent, performance of procedure, placement of incision/grommet, complication associated, desired results. Degree-Good/Satisfactory/Bad	K	KH	N	Lecture	Written		ENT	
Physiology									
PY10.13	Describe and discuss perception of smell and taste sensation Audience- III/I & III/II Behaviour and Condition- Pathway of taste and smell, synergies of both the special senses, structures involved, evaluation of taste and smell perception, abnormalities of taste and smell Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture, Small group discussion	Written /Viva voce		ENT	

PY10.15	Describe and discuss functional anatomy of ear and auditory pathways & physiology of hearing Audience- III/I & III/II Behaviour and Condition- Involvement of external, middle and inner ear and their importance, Tracing of the auditory pathway, Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PY10.16	Describe and discuss pathophysiology of deafness. Describe hearing tests Audience- III/I & III/II Behaviour and Condition- Congenital and acquired causes, Types of deafness, Subjective and objective tests to identify the cause and site of lesion, Ruling out malingering Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		ENT	
PY10.20	Demonstrate (i) hearing (ii) testing for smell and (iii) taste sensation in volunteer/ simulated environment Audience- III/I & III/II Behaviour and Condition- Items required for these tests, counselling the volunteer about the test and obtaining consent for the same,demonstration of the tests and fallacies associated with each Degree-Good/Satisfactory/Bad	S	P	Y	DOAP sessions	Skill assessment/ Viva voce	1 each x 3	ENT, Ophthalmology	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Community Medicine									
CM3.1	Describe the health hazards of air, water, noise, radiation and pollution. Audience- III/I & III/II Behaviour and Condition- Burden on the state, Enumerate the health hazards caused by air, radiation, water borne infection and noise., Preventive measures and counter measures to be taken, global warming. Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture, small group discussion	Written/ Viva voce		General Medicine, ENT	
Dentistry									
DE4.1	Discuss the prevalence of oral cancer and enumerate the common types of cancer that can affect tissues of the oral cavity Audience- III/I & III/II Behaviour and Condition- Brief anatomy of oral cavity, Oncological classification of various sites and subsites in oral cavity and their relevance, Histology of oral cavity, TNM staging of oral cavity malignancies, classification of various types of malignancies Degree-Good/Satisfactory/Bad	K	K	N	Lecture	Viva voce		Pathology	ENT

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DE4.2	Discuss the role of etiological factors in the formation of precancerous /cancerous lesions Audience- III/I & III/II Behaviour and Condition- Enumeration of various etiological factors and the carcinogenesis, incidence of precancerous/cancerous with each agent, Degree-Good/Satisfactory/Bad	K	KH	Y	Lecture, Small group discussion	Viva voce		Pathology	ENT
DE4.3	Identify potential pre-cancerous /cancerous lesions Audience- III/I & III/II Behaviour and Condition- Enumerate the precancerous/cancerous lesions, Careful history taking to rule out/in presence of etiological features. Degree-Good/Satisfactory/Bad	S	SH	N	Observation, Bed side clinics	Skill assessment		Pathology	ENT
DE4.4	Counsel patients to risks of oral cancer with respect to tobacco, smoking, alcohol and other causative factors Audience- III/I & III/II Behaviour and Condition- Degree-	A/C	SH	Y	DOAP session	Document in Log book	2	Pathology	ENT

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
General Medicine									
IM24.17	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly Audience : MBBS III/I Condition & Behaviour: The student must know the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			ENT
Pediatrics									
PE14.2	Discuss the risk factors, clinical features, Diagnosis and management of Kerosene ingestion Audience : MBBS III/I Condition & Behaviour: The student should know the risk factors, clinical features, Diagnosis and management of Kerosene ingestion Degree : Accurately	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE28.1	Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis Audience : MBBS III/I Condition & Behaviour: The student should know the etio-pathogenesis, clinical features and management of Naso pharyngitis Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.2	Discuss the etio-pathogenesis of Pharyngo Tonsillitis Audience : MBBS III/I Condition &Behaviour :The student should know the etio-pathogenesis of Pharyngo Tonsillitis Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.3	Discuss the clinical features and management of Pharyngo Tonsillitis Audience : MBBS III/I Condition & Behaviour: The student should know the clinical features and management of Pharyngo Tonsillitis Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE28.4	Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM) Audience : MBBS III/I Condition & Behaviour: The student should know the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM) Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.5	Discuss the etio-pathogenesis, clinical features and management of Epiglottitis Audience : MBBS III/I Condition & Behaviour: The student should know the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.6	Discuss the etio-pathogenesis, clinical features and management of Acute laryngo-trachea-bronchitis Audience : MBBS III/I Condition &Behaviour : The student should know the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	

PE28.7	Discuss the etiology, clinical features and management of Stridor in children Audience : MBBS III/I Condition &Behaviour : The student should know the etiology, clinical features and management of Stridor in children Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.8	Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children Audience : MBBS III/I Condition &Behaviour : The student should know the types, clinical presentation, and management of foreign body aspiration in infants and children Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.9	Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor Audience : MBBS III/I Condition & Behaviour: The student must be able to elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor Degree : Accurately	S	SH	Y	Bedside clinics, skill lab	Skill Assessment		ENT	

PE28.10	Perform otoscopic examination of the ear	S	SH	Y	DOAP session	Skill Assessment		ENT	
PE28.11	Perform throat examination using tongue depressor	S	SH	Y	DOAP session	Skill Assessment		ENT	
PE28.12	Perform examination of the nose Audience : MBBS III/I Condition & Behaviour: The student must be able to perform examination of the nose Degree : Accurately	S	P	Y	DOAP session	Skill Assessment		ENT	
PE28.17	Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management. Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays Audience: MBBS III/I Condition & Behaviour: The student must be able to Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management. Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays Degree : Accurately	S	P	Y	Bedside clinics, Small group discussion	Skills Assessment	3	ENT, Radio diagnosis	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE31.1	Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children Audience : MBBS III/I Condition & Behaviour: The student must be able to Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children Degree : Accurately	K	KH	Y	Lecture Small group discussion	Written/ Viva voce		ENT	
PE31.3	Describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in children Audience : MBBS III/I Condition & Behaviour: The student must be able to describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in children Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
General Surgery									
SU20.1	Describe etiopathogenesis of oral cancer, symptoms and signs of pharyngeal cancer. Enumerate the appropriate investigations and discuss the principles of treatment. Audience: MBBS III/I Condition & Behaviour: The student must be able to Describe etiopathogenesis of oral cancer, symptoms and signs of pharyngeal cancer. Enumerate the appropriate investigations and discuss the principles of treatment. Degree : Accurately	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	

Each of this topic will be announced earlier, a co-ordinator will be chosen. The co-ordinator will coordinate with concerned departments and organize either a student symposium, group discussion or panel discussion.

CLINICAL POSTINGS DETAILS

Sr. No.	Competency	Topic
1	EN 2.1 -SH	History taking in a patient with ear complaint
2	EN 2.1 SH	History taking in a patient with nose complaint
3	EN 2. 1 SH	History taking in a patient with throat complaint
4	EN 2.2 SH	Demo of technique of examination of ear using head light.
5	EN 2.2 SH	Demo of technique of examination of nose using nasal speculum and head light.
6	EN 2.2 SH	Demo of technique of examination of throat using head light and tongue depressor.
7	EN 2.3 KH	Demo of otoscopy and otomicroscopy in children and adults; writing diagram of TM.
8	EN 2.3 SH	Demo of otoscopy
9	EN 2.5 SH PE 28.12 - P	Demo of technique of examination of nose and PNS, rhinoscopy in children.
10	PE 28.11, SH EN 2.6 SH	Demo of technique of examination of larynx by laryngoscopy.
11	EN 2.4 SH	Demo of technique of examination of Tuning fork tests.
12	EN 2.7 SH	Demo of technique of examination of Neck for neck nodes/swellings, including elicitation of laryngeal crepitus
13	EN 2.8 SH	Demo of technique of performing and interpreting pure tone audiogram and impedance audiometry
14	PE 28.17 P	Interpret X-ray and reports of the nasal bones, PNS and mastoid.
15	PE 28.17 P	Interpret CXR in FB bronchus and for thymic shadows.
16	EN 2.13 SH	Demo of technique of ear and nose FB removal
17	EN 2.13 SH	Demo of technique of anterior nasal packing.
18	EN 2.13 SH	Technique of removal of foreign bodies in ear and nose.
19	EN 2.13 SH	Technique of removal of foreign bodies in throat and upper respiratory tract.
20	EN2.14 SH	Demonstrate the correct technique to instilling topical medications into the ear, nose and throat in a simulated environment
21	EN2.15 KH	Describe the national programs for prevention of deafness, cancer, noise & environmental pollution
22	EN2.10 SH	Identify and describe the use of common instruments used in ENT surgery
23		Assessment by MCQ
24		Assessment by case presentation and viva.

Year of Curriculum	Focus of learner – doctor programme
Year1 (phase I)	Introduction to hospital environment. Early clinical exposure. Understanding perspectives of illness
Year2 (phase II)	History taking, Physical examination. Assessment of change in clinical status, communication and patient education
Year 3 (phase III/I)	All of the above and choice of investigations, basic procedures and continuity of care
Year 4 (phase III/II)	All of the above and decision making, management and outcomes

Learner-doctor method of clinical training (Clinical Clerkship)

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.

Structure:

a) The first clinical posting in second professional shall orient learners to the patient, their roles and the specialty.
b) The learner-doctor programme will progress as outlined.
c) The learner will function as a part of the health care team with the following responsibilities:
    i) Be part of the unit's outpatient services on admission days,
    ii) Remain with the admission unit until 6 PM except during designated class hours,
    iii) 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,
    iv) Participate in the unit rounds on its admission day and will present the assigned patients to the supervising physician,
    v) Follow the patient's progress throughout the hospital stay until discharge,
    vi) Participate, under supervision, in procedures, surgeries, deliveries etc. of assigned patients(according to responsibilities outlined in table 9),
    vii) Participate in unit rounds on at least one other day of the week excluding the admission day,

viii) Discuss ethical and other humanitarian issues during unit rounds,

ix) Attend all scheduled classes and educational activities,

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

xi) No learner will be given independent charge of the patient

xii) The supervising physician will be responsible for all patient care decisions

ASSESSMENT FOR UNDERGRADUATES (MBBS III PHASE PART-I)

- 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.
- 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. The log book shall also include records of outpatients assigned.
- Submission of the log book/ case record to the department is required for eligibility to appear for the final examination of the subject.

ELIGIBILITY FOR EXAMINATION

1. There shall be a minimum of 75% attendance in theory & 80% in Practical / Clinical for eligibility to appear for the examination.
2. Learners must secure at least 50% marks of the total marks (combined in theory & Practical / Clinical; not less than 40% marks in theory & Practical separately) for internal assessment. To be eligible for appearing at the final university Examination.
3. Learners must have completed the required certifiable competencies for third phase training and completed the log book to be eligible for appearing at the final university examination.
4. 75% attendance in Professional Development Programme (AETCOM Module) shall be mandatory for eligibility to appear for final examination.

INTERNAL ASSESSMENT

Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process including assignments, preparation for seminar, clinical case presentation, preparation of clinical case for discussion, clinical case study/ problem solving exercise, participation in project for health care in the community. Internal assessment shall not be added to summative assessment. However, internal assessment should be displayed under a separate column in detailed marks card.

THEORY IA: The final cumulative IA is out of 100 for theory and practical each for Ophthalmology. Regular periodic examinations shall be conducted throughout the course. There shall be two theory internal assessment examinations in Phase III Part I, each for 50 marks. A preliminary theory examination for 100 marks will be conducted 2 months prior to scheduled final examination. The final IA marks out of 100 will be an aggregate of all three examinations.

PRACTICAL IA: An end of posting clinical assessment shall be conducted for each clinical posting in each professional year. Practical IA in ophthalmology is divided as 25 marks in phase II and 75 marks in Phase III part 1 totaling to 100 marks.

Day to day records and log book (including required skill certifications) will be given importance in internal assessment. Internal assessment will be based on competencies and skills. The detailed breakup of marks in internal assessment as follows.

BLDE

(DEEMED TO BE UNIVERSITY)

Declared as Deemed to be University u/s 3 of UGC Act, 1956

The Constituent College

SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, VIJAYAPURA

Faculty: III MBBS	Year / Phase- II & III Part I	Date:

DEPARTMENT OF OTORHINOLARYNGOLOGY

Sl. No	Roll No	Name of the student	Theory internal Assessment			Average	Internal Assessment Practical						Total Practical IA Marks
							Phase-II Ward Leaving Test	Phase III-Part-I					
			1st IA	2nd IA	Prelims			Ward Leaving Test	OSCE	Log Book	Theory Attendance	AETCOM Competencies (OSCE/MCQ)	
			50	50	100	100	25	25	20	10	10	10	100

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) for internal assessment 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 will be displayed on the notice board within one week of the test. Remedial classes will be conducted for students who are either not able to score qualifying marks or have missed some assessments due to any reason.

University Examination:

University examination will be held at MBBS Phase III part-I.

University examinations are 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.

Nature of questions shall include different types such as structured assays (Long-Answer Questions -LAQ), Short-Answer Questions (SAQ) and objective type questions (e.g. Multiple Choice Questions - MCQ). Marks for each part shall be indicated separately. MCQs shall be accorded a weightage of 20% of the total theory marks. Practical /clinical examinations shall be conducted in the hospital wards. The objective will be to assess proficiency and skills to conduct experiments, interpret data and form logical conclusion. Clinical cases kept in the examination will be 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 discouraged. Emphasis will 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 will assess approach to patient management, emergencies, and attitudinal, ethical and professional values. Candidate's skill in interpretation of common investigative data, identification of specimens, OCT, Perimetry, etc. is to be assessed.

Scheme of Examination

Theory Examination: 100 marks /3 hours paper consists of following:

a) Structured Long Essay Questions(SLEQ) =2×10 marks each =20 marks
b) Short Essay Questions(SEQ) =6×5 marks each = 30marks
c) Short Answer Questions(SAQ) = 10×3 marks each =30marks
d) Multiple Choice Questions(MCQ) =20×1mark each=20 Marks

At least one question shall test the knowledge, and competencies acquired during the professional development programme (AETCOM module).

Practical Examination [Total 100 Marks]

Consisting of

1. 2 Long cases (2×30 marks = 60 marks)
2. Viva: 20 Marks including
   a. Surgical instruments
   b. Drugs & Specimens
   c. Audiometry
   d. Imaging/X Ray

All the four examiners will take table viva with above inclusions separately. Each table has 5 Marks with a total of 20 marks.

3. OSCE (4x5 Marks = 20 Marks)
4. OSCE stations will be organized. Every station has 5 marks with pre-designated marks distribution.

Skills competencies acquired during the Professional Development Programme (AETCOM module) shall be tested during clinical, practical and viva.

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The Constituent College
SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, VIJAYAPURA

Faculty: III MBBS	Year / Phase- III Part I	Date:

DEPARTMENT OF OTORHINOLARYNGOLOGY
Practical Marks List

Sl. No.	Roll No	Long Case No-1	Long Case No-2	Viva 20 Marks				OSCE 20 Marks				Total Practical Marks
				Surgical Instruments	Drugs & Specimens	Audiometry	Imaging/X Ray	Station-1	Station-2	Station-3	Station-4	
		30 Marks	30 Marks	5 Marks	5 Marks	5 Marks	5 Marks	5 Marks	5 Marks	5 Marks	5 Marks	100 Marks

Recommended Books:

1. Logan Turner's Diseases of ENT, edited by AGB Maran (Wright). 11th edition.
2. Dhingra. P.L Diseases of Ear, Nose and Throat. 8th Ed. Churchill Livingstone.
3. Mohd. Maqbool, Textbook of ENT Diseases. 8th Ed. Jaypee Brothers.
4. Synopsis of Otolaryngology- John Ballantyne

REFERENCES

1. Scott-Brown's Otolaryngology.
2. Ballenger's Text book of Otorhinolaryngology.

Department of Medicine

Goal

The undergraduate medical education program is designed with a goal to create an "Indian Medical Graduate" (IMG) possessing requisite knowledge, skills, attitudes, values and responsiveness, so that she or he may function appropriately and effectively as a physician of first contact of the community while being globally relevant.

Objectives

a) Be competent in diagnosis and management of common health problems of the individual and the community, commensurate with his/her position as a member of the health team at the primary, secondary or tertiary levels, using his/her clinical skills based on history, physical examination and relevant investigations.

b) Be competent to practice preventive, promotive, curative and rehabilitative medicine in respect to the commonly encountered health problems.

c) Appreciate rationale for different therapeutic modalities, be familiar with the administration of the "essential drugs" and their common side effects.

d) Be able to appreciate the socio-psychological, cultural, economic and environmental factors affecting health and develop humane attitude towards the patients in discharging one's professional responsibilities.

Department of Medicine

PHASE-II

THEORY TOPICS

Sl. No.	IM	Topics
1	-	Clinical approach to disease and care of patient
2	-	Pain: Pathophysiologyclinical types, assessment & Management
3	IM 14.1 TO 4.5	Obesity InteractiveLecture
4	IM 3.2,3.6,3.7,3.14	Cough, expectoration & haemoptysis. Interactive lectures
5	IM 9.1,9.2	Anemia – Definition Etiology And Classification Interactive Lecture
6	IM 9.6,9.7,9.8,9.12	Anemia- diagnostic workupand management Interactive Lecture
7	IM 10.13	Oedema Anasarca, Interactive Lecture
8	IM 23.1,23.2	Nutritional assessment and causes & consequence of malnutrition.

9	IM 23.3	Aetiology, causes, clinicalmanifestations,complications, diagnosis and management ofcommon vitamin deficiencies Interactive Lecture
10	IM 8.1 to 8.5	Hypertension Definition and classificationepidemiology, etiology ,the Prevalence, pathophysiology, genetic factor Nesting
11	IM 8.6 to 8.9 and 8.12	Hypertension Interactive Lecture
12	IM 2.7	HIV
13	IM 5.15	Abdominal distension &Ascites - pathophysiologyand approach.
14	IM 5.1,5.14	Jaundice – pathophysiologyand approach
15	IM 17.1,17.2,17.3, 17.10,17.11,17.12	Headache &vertigo, Interactive Lecture
16	IM 19.1-19.9	Movement disorders &disorders ofgait. Interactive Lecture
17	IM 16.1 16.2 16.11-14	Diarrhealdisorders Nesting
18	IM 21.1to 21.421.8	Poisoning- identification of type of poisoning andapproach Nesting
19	IM 20.1, 20.3,20.7 TO 20.9	Envenomation-Snake bite bee sting and scorpion sting InteractiveLecture
20	IM 22.1 to 22.3	Mineral disorder – (calcium) etiology pathophysiology and approach

Clinical Topics for PHASE-II

Sl. No.	IM No	Topic
1	-	Introduction to history taking
2	IM 2.7	Approach to chest pain
3	IM 3.5	Approach to breathlessness
4	IM 4.9	Fever
5	IM 5.10	General physical examination that establishes nutritional status
6	IM 5.10	Jaundice
7	IM 5.10	Clubbing
8	IM 8.10	An accurate measurement of blood pressure, examination of vasculature and vital parameters
9	IM 8.17	Perform 12 lead ECG
10	IM 9.4	General examination for pallor, icterus & other oral examination
11	IM 9.4	General examination lymph node
12	IM 10.21	Describe and discuss the indications for and insert a peripheral intravenous catheter, Foleys catheter and Ryel's tube
13	IM 12.7	Demonstrate the correct technique to palpate the thyroid
14	IM14.6 14.7	Obesity assessment
15	IM 17.2	Approach to headache
16	IM 26.22	Demonstrate ability to maintain confidentiality in patient care

Skill Lab Topics for PHASE II

Sl. No	Topic	Week
1	IM Injection	1st Week
2	IV Injection	2nd Week
3	Sub-cutaneous Injection	3rd Week
4	Intradermal Injection	4th Week

MBBS-PHASE III/I

THEORY TOPICS

Sl. No.	IM	Topics
1	IM 25.2	Causes, Pathophysiology and manifestations and Zoonotic Diseases
2	IM 25.6	Differential diagnosis and clinicial features that help distinguish between infective, inflammatory malignanant and rheumatologic causes
3	IM 25.7	Diagnostic tests in the interpretation of laboratory report and make conclusion of zoonotic diseases
4	IM 25.8	Describe the new methods in diagnosis of zoonotic diseases
5	IM 25,10	History taking, general physical examination, investigation and treatment of zoonotic diseases
6	IM 10.2	Define introduction of Renal failure. Causes of pathophysiology of Acute renal failure.
7	IM 10.4	Clinical presentation, investigations and clinical approach and treatment of Acute renal failure.
8	IM 10.5 & 10.6	Chronic renal failure- Definition, causes pathophysiology and staging
9	IM 10.7	Describe the etiopathogenesis, signs and symptoms of uraemia
10	IM 10.8	Proteinuria- Definition, causes, and to differentiate between micro and macro proteinuria
11	IM 10.20	Proteinuria- Definition, causes, and to differentiate between micro and macro proteinuria
12	IM 10.27	Dialysis- Types, indications and complications
13	IM 13.2-3.6	Pneumonia-Definition, etiology, pathophysiology, Risk factors, Lab diagnosis, complications
14	IM 3.9-3.14	Pneumonia-Diagnosis and management
15	IM 3.15	Indications for hospitalisation in patients with pneumonia
16	IM 3.19	Vaccination-Indications and counselling the patient for pneumococcal and influenza vaccine.
17	IM 9.1-9.2	Anemia- Definition, classification, causes, and pathogenesis
18	IM 9.6	Anemia-Differential diagnosis, clinical presentation in specific aetiology of anemia
19	IM 9.8	Diagnostic tests of various types of Anemia
20	IM 9.10	Describe, interpret a peripheral smear and stool occult blood

TUTORIAL TOPICS

PHASE III/I

Sl. No	IM NO	TOPIC
1	25.4	
2	25.5	Describe and discuss the role of beneficence of a guiding principlein patient care
3	25.6	Differentiating features of infective And inflammatory diseases.25. 6 SGD
4	25.7	Diagnostic tests in the diagnosis, interpretation of laboratory report and make a conclusion of Zoonotic diseases
5	25.8	Identify discuss medicolegal, socioeconomic and ethical issues as it pertains to organ donation
6	25.12	Communication with family members regarding the diagnosis and treatment in simulated environment
7	25.13	Demonstrate the Ways of prevention of Transmission of Zoonotic diseases to the patient and family members.
8	10.12	Elicit document and present a medical history that will differentiate the aetiologies of disease, distinguish acute and Chronic disease
9	10.13	Perform systematic examination that establishes the diagnosis and severity including determination of volume status, presence of edema and heart failure, features of uremia and associated systemic disease
10	10.14	IM Chronic renal disease. DOAP session
11	10.15	Discuss the approach to chronic renal diseases. Describe the algorithmic diagnostic approach to chronic renal diseases based on presumed etiology DOAP
12	10.16	Indications and interpretation of renal function tests, calcium, phosphorus, PTH, osmolality and iron
13	10.17	Describe and calculate indices of renal functions- FEN a (Fractional Excretion of Sodium) and Cr Cl (Creatinine Clearance)
14	10.18- 10.19	ECG findings in various Electrolyte abnormalities. Indications and findings on ultrasound abdomen and pelvis Enumerate the indications and describe the findings in renal ultrasound
15	10.20	ABG analysis and interpretation

SDL TOPICS III/I

Sl. No.	IM No	Topic
1	IM 3.16	Describe and enumerate the indications for isolation and barriernursing in patients with pneumonia
2	IM 4.17	Observe and assist in the performance of a bone marrow aspirationand biopsy in a simulated environment
3	IM 4.19 IM 4.20	Assist in the collection of blood and wound cultures Interpret a PPD (Mantoux)
4	IM 6.15	Demonstrate in a model the correct technique to perform a lumbarpuncture
5	IM 8.16	Develop and communicate to the patient lifestyle modification including weight reduction, moderation of alcohol intake, physicalactivity and sodium intake
6	IM 8.19	Demonstrate understanding of the impact of Hypertension on qualityof life, wellbeing, work and family
7	IM 8.20	Determine the need for specialist consultation
8	IM 9.15	Communicate the diagnosis and the treatment appropriately topatients
9	IM 9.16	Incorporate patient preferences in the management of anemia
10	IM 10.10	Describe and discuss the association between CKD glycemia and hypertension

CLINICAL TOPICS III/I

Sl. No.	IM No	Topic
First Week :		
1	9.2 – 9.6	Approach to patient with Anemia
2	10.15 – 10.18	Approach to patient with Acute Kidney Injury and Chronic Renal failure
3	11.7 – 11.11	Diabetes Mellitus
4	12.5 – 12.11	Hypothyroidism and Thyrotoxicosis
5	14.6 – 14.12	Obesity
Second Week :		
6	16.4 – 16.10	Diarrhoeal Disorder
7	17.2 – 17.6	Headache
8	18.3 – 18.10	Cerebrovascular accident
9	19.3 – 19.7	Movement Disorders
10	20.4 – 20.9	Envenomation and Poisoning
Third Week :		
11	23.3 – 23.5	Nutritional and Vitamin Deficiency
12	25.4 – 25.13	Common Infectious Diseases, (Malaria, Dengue, Leptospirosis)
13	1.10 – 1.15	Heart failure
14	2.6. – 2.12	Acute Myocardial Infarction / Ischemic Heart Disease
15	3.4 – 3.13	Pneumonia
Fourth Week :		
16	4.9 – 4.15	Approach to Fever
17	5.9 – 5.10, 5.14	Liver disorders
18	6.7, 6.8, 6.19 - 6.23	HIV
19	7.11 – 7.18	Rheumatological disorders
20	8.9 – 8.11	Hypertension

Clinical Skill Topics – III Phase Part – I

Sl. No.	Topic	Week
1	Blood Transfusion	1st Week
2	Urinary Catheterization	2nd Week
3	Ryle's Tube Insertion	3rd Week
4	Basic Life Support	4th Week

MBBS PHASE –III/II

THEORY TOPICS

	IM NO.	Topic
1	IM NO.1.1	Describe and discuss the epidemiology, pathogenesis clinical evolution and course of common causes of heart disease including: rheumatic/ valvular, ischemic, hypertrophic inflammatory
2	IM NO.1.2	Describe and discuss the genetic basis of some forms of heartfailure
	1.4	Stage heart failure
	1.5	Describe ,discuss and differentiate the processes involved in R Vs L heart failure, systolic vs diastolic failure
3	IM NO.1.6	Describe and discuss the compensatory mechanisms involved in heart failure including cardiac remodeling and neurohormonal adaptations
4	IM 1.3	Describe and discuss the aetiology microbiology pathogenies and clinical evolution of rheumatic fever, criteria, degree of rheumatic activity and rheumatic valvular heart disease and its complications including infective endocarditis
5	IM 1.8	Describe and discuss the pathogenesis and development of common arrhythmias involved in heart failure particularly atrialfibrillation
6	IM 1.24	Describe and discuss the pharmacology of drugs including indications, contraindications in the management of heart failure including diuretics, ACE inhibitors, Beta blockers, aldosterone antagonists and cardiac glycosides
7	IM 2.19	Discuss and describe the pathogenesis, recognition and management of complications of acute coronary syndromes including arrhythmias, shock, LV dysfunction, papillary musclerupture and pericarditis
8	IM 6.2,	Define and classify HIV AIDS based on the CDC criteria
9	IM 6.3	Describe and discuss the relationship between CDC count and the risk of opportunistic infections
10	IM 6.5,	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related malignancies
11	IM 6.6	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related skin and oral lesions
12	IM 6.10	Choose and interpret appropriate diagnostic tests to diagnose opportunistic infections including CBC, sputum examination and cultures, blood cultures, stool analysis, CSF analysis and Chest radiographs
13	IM 6.16	Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions

14	IM 7.6	Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain
15	IM 7.8	Determine the potential causes of join pain based on the presenting features of joint involvement
16	IM 14.2 OBESITY	Describe and discuss the aetiology of obesity including modifiable and non-modifiable risk factors and secondary causes
17	IM 14.9	Order and interpret diagnostic tests based on the clinical diagnosis including blood glucose, lipids, thyroid function tests etc.
18	IM 14.13	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for obesity
19	IM 14.14	Describe and enumerate the indications and side effects of bariatric surgery
20	IM 15.1	Enumerate, describe and discuss the aetiology of upper and lowerGI bleeding
21	IM 15.2	Enumerate, describe and discuss the evaluation and steps involvedin stabilizing a patient who presents with acute volume loss and GI bleed
22	IM 15.12 & IM. 14	Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion
23	IM 15.15	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of acid peptic disease including Helicobacter pylori
24	IM 17.7 & IM 17.13	Enumerate the indications and describe the findings in the CSF in patients with meningitis Describe the pharmacology, dose, adverse reactions and regimensof drugs used in the treatment of bacterial, tubercular and viral meningitis
25	IM 181.12 & IM 18.13	Enumerate the indications for and describe acute therapy of non-haemorrhagic stroke including the use of thrombolytic agents Enumerate the indications for and describe the role of anti-platelet agents in non-haemorrhagic stroke
26	IM 18.14	Describe the initial management of a haemorrhagic stroke
27	IM 18.15	Enumerate the indications for surgery in a haemorrhagic stroke
28	IM 18.16	Enumerate the indications describe and observe themultidisciplinary rehabilitation of patients with a CVA
29	IM 24.3	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of acute confessional states

30	IM 24.4	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vascular events in the elderly
31	IM 24.5	Describe and discuss the aetiopathogenesis clinical presentation identification, functional changes, acute care, stabilization, management and rehabilitation of depression in the elderly
32	IM 24.6	Describe and discuss the aetiopathogenesis causes, clinical presentation, difference in discussion presentation identification, functional changes, acute care, stabilization, management and rehabilitation of dementia in the elderly
33	IM 24.6	Describe and discuss the aetiopathogenesis causes, clinical presentation, difference in discussion presentation identification, functional changes, acute care, stabilization, management and rehabilitation of dementia in the elderly
34	IM 24.7	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of personality changes in the elderly
35	IM 24.8	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of osteoporosis in the elderly
36	IM 24.9	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of CVA in the elderly
37	IM 24.10	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly
38	IM 24.11	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery
39	IM 24.12	Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of degenerative joint disease
40	IM 24.13	Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of falls in the elderly
41	IM 24.14	Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of common fractures in the elderly
42	IM 24.15	Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vision and visual loss in the elderly

43	IM 24.16	Describe and discuss the principles of physical and social rehabilitation, functional assessment, role of physiotherapy and occupational therapy in the management of disability in the elderly
44	IM 24.17	Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly
45	IM 24.22	Describe and discuss the etiopathogenesis, clinical presentation, complications, assessment and management of nutritional disorders in the elderly
46	IM 7.2	Describe the genetic basis of autoimmune disease
47	IM 7.4	Develop a systematic clinical approach to joint pain based on the pathophysiology
48	IM 7.19	Develop an appropriate treatment plan for patients with rheumatologic diseases
49	Extra Class IM 11.22	Enumerate the causes of hypoglycemia and describe the counter hormone response and the initial approach and treatment
50	IM 3.1 Pneumonia	Define, discuss, describe and distinguish community acquired pneumonia, nosocomial pneumonia and aspiration pneumonia
51	IM 4.6 Malaria	Discuss and describe the pathophysiology and manifestations of malaria
52	IM 4.22 Antimalarial Drugs	Describe and discuss the pharmacology, indications, adverse reactions, interactions of antimalarial drugs and basis of resistance
53	IM 5.6 & IM 5.16	Describe and discuss the pathophysiology, clinical evolution and complications of cirrhosis and portal hypertension including ascites, spontaneous bacterial peritonitis, hepatorenal syndrome and hepatic encephalopathy Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites spontaneous, bacterial peritonitis and hepatic encephalopathy
54	IM 5.7	Enumerate and describe the causes and pathophysiology of drug induced liver injury
55	IM 10.3	Describe the pathophysiology and causes of pre renal ARF, renaland post renal ARF
56	IM 10.9	Enumerate the indications and describe the findings in renal ultrasound
57	IM 10.26	Describe and discuss supportive therapy in CKD including diet, anti-hypertensives, glycemic therapy, dyslipidemia, anemia, hyperkalaemia, hyperphosphatemia and secondary hyperparathyroidism
58	IM 11.1,	Define and classify diabetes

59	IM 11.3	Describe and discuss the epidemiology and pathogenesis and risk factors economic impact and clinical evolution of type 2 diabetes
60	IM 11.4	Describe and discuss the genetic background and the influence of the environment on diabetes
61	IM 11.5	Describe and discuss the pathogenesis and temporal evolution of microvascular and macrovascular complications of diabetes
62	IM 11.6	Describe and discuss the pathogenesis and precipitating factors, recognition and management of diabetic emergencies
63	IM 11.18	Describe and discuss the pharmacology, indications, adverse reactions and interactions of drugs used in the prevention and treatment of target organ damage and complications of Type II Diabetes including neuropathy, nephropathy, retinopathy, hypertension, dyslipidemia and cardiovascular disease
64	IM 12.2,	Describe and discuss the genetic basis of some forms of thyroid dysfunction
	IM 12.3	Describe and discuss the physiology of the hypothalamopituitary - thyroid axis, principles of thyroid function testing and alterations in physiologic function
65	IM 12.4 &	Describe and discuss the principles of radio iodine uptake in the diagnosis of thyroid disorders
	IM 12.15	Describe and discuss the indications of thionamide therapy, radio iodine therapy and surgery in the management of thyrotoxicosis
66	IM 16.3	Describe and discuss the chronic effects of diarrhea including malabsorption
67	IM 16.15,	Distinguish based on the clinical presentation Crohn’s disease from Ulcerative Colitis
68	IM 16.16,	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy including immunotherapy
69	IM 16.17	Describe and enumerate the indications for surgery in inflammatory bowel disease
70	IM 11.6	Describe and discuss the pathogenesis and precipitating factors, recognition and management of diabetic emergencies
71	IM 11.23	Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis,stabilisation and management of diabetic ketoacidosis
72	IM 11.24	Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of Hyperosmolar non ketotic state
73	IM 21.6	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

74	IM 22.9	Enumerate the causes and describe the clinical and laboratory features of metabolic acidosis
75	IM 22.10	Enumerate the causes of describe the clinical and laboratory features of metabolic alkalosis
76	IM 22.11	Enumerate the causes and describe the clinical and laboratory features of respiratory acidosis
77	IM 22.12	Enumerate the causes and describe the clinical and laboratory features of respiratory alkalosis
78	IM 8.13	Enumerate the indications for and interpret the results of : CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG
79	IM 2.17	Discuss and describe the indications and methods of cardiac rehabilitation
80	IM 6.17	Discuss and describe the principles and regimens used in post exposure prophylaxis
81	IM 7.21	Select, prescribe and communicate preventive therapy for crystalline arthropathies
82	IM 7.24	Communicate and incorporate patient preferences in the choice of therapy
83	IM 4.20	Interpret a PPD (Mantoux)
84	IM8.13	Enumerate the indications for and interpret the results of : CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG
85	IM 9.9	Order and interpret tests for anemia including hemogram, red cell indices, reticulocyte count, iron studies, B12 and folate
86	IM 10.19	Enumerate the indications and describe the findings in renal ultrasound
87	IM 6.15	Demonstrate in a model the correct technique to perform a lumbar puncture
88	IM 7.20	Select, prescribe and communicate appropriate medications forrelief of joint pain
89	IM 7.21	Select, prescribe and communicate preventive therapy for crystalline arthropathies
90	IM 7.1	Describe the pathophysiology of autoimmune disease
91	IM 7.3	Classify cause of joint pain based on the pathophysiology
92	IM 7.9	Describe the common signs and symptoms of articular and periarticular diseases
93	IM 7.5	Describe and discriminate acute, subacute and chronic causes of joint pain
94	IM 12.1	Describe the epidemiology and pathogenesis of hypothyroidism and hyperthyroidism including the influence of iodine deficiency and

PHASE III/II

TUTORIAL TOPICS

Sl. No.	IM No.	Topic
Topic: Heart Failure		
1	IM 1.16	Generate a differential diagnosis based on the clinical presentation and prioritize it based on the most likely diagnosis
2	IM 1.19	Enumerate the indications for and describe the findings of heart failure with the following conditions including: 2D echocardiography, brain natriuretic peptide, exercise testing, nuclear medicine testing and coronary angiogram
3	IM 1.25	Enumerate the indications for valvuloplasty, valvotomy, coronary revascularization and cardiac transplantation
4	IM 1.27	Describe and discuss the role of penicillin prophylaxis in the prevention of rheumatic heart disease
5	IM 1.28	Enumerate the causes of adult presentations of congenital heart disease and describe the distinguishing features between cyanotic and acyanotic heart disease
6	IM 1.29	Elicit document and present an appropriate history, demonstrate correctly general examination, relevant clinical findings and formulate document and present a management plan for an adult patient presenting with a common form of congenital heart disease
Topic: Acute Myocardial Infarction/IHD		
7	IM 2.13	Discuss and enumerate the indications for and findings on echocardiogram, stress testing and coronary angiogram
8	IM 2.17	Discuss and describe the indications and methods of cardiac rehabilitation
9	IM 2.24	Counsel and communicate to patients with empathy life style changes in atherosclerosis/post coronary syndromes
Topic: Pneumonia		
10	IM 4.16	Enumerate the indications and describe the findings in tests of inflammation and specific rheumatologic tests, serologic testing for pathogens including HIV, bone marrow aspiration and biopsy
11	IM 4.20	Interpret PPD(Mantoux)
12	IM 4.23	Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national programs
13	IM 4.24	Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis

Topic: Liver disease		
14	IM 5.17	Enumerate the indications, precautions and counsel patients on vaccination for hepatitis
Topic: HIV		
15	IM 6.15	Demonstrate in a model the correct technique to perform lumbar puncture
16	IM 6.16	Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions
17	IM 6.17	Discuss and describe the principles and regimens used in post exposure prophylaxis
18	IM 6.18	Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections
Topic: Rheumatologic problems		
19	IM 7.20	Select, prescribe and communicate appropriate medications for relief of joint pain
20	IM 7.21	Select, prescribe and communicate preventive therapy for crystalline arthropathies
21	IM 7.22	Select, prescribe and communicate treatment option for systemic rheumatologic conditions
22	IM 7.23	Describe the basis for biologic and disease modifying therapy in rheumatologic diseases
23	IM 7.24	Communicate and incorporate patient preferences in the choice of therapy
24	IM 7.25	Develop and communicate appropriate follow up and monitoring plans for patients with rheumatologic conditions
25	IM 7.27	Determine the need for specialist consultation
Topic: Hypertension		
26	IM 8.13	Enumerate the indications for and interpret the results of : CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG
27	IM 8.14	Develop an appropriate treatment plan for essential hypertension
28	IM 8.18	Incorporate patient preferences in the management of HTN
29	IM 9.9	Order and interpret tests for anemia including hemogram , red cell indices, reticulocyte count, iron studies, B12 and folate
30	IM 9.14	Describe the national programs for anemia prevention
31	IM 9.20	Communicate and counsel patients with methods to prevent nutritional anemia
Topic: Acute Kidney Injury and Chronic renal failure		
32	IM 10.11	Describe and discuss the relationship between CAD risk factors and CKD and in dialysis

33	IM 10.19	Enumerate the indications and describe the findings in renal ultrasound
34	IM 10.23	Communicate diagnosis treatment plan and subsequent follow up plan to patients
35	IM 10.30	Recognize the impact of CKD on patient's quality of life wellbeing work and family
36	IM 10.31	Incorporate patient preferences into the care of CKD
Topic: Diabetes Mellitus		
37	IM 11.14	Recognize the presentation of hypoglycemia and outline the principles on its therapy
38	IM 11.15	Recognize the presentation of diabetic emergencies and outline the principles of therapy
39	IM 11.21	Recognise the importance of patient preference while selecting therapy for diabetes
40	IM 12.12	Describe and discuss the iodisation programs of the government of India
41	IM 13.4	Describe the natural history, presentation, course, complications and cause of death for common cancers
42	IM 13.5	Describe the common issues encountered in patients at the end of life principles of management
43	IM 13.6	Describe and distinguish the difference between curative and palliative care in patients with cancer
44	IM 13.7	Elicit document and present a history that will help establish the etiology of cancer and includes the appropriate risk factors, duration and evolution
35	IM 13.12	Describe the indications and interpret the results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers
46	IM 13.14	Describe the indications for surgery, radiation and chemotherapy for common malignancies
47	IM 13.15	Describe the need, tests involved, their utility in the prevention of common malignancies
48	IM 13.16	Demonstrate an understanding and needs and preferences of patients when choosing curative and palliative therapy
49	IM 13.17	Describe and enumerate the indications, use, side effects of narcotics in pain alleviation in patients with cancer
Topic: Obesity		
50	IM 14.10	Describe the indications and interpret the results of tests for secondary causes of obesity
51	IM 14.15	Describe, enumerate and educate patients, health care workers and the public on measures to prevent obesity and promote a healthy lifestyle

Topic: GI bleeding		
52	IM 15.4	Elicit and document and present an appropriate history that identifies the route of bleeding, quantity, grade, volume loss, duration, etiology, comorbid illnesses and risk factors
53	IM 15.9	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.
54	IM 15.11	Develop, document and present a treatment plan that includes fluid resuscitation, blood and blood component transfusion, and specific therapy for arresting blood loss
55	IM 15.16	Enumerate the indications for endoscopic interventions and Surgery
Topic: Diarrheal disorders		
56	IM 17.9	Interpret the CSF findings when presented with various parameters of CSF fluid analysis
Topic: Cerebrovascular accident		
57	IM 18.1	Describe the functional and the vascular anatomy of the brain
Topic: Movement disorders		
Topic : Envenomation		
58	IM 21.5	Observe and describe the functions and role of a poison center in suspected poisoning
Topic: Mineral, Fluid Electrolyte and Acid base Disorder		
59	IM 22.4	Enumerate the components and describe the genetic basis of the multiple endocrine neoplasia syndrome
60	IM 22.13	Identify the underlying acid base disorder based on an ABG report and clinical situation
Topic: Nutritional and Vitamin Deficiencies		
Topic: Geriatrics		
61	IM 24.7	Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of personality changes in the elderly
62	IM 24.18	Describe the impact of the demographic changes in ageing on the population
63	IM 24.21	Enumerate and describe ethical issues in the care of the elderly
Topic: The role of the physician in the community		
64	IM 26.5	Describe and discuss the role of beneficence of a guiding principle in patient care
65	IM 26.8	Identify discuss medicolegal, socioeconomic and ethical issues as it pertains to organ donation

66	IM 26.11	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to patient autonomy, patient rights and shared responsibility in health care
67	IM 26.13	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
68	IM 26.16	Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues as it pertains to the physician patient relationship (including fiduciary duty)
69	IM 26.21	Demonstrate respect to patient privacy
70	IM 26.23	Demonstrate a commitment to continued learning
71	IM 26.29	Communicate diagnostic and therapeutic options to patient and family in a simulated environment
72	IM 26.43	Identify, discuss and defend medico legal, sociocultural, economic and ethical issues as they pertain to in vitro fertilization donor insemination and surrogate motherhood

PHASE III/II

SDL TOPICS

Sl. No.	IM	Topics
1	IM 1.16	Generate a differential diagnosis based on the clinical presentation and priorities it based on the most likely diagnosis
2	IM 1.19	Enumerate the indications for and describe the findings of heart failure with the following conditions including: 2D echocardiography, brain natriuretic peptide, exercise testing, nuclear medicine testing and coronary angiogram
3	IM 1.25	Enumerate the indications for valvuloplasty, valvotomy, coronary revascularization and cardiac transplantation
4	IM 1.28	Enumerate the causes of adult presentations of congenital heart disease and describe the distinguishing features between cyanoticand acyanotic heart disease
5	IM 2.27	
6	IM 4.20	Interpret a PPD (Mantoux)
7	IM 5.17	Enumerate the indications, precautions and counsel patients on vaccination for hepatitis
8	IM 6.16	Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions
9	IM 7.20	Select, prescribe and communicate appropriate medications forrelief of joint pain
10	IM 7.24	Communicate and incorporate patient preferences in the choice of therapy
11	IM 8.13	Enumerate the indications for and interpret the results of : CBC,Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG
12	IM 10.30	Recognize the impact of CKD on patient's quality of life wellbeing work and family
13	IM 11.15	Describe and discuss the pathogenesis and temporal evolution of microvascular and macrovascular complications of diabetes
14	IM 13.4	Describe the natural history, presentation, course, complicationsand cause of death for common cancers
15	IM 13.7	Elicit document and present a history that will help establish the etiology of cancer and includes the appropriate risk factors, duration and evolution
16	IM 13.15	Describe the need, tests involved, their utility in the prevention of common malignancies
17	IM 14.10	Describe the indications and interpret the results of tests forsecondary causes of obesity
18	IM 15.9	Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, PT and PTT, stoolexamination, occult blood, liver function tests, H. pylori test.

19	IM 17.9	Interpret the CSF findings when presented with various parametersof CSF fluid analysis
20	IM 22.4	Enumerate the components and describe the genetic basis of the multiple endocrine neoplasia syndrome
21	IM 24.7	Enumerate the causes and describe the clinical and laboratoryfeatures and the correct approach to the diagnosis and management of the patient with hypokalemia
22	IM 24.18	Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of osteoporosis in the elderly
23	IM 24.21	Enumerate and describe ethical issues in the care of the elderly
24	IM 26.5	Describe and discuss the role of beneficence of a guiding principlein patient care
25	IM 26.11	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to patient autonomy, patient rights and shared responsibility in health care
26	IM 26.16	Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues as it pertains to the physicianpatient relationship (including fiduciary duty)
27	IM 26.23	Demonstrate a commitment to continued learning
28	IM 26.43	Demonstrate a commitment to continued learning
29	IM 5.17	Determine appropriate level of specialist consultation
30	IM 6.15	Distinguish based on the clinical presentation Crohn's disease from Ulcerative Colitis
31	IM 6.18	Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections
32	IM 7.22	Select, prescribe and communicate treatment option for systemic rheumatologic conditions
33	IM 7.25	Develop and communicate appropriate follow up and monitoring plans for patients with rheumatologic conditions
34	IM 4.23	Prescribe drugs for malaria based on the species identified,prevalence of drug resistance and national programs
35	IM 8.18	Incorporate patient preferences in the management of HTN
36	IM 9.20	Communicate and counsel patients with methods to prevent nutritional anemia
37	IM 10.23	Communicate diagnosis treatment plan and subsequent follow upplan to patients
38	IM 24.16	Describe and discuss the principles of physical and social rehabilitation, functional assessment, role of physiotherapy and occupational therapy in the management of disability in the elderly
39	IM 7.22	Select, prescribe and communicate treatment option for systemic rheumatologic conditions

40	IM 24.10	Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly
41	IM 24.5	Describe and discuss the etiopathogenesis clinical presentation identification, functional changes, acute care, stabilization, management and rehabilitation of depression in the elderly
42	IM 2.4	Discuss and describe the pathogenesis natural history, evolutionand complications of atherosclerosis and IHD

Clinical Topics

PHASE III/II

Sl. No.	IM No	Topic	
Topic: Heart Failure			
1	IM 1.18	Perform and interpret a 12 lead ECG	
2	IM 1.22	Assist and demonstrate the proper technique in collecting specimens for blood culture	
Topic: Pneumonia			
3	IM 3.16	Describe and enumerate the indications for isolation and barriernursing in patients with pneumonia	
4	IM 3.17	Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and indications for ventilation	
Topic: Fever and febrile syndromes			
5	IM 4.17	Observe and assist in the performance of a bone marrow aspirationand biopsy in a simulated environment	
6	IM 4.19	Assist in the collection of blood and wound cultures	
7	IM 4.20	Interpret a PPD (Mantoux)	
Topic: HIV			
8	IM 6.12	Enumerate the indications for and interpret the results of: pulseoximetry, ABG, Chest Radiograph	CLINICAL
9	IM 6.14	Perform and interpret AFB sputum	CLINICAL
Topic: Hypertension			
10	IM 9.19	Assist in a blood transfusion	CLINICAL
Topic: Acute Kidney Injury and Chronic renal failure			
11	IM 10.22	Describe and discuss the indications, demonstrate in a model andassist in the insertion of a central venous or a dialysis catheter	CLINICAL
Topic: Diabetes Mellitus			
13	IM 11.12	Perform and interpret a capillary blood glucose test	CLINICAL

14	IM 11.13	Perform and interpret a urinary ketone estimation with a dipstick	CLINICAL
15	IM 11.19	Demonstrate and counsel patients on the correct technique toadminister insulin	CLINICAL
16	IM 11.20	Demonstrate to and counsel patients on the correct technique of self-monitoring of blood glucoses	CLINICAL
Topic: Common malignancies			
17	IM 13.8	Perform and demonstrate a physical examination that includes anappropriate general and local examination that excludes the diagnosis, extent spread and complications of cancer	CLINICAL
18	IM 13.10	Generate a differential diagnosis based on the presenting symptomsand clinical features and priorities based on the most likely diagnosis	CLINICAL
19	IM 13.11	Order and interpret diagnostic testing based on the clinical diagnosis including CBC and stool occult blood and prostatespecific antigen	CLINICAL
Topic: Obesity			
20	IM 14.11	Communicate and counsel patient on behavioral, dietary andlifestyle modifications	CLINICAL
21	IM 14.12	Demonstrate an understanding of patient's inability to adhere to lifestyle instructions and counsel them in a non - judgmental way	CLINICAL
Topic: GI bleeding			
22	IM 15.4	Elicit and document and present an appropriate history that identifies the route of bleeding, quantity, grade, volume loss,duration, etiology, comorbid illnesses and risk factors	CLINICAL
23	IM 15.6	Distinguish between upper and lower gastrointestinal bleeding based on the clinical features	CLINICAL
24	IM 15.13	Observe cross matching and blood / blood component transfusion	CLINICAL
25	IM 15.18	Counsel the family and patient in an empathetic non-judgmentalmanner on the diagnosis and therapeutic options	
Topic: Cerebrovascular accident			
26	IM18.17	Counsel patient and family about the diagnosis and therapy in anempathetic manner	CLINICAL

Topic: Poisoning			
27	IM 21.7	Counsel family members of a patient with suspected poisoningabout the clinical and medico legal aspects with empathy	CLINICAL
Topic: The role of the physician in the community			
28	IM 26.15	Identify, discuss and defend, medicolegal, socio-cultural and ethicalissues as they pertain to consent for surgical procedures	CLINICAL
29	IM 26.27	Demonstrate personal grooming that is adequate and appropriatefor health care responsibilities	CLINICAL

Clinical Skill Topics – III Phase Part - II

Sl. No.	Topic	Week
1	Blood Transfusion	1st Week
2	Oxygen therapy	2nd Week
3	Nebulization	3rd Week
4	Lumbar puncture	4th Week
5	Pleural and ascites aspiration	5th Week
6	Cardiac resuscitation	6th Week
7	Peripheral blood smear	7th Week
8	Bedside urine analysis	8th Week
9	Setting up IV and calculating drip rate	9th Week

Teaching - learning methods (theory & postings)

1. Large Group – Lectures (Interactive)
2. Small Group – Practical's / Demonstration
3. Case Scenario
4. Self-Directed Learning
5. OSPE / OSCE
6. AETCOM Module
7. Pandemic Module
8. Innovative Methods (Quiz / Role Play /Seminars / Street Play / Group Discussions

Teaching hours phase wise.

	Theory	Clinical	Tutorial	SDL
Phase-II	20 Hours	08 weeks	-	-
Phase-III/I	20 Hours	03 weeks	30 Hours	10 Hours
Phase-III/II	110 Hours	13weeks	185 Hours	40 Hours

Learner- Doctor programme (Clinical Clerkship)

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

Integrated Teaching with following Departments:

OBG	Surgery	Orthopedic	Ophthalmology
Jaundice in Pregnancy (Bio-chemistry) Diabetes Mellitus in Pregnancy (Bio-chemistry/Pediatric)	GI Bleed/Endoscopy Geriatric Surgery IBD Surgery	Geriatric osteoporosis	Geriatric Ophthalmology Rehabilitation

Remedial measures for slow learners

- Small Group Discussions
- Extra Classes
- Written, Topic wise Tests
- Skill Assessment
- Assignments

AETCOM modules

Subject	Competency Number	Competency
Medicine and Allied Subjects	4.1 A	The student should be able to: Demonstrate ability to communicate to patients in a patient, respectful, nonthreatening, non-judgmental and empathetic manner
	4.1 B	The student should be able to: Communicate diagnostic and therapeutic options to patient and family in a simulated environment
	4.3	The student should be able to: Identify and discuss medico-legal, socio-economic and ethical issues as it pertains to organ donation

Pandemic module (if applied)

Classes- 2 Hours

4.1 Care of patients during Pandemics –Aligned with respiratory medicine

4.2 Emergency Procedures- aligned with emergency medicine

4.3 Death related management – Aligned with respiratory medicine

4.4 Communications and media management

4.5 Intensive Care Management during Pandemics

4.6 Palliative Care during Pandemics – Aligned with respiratory medicine.

1. **Assessment (Formative)**

   Regular Formative Assessment

   - Written Test
   - MCQ Test
   - Viva-voce
   - Skill Assessment
   - Log Book

2. **Internal assessment (Written and Practical Test)**

   PHASE II:

   - Ward Leaving Test
   - Term end Theory Test (60 marks)

   PHASE III/ I:

   - Ward Leaving Test
   - Term end Theory Test (60 marks)
   - OSCE

   PHASE III/ II:

   - Ward Leaving Test
   - Departmental Test – once in two months (8th weekly) (Yearly – 06 Tests)
   - 2 Internal Assessment (100 marks each)
   - Prelims (100marks)
   - Practical (clinical case discussion, Viva voce)
   - OSCE
   - ATECOM module-05% of theory paper

Topic distribution of paper I & II including AETCOM Question

Department of Medicine

Topic Distribution of Paper I & II:

Med. Paper-I (Total Marks-100)

Topics

1. Clinical Methods in the practice of medicine.
2. Common symptoms of disease.
3. Nutrition / Exposure in Physical and Chemical Agents.
4. Infections.
5. Hematology.
6. Cardiovascular System.
7. Gastro-Internal Tract
8. Emergency Medicine.
9. Neurological System.
10. AETCOM Module 4.1

Med.Paper-II (Total Marks-100)

Topics

1. Nephrology and Urinary System.
2. Connective Tissue Disorders
3. Endocrines
4. Geriatrics
5. Bio-Medical Waste.
6. Psychiatry.
7. Dermatology and Sexually Transmitted Diseases
8. Tuberculosis and Respiratory Diseases.
9. AETCOM Module 4

Marks Distribution: Paper I

Type of Questions	Number of Questions	Marks for each question	Total marks
MCQS	20	01 (one)	20
Essay Type Questions	02	10	20
Short Essay types questions, Including AETCOM Module 4.1	06	05	30
Short Answers	10	03	30
TOTAL			**100**

Paper II

Type of Questions	Number of Questions	Marks for each question	Total marks
MCQS	20	01 (one)	20
Essay Type Questions	02	10	20
Short Essay types questions, Including AETCOM Module 4.3	06	05	30
Short Answers	10	03	30
TOTAL			**100**

Practical Examination (200 marks)

1. Long case: 01 (70 marks)
2. Short case: 02 (35 x 2 = 70 marks)
3. OSCE: 20marks
4. Viva-voce: (10 x 4 = 40 marks)
    - Instruments
    - Specimens & Charts
    - Drugs
    - X-ray & CT Scan & MRI

Reference book list with latest edition

1. Harrison's Principles of Internal Medicine
2. Davidson's Principles and Practice of Medicine
3. Hutchison's Clinical Methods
4. P. S. Shankar's Clinical Methods
5. Chamberlain's Symptoms and Signs in Clinical Medicine
6. API Book of Medicine
7. Macleod's Clinical Examination

Department of Dermatology

GOAL

The main goal of undergraduate teaching in Dermatology, Venereology and Leprosy is to train the student in such a way that he/she acquires knowledge and skills to diagnose and treat common dermatoses, and refer complications of common dermatoses or emergencies or rare diseases to a specialist.

OBJECTIVES

At the end of the course in Dermatology, Venereology and Leprosy, the student should demonstrate the following knowledge and skills:

A. Knowledge

1. Clinical manifestations and complications of common dermatological conditions and emergencies
2. Relevant investigations to confirm the diagnosis of common dermatoses
3. Pharmacology of commonly used topical preparations and systemic drugs in Dermatology, Venereology and Leprosy
4. Various therapeutic options (both medical and surgical) available for a given disease and selection of appropriate therapy after discussing the same with patients and/or their relatives
5. Recognition of need for referral in case of complications developed during the treatment of common dermatoses, or emergencies, or rare diseases.

B. Skills

1. Elicitation of relevant and correct clinical history and presenting it in a chronological order
2. Complete clinical examination and demonstration of diagnostic clinical signs and/or tests that will help in arriving at the correct diagnosis of common dermatoses and emergencies
3. Simple side-lab procedures or tests required to make bedside diagnoses
4. Method of application of various topical preparations and compresses used in the treatment of common dermatoses

TOPICS

Sl. No	Topic	No. of competency	Domain	No. of teaching sessions
DR1	Acne	03	K & S	1
DR2	Vitiligo	02	K & S	1
DR3	Papulosquamous disorders	03	K & S	1
DR4	Lichen Planus	02	K & S	1
DR5	Scabies	03	K & S	1
DR6	Pediculosis	02	K & S	1
DR7	Fungal infections	03	K & S	1
DR8	Viral infections	07	K & S	2
DR9	Leprosy	07	K & S	4
DR10	STDs	11	K & S	3
DR11	HIV	03	K & S	1
DR12	Dermatitis and Eczema	07	K & S	2
DR13	Vesiculobullous lesions	03	K & S	1
DR14	Urticaria & Angioedema	05	K & S	1
DR15	Pyoderma	04	K & S	1
DR16	Collagen vascular diseases	02	K & S	1
DR17	Nutritional Deficiencies and the skin	04	K & S	1
DR18	Systemic diseases and the skin	02	K & S	1

Sl. No	Integrated Specialty	Vertical/Horizontal	Domain	No. of teaching hours
AN4.2	Human anatomy	Vertical	K	01
PA34.1	Pathology	Vertical	K & S	01
MI4.3 7.2	Microbiology	Vertical	K	01
PH1.46 1.57	Pharmacology	Vertical	K	01
PE31.4	Pediatrics	Vertical	S	01

MUST KNOW TOPICS

Topic 1: Acne

- Enumerate the causative and risk factors of acne
- Identify and grade the various common types of acne
- Describe the treatment and preventive measures for various kinds of acne

Topic 2: Vitiligo

- Identify and differentiate vitiligo from other causes of hypopigmented lesions
- Describe the treatment of vitiligo

Topic 3: Papulosquamous disorders

- Identify and distinguish psoriatic lesions from other causes
- Demonstrate the grattage test
- Enumerate the indications for and describe the various modalities of treatment of psoriasis including topical, systemic and phototherapy

Topic 4: Lichen Planus

- Identify and distinguish lichen planus lesions from other causes
- Enumerate and describe the treatment modalities for lichen planus

Topic 5: Scabies

- Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies in adults and children
- Identify and differentiate scabies from other lesions in adults and children
- Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies

Topic 6: Pediculosis

- Describe the etiology pathogenesis and diagnostic features of pediculosis in adults and children
- Identify and differentiate pediculosis from other skin lesions in adults and children

Topic 7: Fungal Infections

- Describe the etiology, microbiology, pathogenesis and clinical presentation and diagnostic features of dermatophytes in adults and children
- Identify Candida species in fungal scrapings and KOH mount

- Describe the pharmacology and action of antifungal (systemic and topical) agents.
- Enumerate side effects of antifungal therapy

Topic 8: Viral Infections

- Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of common viral infections of the skin in adults and children
- Identify and distinguish herpes simplex and herpes labial is from other skin lesions
- Identify and distinguish herpes zoster and varicella from other skin lesions
- Identify and distinguish viral warts from other skin lesions
- Identify and distinguish moll scum contagious from other skin lesions
- Enumerate the indications, describe the procedure and perform a Tzanck smear
- Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for common viral illnesses of the skin

Topic 9: Leprosy

- Classify, describe the epidemiology, etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of Leprosy.
- Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination
- Enumerate the indications and observe the performance of a slit skin smear in patients with leprosy
- Enumerate, describe and identify lepra reactions and supportive measures and therapy of lepra reactions
- Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines
- Describe the treatment of Leprosy based on the WHO guidelines
- Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma.

Topic 10: Sexually Transmitted Diseases

- Identify and classify syphilis based on the presentation and clinical manifestations
- Identify spirochete in a dark ground microscopy.

- Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis
- Describe the prevention of congenital syphilis
- Counsel in a non-judgmental and empathetic manner patients on prevention of sexually transmitted disease
- Describe the etiology, diagnostic and clinical features of non- syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)
- Identify and differentiate based on the clinical features non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)
- 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)
- Describe the syndromic approach to ulcerative sexually transmitted disease
- Describe the etiology, diagnostic and clinical features and management of gonococcal and non-gonococcal urethritis
- Describe the etiology, diagnostic and clinical features and management of vaginal discharge

Topic 11: HIV

- Describe the etiology, pathogenesis and clinical features of the dermatologic manifestations of HIV and its complications including opportunistic infections
- Identify and distinguish the dermatologic manifestations of HIV, its complications, opportunistic infections and adverse reactions
- Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for dermatologic lesions in HIV

NICE TO KNOW TOPICS

Topic 12: Dermatitis and Eczema

- Describe the etiopathogenesis of eczema.
- Identify eczema and differentiate it from lichenification and changes of aging
- Classify and grade eczema.
- Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the treatment of eczema.

- Define erythroderma. Enumerate and identify the causes of erythroderma. Discuss the treatment.
- Identify and distinguish exfoliative dermatitis from other skin lesions.
- Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions.

Topic 13: Vesiculobullous Lesions

- Distinguish bulla from vesicles
- Demonstrate the Tzanck test, nikolsky sign and bulla spread sign
- Calculate the body surface area of involvement of vesiculobullous lesions

Topic 14: Urticaria/ Angioedema

- Describe the etiology, pathogenesis and clinical precipitating features and classification of Urticaria and angioedema
- Identify and distinguish urticarial from other skin lesions
- Demonstrate dermographism
- Identify and distinguish angioedema from other skin lesions
- Enumerate the indications and describe the pharmacology indications and adverse reactions of drugs used in the urticaria and angioedema

Topic 15: Pyoderma

- Identify and distinguish folliculitis impetigo and carbuncle from other skin lesions
- Identify staphylococcus on a gram stain
- Enumerate the indications and describe the pharmacology, indications and adverse reactions of topical and systemic drugs used in treatment of pyoderma
- Enumerate the indications for surgical referral

DESIRABLE TO KNOW TOPICS

Topic 16: Collagen Vascular disease

- Identify and distinguish skin lesions of SLE
- Identify and distinguish Raynaud's phenomenon

Topic 17: Nutritional Deficiencies and Skin

- Enumerate and identify the cutaneous findings in vitamin A deficiency
- Enumerate and describe the various skin changes in Vitamin B complex deficiency

- Enumerate and describe the various changes in Vitamin C deficiency
- Enumerate and describe the various changes in Zinc deficiency

Topic 18: Systemic diseases and Skin

- Enumerate the cutaneous features of Type 2 diabetes
- Enumerate the cutaneous features of hypo/hyper-thyroidism

INTEGRATED TEACHING

Topic 1: Human Anatomy

- AN 4.2: Describe structure & function of skin with its appendages
- AN 4.4: Describe modifications of deep fascia with its functions
- AN 4.5: Explain principles of skin incisions

Topic 2: Pathology

- PA34.1: Describe the risk factors, pathogenesis, pathology and natural history of squamous cell carcinoma of the skin
- PA34.2: Describe the risk factors, pathogenesis, pathology and natural history of basal cell carcinoma of the skin
- PA34.3: Describe the distinguishing features between a nevus and melanoma. Describe the etiology, pathogenesis, risk factors, morphology, clinical features and metastases of melanoma
- PA34.4: Identify, distinguish and describe common tumors of the skin

Topic 3: Microbiology

- MI4.3: Describe the etio-pathogenesis of Skin and soft tissue infections and discuss the clinical course, and the laboratory diagnosis.
- MI7.2: Describe the etio-pathogenesis and discuss the laboratory diagnosis of sexually transmitted infections. Recommend preventive measures, wherever relevant.

Topic 4: Pharmacology

- PH 1.46: Describe the mechanisms of action, types, doses, side effects, indications and contraindications of anti leprotic drugs
- PH 1.57: Describe drugs used in skin disorders

Topic 5: Pediatrics

1. PH 31.4: Identify Atopic dermatitis and manage

Teaching hours allotted to Department of Dermatology during third phase part two [III/II Final year]

Lectures	**:**	**13hours**
Small group teaching	**:**	**17hours**
Self-directed learning	**:**	**10 hours**
Total	**:**	**40 hours**
Clinical postings in III/II	**:**	**6 weeks**

Remedial measures for slow learners:
Additional clinic posting/assignments
One to one discussion and problem solving

Assessment:

Formative at the end of capsule course and clinical postings, and summative at the end of the course

A. Theory

1. Problem solving MCQs
2. Structured long questions
3. Problem solving long questions
4. Short answer questions

B. Practical

1. Short cases
2. OSCE

Internal assessment: Part of Medicine subject.

Allotted internal assessment marks are 12/100 in theory & 12/100 in practical/ clinicals. The theory component test will be conducted by the department and submitted to General Medicine for consolidation.

Final exam pattern: Part of Paper-II [25% of total marks of paper II will be dermatology, 25 /100]

Reference book list with latest edition:

1. Roxburg's common skin diseases, 19th edition
2. Jopling's handbook of leprosy, 7th edition
3. Tropical venereology by Arya and Osaba, 2nd edition
4. IADVL's Concise Textbook of Dermatology, 1st edition

Department of Psychiatry

Sl. No	Competencies	Topic	Objectives	Types of Teaching Methods
1	PS 1.1 to PS 1.4	Doctor Patient Relationship	Develop rapport and empathy with patients. Describe the elements of communication. In a simulated context, demonstrate the dissemination of bad news. Explain and demonstrate the significance of confidentiality in inpatient sessions.	1 – Lecture (1.1) 1 - SGD- (1.2 -1.4)
2	PS 2.1 to PS 2.5	Overview of Mental Health -2	Define stress and discuss its components and causes. Explain the role of time management, study skills, a healthy diet, and sleep-wake routines in stress reduction. Define and distinguish between normalcy and abnormalcy. Define and discuss the principles and components of learning, memory, personality development and emotions	2 – Lectures (2.1 – 2.3 & 2.4-2.5)
3	PS 3.1 to PS 3.12	Introduction to Psychiatry - 1 Introduction to Psychiatry - 2	Describe the evolution of psychiatry as a medical specialty, its history, and its impact on society. Build rapport, articulate, and record the history, as well as the significant signs and symptoms of prevalent mental disorders. Distinguish psychotic and non-psychotic disorder. Conduct a mini mental status examination. Describe the complex interactions between biological, psychological, and social factors that contribute to mental illnesses	2 – Lectures (3.1 -3.5 & 3.6-3.12)

			List and describe the magnitude, aetiology, clinical features, and essential investigations for patients with organic mental illnesses Enumerate the appropriate conditions for specialist referral in patients with psychiatric disorders	
4	PS 4.1 to PS 4.7	Alcohol Use Disorder Other Substance Use Disorders substance Induced Psychotic Disorders	Describe the magnitude and cause of alcohol and other substance use disorders. Also, identify, and record their clinical characteristics, investigations, and its treatment. Explain the approach to treatment of alcohol use disorder using behavioural therapy Enumerate the pharmacologic basis and side effects of drugs used in alcohol and substance abuse Enumerate the appropriate conditions for specialist referral inpatients with psychotic disorder	1 – Lecture (4.1-4.2) 1 – SGD (4.5-4.7) & 1 – SDL (4.5-4.7)
5	PS 5.1 to PS 5.6	Schizophrenic and Other Psychotic Disorders History and Etiology Clinical Features, Diagnostic Classification, Management	Enumerate, elicit, and document history and clinical features in schizophrenia. Also, discuss regarding its magnitude and causative factors. Discuss regarding the approach to treatment t of schizophrenia (pharmacological and non-pharmacological) In a simulated setting, demonstrate family education for a patient suffering from schizophrenia. List the prerequisites for referring patients with psychotic illnesses to a specialist.	3 – Lectures (5.1-5.2) & 2- SGD (5.4-5.6)
6	PS 6.1 to PS 6.7	Depression– Clinical Features, Diagnostic Classification, Management	Elicit, and document the history and clinical features in patients with depression Classify the magnitude and etiology of depression and describe it.	2 – Lectures (6.1-6.4 & 6.5-6.7)

			Discuss the approach to a case of depression, including the investigations required, its interpretation, as well as pharmacological and non-pharmacological treatment options available. Describe the pharmacologic basis and side effects of Anti-depressants. In a simulated setting, demonstrate family education for a patient suffering with depressive disorder.	
7	PS 7.1 to PS 7.7	Bipolar Disorder- Clinical Features , Classification & Management	Enumerate, elicit, and document history and clinical features of bipolar disorder. Also, discuss regarding its classification, magnitude and causative factors. Discuss the approach to a BPAD case, including necessary investigations, interpretation, and pharmacological and non-pharmacologic treatment options. Describe the pharmacologic basis and side effects of Mood stabilizers List the conditions or red flag signs for referring patient with bipolar disorder to a specialist.	2 – Lectures (7.1-7.2 & 7.3-7.4) & 3 - SGD (7.5-7.7)
8	PS 8.1 to PS 8.7	Anxiety Disorder &OCD- Generalised Anxiety Disorder, Panic Disorder, OCD	Enumerate, elicit, and document history and clinical features of Anxiety disorder. Also, discuss regarding its magnitude and causative factors. Discuss the approach to a patient with anxiety disorders, including investigations needed, pharmacological and non-pharmacologic treatment options. Describe the pharmacologic basis and side effects of Anxiolytics. Discuss the conditions or red flag signs for referring patients with Anxiety disorder to a specialist.	3 – Lectures (8.1-8.2, 8.3-8.4 & 8.5-8.7)
9	PS 9.1 to PS 9.7	Stress Related Disorders	Enumerate, elicit, and document history and clinical features of stress related disorder. Also, discuss regarding its magnitude and causative factors.	1 - Lecture (9.5) & 1- SGD (9.5-9.7)

			Discuss the approach to a patient with stress related disorders, including investigations needed, pharmacological, behavioural and psychosocial therapy Describe the pharmacologic basis and side effects of drugs used in stress related disorders Discuss the conditions or red flag signs for referring patients with stress related disorder to a specialist.	
10	PS 10.1 to PS 10.7	Somatoform Disorders	Enumerate, elicit, and document history and clinical features of somatoform, dissociative and conversion disorders. Also, discuss regarding its, magnitude and etiological factors Discuss the approach to a patient with somatoform disorders, including investigations needed, pharmacological, behavioural and psychosocial therapy Demonstrate family education in a patient with somatoform, dissociative and conversion disorders in a simulated environment Discuss the appropriate conditions for specialist referral in patients with somato form dissociative and conversion disorder	1 – Lecture (10.1-10.7)
11	PS 11.1 to PS 11.7	Personality Disorders	Enumerate, elicit, and document history and clinical features of personality disorders. Also, discuss regarding its, magnitude, types and etiological factors Discuss the approach to a patient with personality disorders, including investigations needed, pharmacological, behavioural and psychosocial therapy Discuss regarding the pharmacologic basis and side effects of drugs used in personality disorders Demonstrate family education in a patient with personality disorders in a simulated environment	1 – Lecture (11.11-11.7)

12	PS 12.1 to PS 12.7	Psychosomatic Disorders	Enumerate, elicit, and document history and clinical features of psychosomatic disorders. Also, discuss regarding its, magnitude, and etiological factors Discuss the approach to a patient with psychosomatic disorders, including investigations needed, pharmacological, behavioural and psychosocial therapy Demonstrate family education in a patient with psychosomatic disorders in a simulated environment Enumerate the appropriate conditions for specialist referral	1 – Lecture (12.1-12.7)
13	PS 13.1 to PS 13.7	Psychosexual And Gender Identity Disorder	Enumerate, elicit, and document history and clinical features of psychosexual and gender identity disorders. Also, discuss regarding its, magnitude, and etiological factors Discuss the approach to a patient with psychosexual and gender identity disorders, including investigations needed, pharmacological, behavioural and psychosocial therapy Demonstrate family education in a patient with psychosexual and gender identity disorders in a simulated environment Enumerate the appropriate conditions for specialist referral	1 – Lecture (13.1-13.7)
14	PS 14.1 to PS 14.6	Psychiatric Disorders In Childhood & Adolescence- Adhd, Asd, Other Childhood Disorders	Enumerate, elicit, and document history and clinical features of psychiatric disorders occurring in childhood and adolescence. Also, discuss regarding its, magnitude, and etiological factors Describe the treatment of stress related disorders including behavioural, psychosocial and pharmacologic therapy Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment	1 – Lecture (14.1-14.4) & 2- SGD (14.5-14.6)

			Discuss the pharmacologic basis and side effects of drugs used in psychiatric disorders occurring in childhood and adolescence Discuss the conditions or red flag signs for referring to a specialist.	
15	PS 15.1 to PS 15.4	Mental Retardation	Elicit and document a history and clinical examination and choose appropriate investigations in a patient with mental retardation Describe the aetiology and magnitude of mental retardation Discuss intelligence quotient and various tests for its measurement Describe the psychosocial interventions and treatment used in intellectual disability	1 – Lecture (15.1-15.2) & 1- SDL (15.3-15.4)
16	PS 16.1 to PS 16.5	Psychiatric Disorders in the elderly	Enumerate the signs and symptoms of common psychiatric disorders in old age like dementia, depression and psychosis Describe the aetiology and magnitude of psychiatric illness in the elderly Discuss the pharmacological, psychosocial and behavioural interventions Enumerate the appropriate conditions for specialist referral in psychiatric disorders in the elderly	1 – Lecture (16.1-16.5)
17	PS 17.1 to PS 17.3	Psychiatric Emergencies	Explain the signs and symptoms that indicate a psychiatric emergency (such a deliberate self-harm, or violent behaviour). Explain the initial steps for managing and stabilising psychiatric emergencies. Enumerate the appropriate conditions for specialist referral in patients with psychiatric emergencies	1 –SDL (17.1-17.3)

18	PS 18.1 to PS 18.3	Therapeutics-Pharmacological & No pharmacological	Describe the pharmacology, indications, dose and side effects of psychotropic Discuss regarding the electroconvulsive therapy Enumerate the principles and role of psychosocial interventions and rehabilitation in psychiatric illness	2 – SDL (18.3) 2- SGD (18.3)
19	PS 19.1 to PS 19.6	Miscellaneous	Describe the relevance, role and status of community psychiatry Discuss the legal and ethical issues in Psychiatry Enumerate the salient features of the National mental health programme and prevalent mental health laws in India Explain the concept and principles of community education, mental health promotion (positive mental health), and preventive psychiatry. Discuss the clinical manifestations and guidelines for management of mental illness that arises during and after disasters.	1 – Lecture (19.1-19.6)

Teaching Learning Methods

Total hours allotted

1. **Lectures : 13 hours**
2. **Small Group Teaching : 17 hours**
3. **Self-directed Learning : 10 hours**
4. **Total : 40 hours**

Clinical postings:	**Phase III/I (Part One)**	=	**2 weeks**
	Phase III/II (Part Two)	=	**4 weeks**
	Total	=	**6 weeks**

Assessment

- Internal assessment marks allotted to Psychiatry is 13 marks in theory which will be conducted by the department.
- Clinical ward leaving tests will be conducted at the end of the postings and converted to 13 marks and sent to General Medicine for consolidation

Theory :13/100

Clinicals : 13/100

University examination will have Medicine & Allied Paper – 2 to have Medicine 50%, Psychiatry 25% and Dermatology 25% Questions.

Department of Pediatrics

Goals:

At end of training on pediatrics, the student should be able to:

1. Assess and promote optimal growth, development and nutrition of children and adolescents and identify deviations from normal.
2. Recognize and provide emergency and routine ambulatory and First Level Referral Unit care for neonates, infants, children and adolescents and refer as may be appropriate.
3. Perform procedures as indicated for children of all ages in the primary care setting.
4. Recognize children with special needs and refer appropriately.
5. Promote health and prevent diseases in children.
6. Participate in National Programmes related to child health and in conformation with the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Strategy.
7. Communicate appropriately and effectively.
8. Describe the normal Growth and Development during fetal life, Neonatal period, Childhood and Adolescence and the deviations thereof.
9. Describe the common Pediatric disorders and emergencies in terms of Epidemiology, Etiopathogenesis, Clinical manifestations, Diagnosis and also describe the rational therapy and rehabilitation services.
10. Workout age related requirements of calories, nutrients, fluids, dosages of drugs etc. in health and disease.
11. Describe preventive strategies for common infectious disorders, Malnutrition, Genetic and Metabolic disorders, Poisonings, Accidents and Child abuse.
12. Outline national programs related to child health including Immunization programs.
13. Take detailed Pediatric and Neonatal history and conduct an appropriate physical examination of children and neonates, make clinical diagnosis,
14. Conduct common bedside investigative procedures, interpret common laboratory investigations, plan and institute therapy.
15. Take anthropometric measurements, resuscitate newborn, prepare oral rehydration solution, perform tuberculin test, administer vaccines available under current National programs, perform venesection, start intravenous fluids and provide nasogastric feeding.
16. Must have seen diagnostic procedures such as lumbar puncture, liver and kidney biopsy, bone marrow aspiration, pleural and ascitic tap, if not performed, and must know all steps of each procedure.
17. 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, provide correct guidance and counselling about breastfeeding and Complementary feeding.
18. Provide ambulatory care to all not so sick children, identify indications for specialized/ inpatient care and ensure timely referral to those who require hospitalization.

19. PEDIATRICS (CODE: PE)

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

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Common problems related to Growth		**Number of competencies: (06)**			**Number of procedures that require certification: (NIL)**				
PE2.1	Discuss the etio-pathogenesis, clinical features and management of a child who fails to thrive	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE2.2	Assessment of a child with failing to thrive including eliciting an appropriate history and examination	S	SH	Y	Bedside clinics	Skills Station			
Number	**Competency The student should be able to**	**Domain K/S/A/C**	**Level K/KH/ SH/P**	**Core Y/N**	**Suggested Teaching Learning methods**	**Suggested Assessment methods**	**Number required to certify P**	**Vertical Integration**	**Horizontal Integration**
PE2.3	Counselling a parent with failing to thrive child	A/C	SH	Y	OSPE	Document in Log book		AETCOM	
PE2.4	Discuss the etio-pathogenesis, clinical features and management of a child with short stature	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE2.5	Assessment of a child with short stature: Elicit history, perform examination, document and present	S	SH	Y	Bedside clinics, Skill lab	Skill Assessment			
PE2.6	Enumerate the referral criteria for growth related problems	K	K	Y	Small group discussion	Written/ Viva voce			
Topic: Common problems related to Development -1 (Developmental delay , Cerebral palsy)		**Number of competencies:(08)**			**Number of procedures that require certification: (NIL)**				
PE3.1	Define, enumerate and discuss the causes of developmental delay and disability including intellectual disability in children	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE3.2	Discuss the approach to a child with developmental delay	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE3.3	Assessment of a child with developmental delay - Elicit document and present history	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE3.4	Counsel a parent of a child with developmental delay	S	SH	Y	DOAP session	Document in Log Book			
PE3.5	Discuss the role of the child developmental unit in management of developmental delay	K	K	N	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
PE3.6	Discuss the referral criteria for children with developmental delay	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE3.7	Visit a Child Developmental Unit and observe its functioning	S	KH	Y	Lecture, Small group discussion	Log book Entry		Community Medicine	
PE3.8	Discuss the etio-pathogenesis, clinical presentation and multi- disciplinary approach in the management of Cerebral palsy	K	KH	Y	Lecture, Small group, Bedside clinics	Written/ Viva voce			Physical Medicine & Rehabilitation
Topic: Common problems related to Development-2 (Scholastic backwardness, Learning Disabilities , Autism , ADHD)		**Number of competencies: (06)**			**Number of procedures that require certification: (NIL)**				
PE4.1	Discuss the causes and approach to a child with scholastic backwardness	K	K	N	Lecture, Small group discussion	Written			
PE4.2	Discuss the etiology, clinical features, diagnosis and management of a child with Learning Disabilities	K	K	N	Lecture, Small group discussion	Written			
PE4.3	Discuss the etiology, clinical features, diagnosis and management of a child with Attention Deficit Hyperactivity Disorder (ADHD)	K	K	N	Lecture, Small group discussion	Written			
PE4.4	Discuss the etiology, clinical features, diagnosis and management of a child with Autism	K	K	N	Lecture, Small group discussion	Written			

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE4.5	Discuss the role of Child Guidance clinic in children with Developmental problems	K	K	N	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	
PE4.6	Visit to the Child Guidance Clinic	S	KH	N	Lecture, Small group discussion	Document in Log Book			
Topic: Common problems related to behavior		**Number of competencies: (11)**			**Number of procedures that require certification: (NIL)**				
PE5.1	Describe the clinical features, diagnosis and management of thumb sucking	K	K	N	Lecture, Small group discussion	Written			
PE5.2	Describe the clinical features, diagnosis and management of Feeding problems	K	K	N	Lecture, Small group discussion	Written			
PE5.3	Describe the clinical features, diagnosis and management of nail biting	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
PE5.4	Describe the clinical features, diagnosis and management of Breath Holding spells	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE5.5	Describe the clinical features, diagnosis and management of temper tantrums	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE5.6	Describe the clinical features, diagnosis and management of Pica	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
PE5.7	Describe the clinical features, diagnosis and management of Fussy infant	K	K	N	Lecture, Small group discussion	Written			Psychiatry
PE5.8	Discuss the etiology, clinical features and management of Enuresis	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
PE5.9	Discuss the etiology, clinical features and management of Encopresis	K	K	N	Lecture, Small group discussion	Written/ Viva voce			

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE5.10	Discuss the role of child guidance clinic in children with behavioural problems and the referral criteria	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE5.11	Visit to Child Guidance Clinic and observe functioning	K	KH	N	Lecture, Small group discussion	Document in Log Book			
Topic: Adolescent Health & common problems related to Adolescent Health		**Number of competencies: (13)**			**Number of procedures that require certification: (NIL)**				
PE6.1	Define Adolescence and stages of adolescence	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE6.2	Describe the physical, physiological and psychological changes during adolescence (Puberty)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.3	Discuss the general health problems during adolescence	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE6.4	Describe adolescent sexuality and common problems related to it	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.5	Explain the Adolescent Nutrition and common nutritional problems	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.6	Discuss the common Adolescent eating disorders (Anorexia Nervosa, Bulimia)	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.7	Describe the common mental health problems during adolescence	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.8	Respecting patient privacy and maintaining confidentiality while dealing with adolescence	A	SH	Y	Bedside clinics	Document in log book			AETCOM

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE6.9	Perform routine Adolescent Health checkup including eliciting history, performing examination including SMR (Sexual Maturity Rating), growth assessments (using Growth charts) and systemic exam including thyroid and Breast exam and the HEADSS screening	S	SH	Y	Bedside clinics	Skills station			
PE6.10	Discuss the objectives and functions of AFHS (Adolescent Friendly Health Services) and the referral criteria	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
PE6.11	Enumerate the importance of obesity and other NCD in adolescents		KH	Y	DOAP session	Document in Log Book			
PE6.12	Enumerate the importance of obesity and other NCD in adolescents	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE6.13	Enumerate the prevalence and the importance of recognition of sexual drug abuse in adolescents and children	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
Topic: To promote and support optimal Breast feeding for Infants		**Number of competencies: (11)**			**Number of procedures that require certification: (01)**				
PE7.1	Awareness on the cultural beliefs and practices of breast feeding	K	K	N	Lecture, Small group discussion	Viva			Obstetrics & Gynaecology
PE7.2	Explain the physiology of lactation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology	

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

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Complementary Feeding		**Number of competencies : (05)**			**Number of procedures that require certification: (NIL)**				
PE8.1	Define the term Complementary Feeding	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
Number	**Competency The student should be able to**	**Domain K/S/A/C**	**Level K/KH/ SH/P**	**Core Y/N**	**Suggested Teaching Learning methods**	**Suggested Assessment methods**	**Number required to certify P**	**Vertical Integration**	**Horizontal Integration**
PE8.2	Discuss the principles, the initiation, attributes, frequency, techniques and hygiene related to Complementary Feeding including IYCF	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
PE8.3	Enumerate the common complimentary foods	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
PE8.4	Elicit history on the Complementary Feeding habits	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment		Community Medicine	
PE8.5	Counsel and educate mothers on the best practices in Complimentary Feeding	A/C	SH	Y	DOAP session	Document in Log Book		Community Medicine	
Topic: Normal nutrition, assessment and monitoring		**Number of competencies : (07)**			**Number of procedures that require certification: (NIL)**				
PE9.1	Describe the age related nutritional needs of infants, children and adolescents including micronutrients and vitamins	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine, Biochemistry	
PE9.2	Describe the tools and methods for assessment and classification of nutritional status of infants, children and adolescents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE9.3	Explains the Calorific value of common Indian foods	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE9.4	Elicit document and present an appropriate nutritional history and perform a dietary recall	S	SH	Y	Bedside clinic, Skills lab	Skill Assessment		Community Medicine	
PE9.5	Calculate the age related calorie requirement in Health and Disease and identify gap	S	SH	Y	Bedside clinics, Small group discussion	Skill assessment		Community Medicine	
PE9.6	Assess and classify the nutrition status of infants, children and adolescents and recognize deviations	S	SH	Y	Bedside clinic, Small group discussion	Skill Assessment		Community Medicine	
PE9.7	Plan an appropriate diet in health and disease	S	SH	N	Bedside clinic, Small group discussion	Document in logbook		Community Medicine	
Topic: Provide nutritional support , assessment and monitoring for common nutritional problems		**Number of competencies: (06)**			**Number of procedures that require certification: (NIL)**				
PE10.1	Define and describe the etio-pathogenesis, classify including WHO classification, clinical features, complication and management of Severe Acute Malnourishment (SAM) and Moderate Acute Malnutrition (MAM)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Biochemistry	
PE10.2	Outline the clinical approach to a child with SAM and MAM	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Biochemistry	
PE10.3	Assessment of a patient with SAM and MAM, diagnosis, classification and planning management including hospital and community based intervention, rehabilitation and prevention	S	SH	Y	Bedside clinics, Skills lab	Skill station		Physiology, Biochemistry	

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE10.4	Identify children with under nutrition as per IMNCI criteria and plan referral	S	SH	Y	DOAP session	Document in log book		Community Medicine	
PE10.5	Counsel parents of children with SAM and MAM	S	SH	Y	Bedside clinic, Skills Station	Document in Log book		AETCOM	
PE10.6	Enumerate the role of locally prepared therapeutic diets and ready to use therapeutic diets	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
Topic: Obesity in children		**Number of competencies: (06)**			**Number of procedures that require certification: (01)**				
PE11.1	Describe the common etiology, clinical features and management of obesity in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Biochemistry, Pathology	
PE11.2	Discuss the risk approach for obesity and discuss the prevention strategies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	
PE11.3	Assessment of a child with obesity with regard to eliciting history including physical activity, charting and dietary recall	S	SH	Y	Bedside clinics, Standardized patients	Document in log book			
PE11.4	Examination including calculation of BMI, measurement of waist hip ratio, identifying external markers like acanthosis, striae, pseudogynaecomastia etc	S	SH	Y	Bedside clinics, Standardized patients, Videos	Skills Station			
PE11.5	Calculate BMI, document in BMI chart and interpret	S	P	Y	Bedside clinics, Small group discussion	Document in log book	3		
PE11.6	Discuss criteria for referral	K	K	Y	Small group discussion	Viva voce			

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Micronutrients in Health and disease-1 (Vitamins ADEK, B Complex and C)		**Number of competencies: (21)**			**Number of procedures that require certification: (NIL)**				
PE12.1	Discuss the RDA, dietary sources of Vitamin A and their role in Health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE12.2	Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin A	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE12.3	Identify the clinical features of dietary deficiency / excess of Vitamin A	S	SH	Y	Bedside clinics, Small group discussion	Document in log book		Biochemistry	
PE12.4	Diagnose patients with Vitamin A deficiency, classify and plan management	S	SH	N	Bedside clinics, Skill Station	Document in log book		Biochemistry	
PE12.5	Discuss the Vitamin A prophylaxis program and their recommendations	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE12.6	Discuss the RDA, dietary sources of Vitamin D and their role in health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE12.7	Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin D (Rickets and Hypervitaminosis D)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry, Physiology, Pathology	
PE12.8	Identify the clinical features of dietary deficiency of Vitamin D	S	SH	Y	Bedside clinics, Skills lab	Document in log book		Biochemistry, Physiology, Pathology	
PE12.9	Assess patients with Vitamin D deficiency, diagnose, classify and plan management	S	SH	Y	Bedside clinics	Document in log book		Biochemistry, Physiology, Pathology	

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE12.10	Discuss the role of screening for Vitamin D deficiency	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE12.11	Discuss the RDA, dietary sources of Vitamin E and their role in health and disease	K	K	N	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE12.12	Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin E	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE12.13	Discuss the RDA, dietary sources of Vitamin K and their role in health and disease	K	K	N	Lecture, Small group discussion	Written/ Viva voce		Biochemistry, Physiology, Pathology	
PE12.14	Describe the causes, clinical features, diagnosis management and prevention of deficiency of Vitamin K	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Biochemistry, Physiology, Pathology	
PE12.15	Discuss the RDA, dietary sources of Vitamin B and their role in health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE12.16	Describe the causes, clinical features, diagnosis and management of deficiency of B complex Vitamins	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE12.17	Identify the clinical features of Vitamin B complex deficiency	S	SH	Y	Bedside clinics, Skills lab	Document in log book		Biochemistry	
PE12.18	Diagnose patients with Vitamin B complex deficiency and plan management	S	SH	Y	Bedside clinics, Skills lab	Document in log book		Biochemistry	
PE12.19	Discuss the RDA , dietary sources of Vitamin C and their role in Health and disease	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE12.20	Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin C (scurvy)	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE12.21	Identify the clinical features of Vitamin C deficiency	S	SH	N	Bedside clinics, Skill lab	Document in log book		Biochemistry	

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Micronutrients in Health and disease -2: Iron, Iodine, Calcium, Magnesium		**Number of competencies: (14)**			**Number of procedures that require certification: (NIL)**				
PE13.1	Discuss the RDA, dietary sources of Iron and their role in health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Biochemistry	
PE13.2	Describe the causes, diagnosis and management of Fe deficiency	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Biochemistry	
PE13.3	Identify the clinical features of dietary deficiency of Iron and make a diagnosis	S	SH	Y	Bedside clinics, Skills lab	Document in log book		Pathology, Biochemistry	
PE13.4	Interpret hemogram and Iron Panel	S	SH	Y	Bedside clinic, Small group discussion	Skill Assessment		Pathology, Biochemistry	
PE13.5	Propose a management plan for Fe deficiency anaemia	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment		Pathology, Pharmacology	
PE13.6	Discuss the National anaemia control program and its recommendations	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology Community Medicine	
PE13.7	Discuss the RDA , dietary sources of Iodine and their role in Health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE13.8	Describe the causes, diagnosis and management of deficiency of Iodine	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE13.9	Identify the clinical features of Iodine deficiency disorders	S	SH	N	Lecture, Bedside clinic	Written/ Viva voce		Biochemistry	
PE13.10	Discuss the National Goiter Control program and their recommendations	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry, Community Medicine	
PE13.11	Discuss the RDA, dietary sources of Calcium and their role in health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE13.12	Describe the causes, clinical features, diagnosis and management of Ca Deficiency	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE13.13	Discuss the RDA, dietary sources of Magnesium and their role in health and disease	K	K	N	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
PE13.14	Describe the causes, clinical features, diagnosis and management of Magnesium Deficiency	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Biochemistry	
Topic: Toxic elements and free radicals and oxygen toxicity		**Number of competencies: (05)**			**Number of procedures that require certification (NIL)**				
PE14.1	Discuss the risk factors, clinical features, diagnosis and management of Lead Poisoning	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
PE14.2	Discuss the risk factors, clinical features, diagnosis and management of Kerosene ingestion	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE14.3	Discuss the risk factors, clinical features, diagnosis and management of Organophosphorous poisoning	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Medicine
PE14.4	Discuss the risk factors, clinical features, diagnosis and management of paracetamol poisoning	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
PE14.5	Discuss the risk factors, clinical features, diagnosis and management of Oxygen toxicity	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Fluid and electrolyte balance		**Number of competencies:(07)**			**Number of procedures that require certification:(NIL)**				
PE15.1	Discuss the fluid and electrolyte requirement in health and disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE15.2	Discuss the clinical features and complications of fluid and electrolyte imbalance and outline the management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE15.3	Calculate the fluid and electrolyte requirement in health	S	SH	Y	Bedside clinics, Small group discussion	Skill Assessment			
PE15.4	Interpret electrolyte report	S	SH	Y	Bedside clinics, Small group discussion	Skill Assessment			
PE15.5	Calculate fluid and electrolyte imbalance	S	SH	Y	Bedside clinics, Small group discussion	Skill Assessment			
PE15.6	Demonstrate the steps of inserting an IV cannula in a model	S	SH	Y	Skills Lab	Mannequin			
PE15.7	Demonstrate the steps of inserting an interosseous line in a mannequin	S	SH	Y	Skills Lab	Mannequin			
Topic: Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Guideline		**Number of competencies:(03)**			**Number of procedures that require certification: (NIL)**				
PE16.1	Explain the components of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines and method of Risk stratification	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Number	Competency The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE16.2	Assess children <2 months using IMNCI Guidelines	S	SH	Y	DOAP session	Document in log Book			
PE16.3	Assess children >2 to 5 years using IMNCI guidelines and Stratify Risk	S	SH	Y	DOAP session	Document in log Book			
Topic: The National Health programs		**NHM Number of competencies:(02)**			**Number of procedures that require certification: (NIL)**				
PE17.1	State the vision and outline the goals, strategies and plan of action of NHM and other important national programs pertaining to maternal and child health including RMNCH A+, RBSK, RKSK, JSSK mission Indradhanush and ICDS	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
PE17.2	Analyse the outcomes and appraise the monitoring and evaluation of NHM	K	KH	Y	Debate	Written/ Viva voce		Community Medicine	
Topic: The National Health Programs: RCH		**Number of competencies: (08)**			**Number of procedures that require certification: (NIL)**				
PE18.1	List and explain the components, plan, outcome of Reproductive Child Health (RCH) program and appraise its monitoring and evaluation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	Obstetrics & Gynaecology
PE18.2	Explain preventive interventions for child survival and safe motherhood	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	Obstetrics & Gynaecology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE18.3	Conduct Antenatal examination of women independently and apply at-risk approach in antenatal care	S	SH	Y	Bedside clinics	Skill station		Community Medicine	Obstetrics & Gynaecology
PE18.4	Provide intra-natal care and conduct a normal delivery in a simulated environment	S	SH	Y	DOAP session, Skills lab	Document in Log Book		Community Medicine	Obstetrics & Gynaecology
PE18.5	Provide intra-natal care and observe the conduct of a normal delivery	S	SH	Y	DOAP session	Document in Log Book			Obstetrics & Gynaecology
PE18.6	Perform Postnatal assessment of newborn and mother, provide advice on breast feeding, weaning and on family planning	S	SH	Y	Bed side clinics, Skill Lab	Skill Assessment		Community Medicine	Obstetrics & Gynaecology
PE18.7	Educate and counsel caregivers of children	A	SH	Y	Postnatal ward, standardized patient	Skill Assessment		AETCOM	
PE18.8	Observe the implementation of the program by visiting the Rural Health Centre	S	KH	Y	Bed side clinics, Skill Lab	Document in log book		Community Medicine	Obstetrics & Gynaecology
Topic: National Programs, RCH - Universal Immunizations program		**Number of competencies: (16)**			**Number of procedures that require certification: (01)**				
PE19.1	Explain the components of the Universal Immunization Program and the National Immunization Program	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine, Microbiology Biochemistry	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE19.2	Explain the epidemiology of Vaccine preventable diseases	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine, Microbiology Biochemistry	
PE19.3	Vaccine description with regard to classification of vaccines, strain used, dose, route, schedule, risks, benefits and side effects, indications and contraindications	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine, Microbiology Biochemistry	
PE19.4	Define cold chain and discuss the methods of safe storage and handling of vaccines	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine, Microbiology Biochemistry	
PE19.5	Discuss immunization in special situations – HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, travelers	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine, Microbiology Biochemistry	
PE19.6	Assess patient for fitness for immunization and prescribe an age appropriate immunization schedule	S	P	Y	Out Patient clinics Skills lab	Skill Assessment	5		
PE19.7	Educate and counsel a patient for immunization	A/C	SH	Y	DOAP session	Document in Log Book			
PE19.8	Demonstrate willingness to participate in the National and sub national immunisation days	A	SH	Y	Lecture, Small group discussion	Document in Log Book		Community Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE19.9	Describe the components of safe vaccine practice – Patient education/ counselling; adverse events following immunization, safe injection practices, documentation and Medico-legal implications	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			AETCOM
PE19.10	Observe the handling and storing of vaccines	S	SH	Y	DOAP session	Written/ Viva voce			
PE19.11	Document Immunization in an immunization record	S	SH	Y	Out Patient clinics, Skills lab	Skill assessment			
PE19.12	Observe the administration of UIP vaccines	S	SH	Y	DOAP session	Document in Log Book		Community Medicine	
PE19.13	Demonstrate the correct administration of different vaccines in a mannequin	S	SH	Y	DOAP session	Document in Log Book			
PE19.14	Practice Infection control measures and appropriate handling of the sharps	S	SH	Y	DOAP session	Document in Log Book			
PE19.15	Explain the term implied consent in Immunization services	K	K	Y	Small group discussion	Written/ Viva voce			
PE19.16	Enumerate available newer vaccines and their indications including pentavalent pneumococcal, rotavirus, JE, typhoid IPV & HPV	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
Topic: Care of the Normal New born, and High risk New born 165		**Number of competencies: (20)**			**Number of procedures that require certification: (NIL)**				
PE20.1	Define the common neonatal nomenclatures including the classification and describe the characteristics of a Normal Term Neonate and High Risk Neonates	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE20.2	Explain the care of a normal neonate	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.3	Perform Neonatal resuscitation in a manikin	S	SH	Y	DOAP session	Log book entry of Performance			
PE20.4	Assessment of a normal neonate	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE20.5	Counsel / educate mothers on the care of neonates	A/C	SH	Y	DOAP session	Log book documentation			
PE20.6	Explain the follow up care for neonates including Breast Feeding, Temperature maintenance, immunization, importance of growth monitoring and red flags	S	SH	Y	DOAP session	Log book entry			Obstetrics & Gynaecology
PE20.7	Discuss the etiology, clinical features and management of Birth asphyxia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.8	Discuss the etiology, clinical features and management of respiratory distress in New born including meconium aspiration and transient tachypnoea of newborn	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.9	Discuss the etiology, clinical features and management of Birth injuries	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.10	Discuss the etiology, clinical features and management of Hemorrhagic disease of New born	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE20.11	Discuss the clinical characteristics, complications and management of Low birth weight (preterm and Small for gestation)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.12	Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypothermia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.13	Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypoglycemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.14	Discuss the etiology, clinical features and management of Neonatal hypocalcemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.15	Discuss the etiology, clinical features and management of Neonatal seizures	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.16	Discuss the etiology, clinical features and management of Neonatal Sepsis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.17	Discuss the etiology, clinical features and management of Perinatal infections	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.18	Identify and stratify risk in a sick neonate using IMNCI guidelines	S	SH	Y	DOAP session	Document in Log Book			
PE20.19	Discuss the etiology, clinical features and management of Neonatal hyperbilirubinemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.20	Identify clinical presentations of common surgical conditions in the new born including TEF, esophageal atresia, anal atresia, cleft lip and palate, congenital diaphragmatic hernia and causes of acute abdomen	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Topic: Genito-Urinary system		Number of competencies: (17)			Number of procedures that require certification: (NIL)				
Number	**COMPETENCY The student should be able to**	**Domain K/S/A/C**	**Level K/KH/ SH/P**	**Core Y/N**	**Suggested Teaching Learning methods**	**Suggested Assessment methods**	**Number required to certify P**	**Vertical Integration**	**Horizontal Integration**
PE21.1	Enumerate the etio-pathogenesis, clinical features, complications and management of Urinary Tract infection in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE21.2	Enumerate the etio-pathogenesis, clinical features, complications and management of acute post-streptococcal Glomerular Nephritis in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE21.3	Discuss the approach and referral criteria to a child with Proteinuria	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE21.4	Discuss the approach and referral criteria to a child with Hematuria	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
PE21.5	Enumerate the etio-pathogenesis, clinical features, complications and management of Acute Renal Failure in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE21.6	Enumerate the etio-pathogenesis, clinical features, complications and management of Chronic Renal Failure in Children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE21.7	Enumerate the etio-pathogenesis, clinical features, complications and management of Wilms Tumor	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE21.8	Elicit, document and present a history pertaining to diseases of the Genitourinary tract	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			General Surgery

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE21.9	Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Icthyosis, anasarca	S	SH	Y	Bedside clinics, Skills lab	Document in log book			
PE21.10	Analyse symptom and interpret the physical findings and arrive at an appropriate provisional / differential diagnosis	S	SH	Y	Bedside clinics, Skills lab	Log book			
PE21.11	Perform and interpret the common analytes in a Urine examination	S	SH	Y	Bedside clinics, Skills lab	Skill assessment		Biochemistry, Pathology	
PE21.12	Interpret report of Plain X Ray of KUB	S	SH	Y	Bedside clinics, Skills lab	Log book		Radio diagnosis	
PE21.13	Enumerate the indications for and Interpret the written report of Ultra sonogram of KUB	S	SH	Y	Bedside clinics, Skills lab	Log book		Radio diagnosis	
PE21.14	Recognize common surgical conditions of the abdomen and genitourinary system and enumerate the indications for referral including acute and subacute intestinal obstruction, appendicitis, pancreatitis, perforation intussusception, Phimosis, undescended testis, Chordee, hypospadiasis, Torsion testis, hernia Hydrocele, Vulval Synechiae	S	SH	Y	Bedside clinics, Skills lab	Log book assessment			General Surgery
PE21.15	Discuss and enumerate the referral criteria for children with genitourinary disorder	S	SH	Y	Bedside clinics, Skills lab	Log book assessment			
PE21.16	Counsel / educate a patient for referral appropriately	A/C	SH	Y	DOAP session	Document in Log book		AETCOM	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE21.17	Describe the etiopathogenesis, grading, clinical features and management of hypertension in children	K	KH	Y	Lecture, Small group discussion	Short notes			
Topic: Approach to and recognition of a child with possible Rheumatologic problem		**Number of competencies: (03)**			**Number of procedures that require certification:(NIL)**				
PE22.1	Enumerate the common Rheumatological problems in children. Discuss the clinical approach to recognition and referral of a child with Rheumatological problem	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE22.2	Counsel a patient with Chronic illness	S	SH	N	Bedside clinics Skills lab	Log book			
PE22.3	Describe the diagnosis and management of common vasculitic disorders including Henoch Schonlein Purpura, Kawasaki Disease, SLE, JIA	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
Topic: Cardiovascular system- Heart Diseases		**Number of competencies: (18)**			**Number of procedures that require certification:(NIL)**				
PE23.1	Discuss the Hemodynamic changes, clinical presentation, complications and management of Acyanotic Heart Diseases –VSD, ASD and PDA	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE23.2	Discuss the Hemodynamic changes, clinical presentation, complications and management of Cyanotic Heart Diseases – Fallot's Physiology	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	
PE23.3	Discuss the etio-pathogenesis, clinical presentation and management of cardiac failure in infant and children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	
PE23.4	Discuss the etio-pathogenesis, clinical presentation and management of Acute Rheumatic Fever in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	
PE23.5	Discuss the clinical features, complications, diagnosis, management and prevention of Acute Rheumatic Fever	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	
PE23.6	Discuss the etio-pathogenesis, clinical features and management of Infective endocarditis in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology, Microbiology	
PE23.7	Elicit appropriate history for a cardiac disease, analyse the symptoms e.g. breathlessness, chest pain, tachycardia, feeding difficulty, failing to thrive, reduced urinary output, swelling, syncope, cyanotic spells, Suck rest cycle, frontal swelling in infants. Document and present	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE23.8	Identify external markers of a cardiac disease e.g. Cyanosis, Clubbing, dependent edema, dental	S	SH	Y	Bedside clinics, Skills Lab	Skill Assessment			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
	caries, arthritis, erythema rash, chorea, subcutaneous nodules, Oslers node, Janeway lesions and document								
PE23.9	Record pulse, blood pressure, temperature and respiratory rate and interpret as per the age	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE23.10	Perform independently examination of the cardiovascular system – look for precordial bulge, pulsations in the precordium, JVP and its significance in children and infants, relevance of percussion in Pediatric examination, Auscultation and other system examination and document	S	SH	Y	Bedside clinics, Skills lab	Skill station			
PE23.11	Develop a treatment plan and prescribe appropriate drugs including fluids in cardiac diseases, anti -failure drugs, and inotropic agents	S	SH	Y	Bedside clinics, Skills lab	log book			
PE23.12	Interpret a chest X ray and recognize Cardiomegaly	S	SH	Y	Bedside clinics, Skills lab	Log book entry		Radio diagnosis	
PE23.13	Choose and Interpret blood reports in Cardiac illness	S	P	Y	Bedside clinics, Small group discussion	Log book entry			
PE23.14	Interpret Pediatric ECG	S	SH	Y	Bedside clinics, Skills lab	Log book entry			
PE23.15	Use the ECHO reports in management of cases	S	SH	Y	Bedside clinics	Log book entry		Radio diagnosis	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE23.16	Discuss the indications and limitations of Cardiac catheterization	K	K	N	Small group discussion	Viva voce			
PE23.17	Enumerate some common cardiac surgeries like BT shunt, Potts and Waterston's and corrective surgeries	K	K	N	Small group discussion	Viva voce			
PE23.18	Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter	A	SH	Y	Small group discussion	Document in Log Book		AETCOM	
Topic: Diarrhoeal diseases and Dehydration		**Number of competencies: (17)**			**Number of procedures that require certification:(03)**				
PE24.1	Discuss the etio-pathogenesis, classification, clinical presentation and management of diarrheal diseases in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Microbiology	
PE24.2	Discuss the classification and clinical presentation of various types of diarrheal dehydration	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Microbiology	
PE24.3	Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE24.4	Discuss the types of fluid used in Paediatric diarrheal diseases and their composition	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE24.5	Discuss the role of antibiotics, antispasmodics, anti-secretory drugs, probiotics, anti-emetics in acute diarrheal diseases	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology, Microbiology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE24.6	Discuss the causes, clinical presentation and management of persistent diarrhoea in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE24.7	Discuss the causes, clinical presentation and management of chronic diarrhoea in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE24.8	Discuss the causes, clinical presentation and management of dysentery in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology, Microbiology	
PE24.9	Elicit, document and present history pertaining to diarrheal diseases	S	SH	Y	Bedside clinics, Skills lab	Skill assessment			
PE24.10	Assess for signs of dehydration, document and present	S	SH	Y	Bedside clinics, Skills lab	Skill assessment			
PE24.11	Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and refer	S	SH	Y	Bedside clinics, Skills lab	Document in Log book			
PE24.12	Perform and interpret stool examination including Hanging Drop	S	SH	N	Bedside clinics, Skills lab	Log book		Microbiology	
PE24.13	Interpret RFT and electrolyte report	S	SH	Y	Bedside clinics, Small group discussion	Document in Log Book			
PE24.14	Plan fluid management as per the WHO criteria	S	SH	Y	Bedside clinics, Small group activity	Skills Station			
PE24.15	Perform NG tube insertion in a manikin	S	P	Y	DOAP session	Document in Log book	2		
PE24.16	Perform IV cannulation in a model	S	P	Y	DOAP session	Document in Log book	2		

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

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE26.7	Perform examination of the abdomen, demonstrate organomegaly, ascites etc.	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE26.8	Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis	S	SH	Y	Bedside clinics, Skill lab	Skill Assessment			
PE26.9	Interpret Liver Function Tests, viral markers, ultra sonogram report	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment		Pathology	
PE26.10	Demonstrate the technique of liver biopsy in a Perform Liver Biopsy in a simulated environment	S	SH	Y	DOAP session	Document in log book			
PE26.11	Enumerate the indications for Upper GI endoscopy	K	K	N	Small group discussion	Viva voce			
PE26.12	Discuss the prevention of Hep B infection – Universal precautions and Immunisation	K	KH	Y	Lecture, Small group activity	Written/ Viva voce		Microbiology	
PE26.13	Counsel and educate patients and their family appropriately on liver diseases	A/C	P	Y	Bedside clinics, Skills lab	Document in log book			
Topic: Pediatric Emergencies – Common Pediatric Emergencies		**Number of competencies: (35)**			**Number of procedures that require certification:(10)**				
PE27.1	List the common causes of morbidity and mortality in the under five children	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.2	Describe the etio-pathogenesis, clinical approach and management of cardiorespiratory arrest in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.3	Describe the etio-pathogenesis of respiratory distress in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE27.4	Describe the clinical approach and management of respiratory distress in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.5	Describe the etio-pathogenesis, clinical approach and management of Shock in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.6	Describe the etio-pathogenesis, clinical approach and management of Status epilepticus	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.7	Describe the etio-pathogenesis, clinical approach and management of an unconscious child	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.8	Discuss the common types, clinical presentations and management of poisoning in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.9	Discuss oxygen therapy, in Pediatric emergencies and modes of administration	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.10	Observe the various methods of administering Oxygen	S	KH	Y	Demonstration	Document in log book			
PE27.11	Explain the need and process of triage of sick children brought to health facility	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.12	Enumerate emergency signs and priority signs	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.13	List the sequential approach of assessment of emergency and priority signs	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.14	Assess emergency signs and prioritize	S	SH	Y	DOAP session, Skills lab	Skills Assessment			
15	Assess airway and breathing: recognise signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting	S	P	Y	DOAP session, Skills lab	Skills Assessment	3		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE27.16	Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment	S	P	Y	DOAP session, Skills Lab	Skills Assessment	3		
PE27.17	Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate	S	P	Y	DOAP session, Skills Lab	Skills Assessment	3		
PE27.18	Assess airway and breathing: perform assisted ventilation by Bag and mask in a simulated environment	S	P	Y	DOAP session, Skills lab	Skills Assessment	3		
PE27.19	Check for signs of shock i.e. pulse, Blood pressure, CRT	S	P	Y	DOAP session, Skills Lab	Skills Assessment	3		
PE27.20	Secure an IV access in a simulated environment	S	P	Y	DOAP session, Skills Lab	Skills Assessment	3		
PF27.21	Choose the type of fluid and calculate the fluid requirement in shock	S	P	Y	DOAP session, Small group activity	Skills Assessment	3		
PE27.22	Assess level of consciousness & provide emergency treatment to a child with convulsions/ coma Position an unconscious child Position a child with suspected trauma Administer IV/per rectal Diazepam for a convulsing child in a simulated environment	S	P	Y	DOAP session, Skills Lab	Skills Assessment	3		
PE27.23	Assess for signs of severe dehydration	S	P	Y	Bedside clinics, Skills lab	Skill station	3		
PE27.24	Monitoring and maintaining temperature: define hypothermia. Describe the clinical features, complications and management of Hypothermia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE27.25	Describe the advantages and correct method of keeping an infant warm by skin to skin contact	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.26	Describe the environmental measures to maintain temperature	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.27	Assess for hypothermia and maintain temperature	S	SH	Y	Skills lab	Skills Assessment			
PE27.28	Provide BLS for children in manikin	S	P	Y	Skills Lab		3		
PE.27.29	Discuss the common causes, clinical presentation, medico-legal implications of abuse	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.30	Demonstrate confidentiality with regard to abuse	A	SH	Y	Skills lab, standardized patients	Skills Station			
PE27.31	Assess child for signs of abuse	S	SH	Y	DOAP session, Skills lab	Log book			
PE27.32	Counsel parents of dangerously ill / terminally ill child to break a bad news	S	SH	Y	DOAP session	Document in Log book			
PE27.33	Obtain Informed Consent	S	SH	Y	DOAP session	Document in Log book			
PE27.34	Willing to be a part of the ER team	A	SH	Y	DOAP session	Document in Log book			
PE27.35	Attends to emergency calls promptly	A	SH	Y	DOAP session	Document in Log Book			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Respiratory system		**Number of competencies: (20)**			**Number of procedures that require certification: (NIL)**				
PE28.1	Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.2	Discuss the etio-pathogenesis of Pharyngo Tonsillitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.3	Discuss the clinical features and management of Pharyngo Tonsillitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.4	Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.5	Discuss the etio-pathogenesis, clinical features and management of Epiglottitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.6	Discuss the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.7	Discuss the etiology, clinical features and management of Stridor in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.8	Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.9	Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor	S	SH	Y	Bedside clinics, skill lab	Skill Assessment		ENT	
PE28.10	Perform otoscopic examination of the ear	S	SH	Y	DOAP session	Skills Assessment		ENT	
PE28.11	Perform throat examination using tongue depressor	S	SH	Y	DOAP session	Skills Assessment		ENT	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE28.12	Perform examination of the nose	S	SH	Y	DOAP session	Skills Assessment		ENT	
PE28.13	Analyse the clinical symptoms and interpret physical findings and make a provisional / differential diagnosis in a child with ENT symptoms	S	SH	Y	Bedside clinics	Skills Assessment			
PE28.14	Develop a treatment plan and document appropriately in a child with upper respiratory symptoms	S	SH	Y	Bedside clinics	Skills Assessment			
PE28.15	Stratify risk in children with stridor using IMNCI guidelines	S	SH	Y	Bedside clinics	Log book documentation			
PE28.16	Interpret blood tests relevant to upper respiratory problems	S	SH	N	Bedside clinics, Small group discussion	Log book			
PE28.17	Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management	S	SH	Y	Bedside clinics, Small group discussion	Skills Assessment		ENT, Radio diagnosis	
	Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays								
PE28.18	Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of lower respiratory infections including bronchiolitis, wheeze associated LRTI Pneumonia and empyema	S	SH	Y	Bedside clinics, Small group discussion, Lecture	Skill Assessment/ Written/ Viva voce			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE28.19	Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of asthma in children	S	SH	Y	Bedside clinics, Small group discussion, Lecture	Skill Assessment/ Written/ Viva voce		Respiratory Medicine	
PE28.20	Counsel the child with asthma on the correct use of inhalers in a simulated environment	S	SH	Y	Bedside clinics, Small group discussion, Lecture	Skills Assessment/ Written/ Viva voce		Respiratory Medicine	
Topic: Anemia and other Hemato-oncologic disorders in children		**Number of competencies: (20)**			**Number of procedures that require certification: (NIL)**				
PE29.1	Discuss the etio-pathogenesis, clinical features, classification and approach to a child with anaemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
PE29.2	Discuss the etio-pathogenesis, clinical features and management of Iron Deficiency anaemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
PE29.3	Discuss the etiopathogenesis, clinical features and management of VIT B12, Folate deficiency anaemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
PE29.4	Discuss the etio-pathogenesis, clinical features and management of Hemolytic anemia, Thalassemia Major, Sickle cell anaemia, Hereditary spherocytosis, Auto-immune hemolytic anaemia and hemolytic uremic syndrome	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
PE29.5	Discuss the National Anaemia Control Program	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE29.6	Discuss the cause of thrombocytopenia in children: describe the clinical features and management of Idiopathic Thrombocytopenic Purpura (ITP)	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE29.7	Discuss the etiology, classification, pathogenesis and clinical features of Hemophilia in children	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE29.8	Discuss the etiology, clinical presentation and management of Acute Lymphoblastic Leukemia in children	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE29.9	Discuss the etiology, clinical presentation and management of lymphoma in children	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE29.10	Elicit, document and present the history related to Hematology	S	SH	Y	Bedside clinics, Skills lab	Skills Station			
PE29.11	Identify external markers for hematological disorders e.g.. Jaundice, Pallor, Petechiae purpura, Ecchymosis, Lymphadenopathy, bone tenderness, loss of weight, Mucosal and large joint bleed	S	SH	Y	Bedside clinics, Skills lab	Skill assessment			
PE29.12	Perform examination of the abdomen, demonstrate organomegaly	S	SH	Y	Bedside clinics, Skills lab	Skill assessment			
PE29.13	Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis	S	SH	Y	Bedside clinics, Skill lab	Skill assessment			
PE29.14	Interpret CBC, LFT	S	SH	Y	Bedside clinics, Skills lab	Skill assessment			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE29.15	Perform and interpret peripheral smear	S	SH	Y	DOAP session	Document in log book			
PE29.16	Discuss the indications for Hemoglobin electrophoresis and interpret report	K	K	N	Small group discussion	Viva voce		Biochemistry	
PE29.17	Demonstrate performance of bone marrow aspiration in manikin	S	SH	Y	Skills lab	Document in log Book			
PE29.18	Enumerate the referral criteria for Hematological conditions	S	SH	Y	Bedside clinics, Small group activity	Viva voce			
PE29.19	Counsel and educate patients about prevention and treatment of anemia	A/C	SH	Y	Bedside clinics, Skills lab	Document in log book			
PE29.20	Enumerate the indications for splenectomy and precautions	K	K	N	Small group Activity	Viva voce			
Topic: Systemic Pediatrics-Central Nervous system		**Number of competences: (23)**			**Number of procedures that require certification:(NIL)**				
PE30.1	Discuss the etio-pathogenesis, clinical features , complications, management and prevention of meningitis in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE30.2	Distinguish bacterial, viral and tuberculous meningitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE30.3	Discuss the etio-pathogenesis, classification, clinical features, complication and management of Hydrocephalus in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE30.4	Discuss the etio-pathogenesis, classification, clinical features, and management of Microcephaly in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.5	Enumerate the Neural tube defects. Discuss the causes, clinical features, types, and management of Neural Tube defect	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.6	Discuss the etio-pathogenesis, clinical features, and management of Infantile hemiplegia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.7	Discuss the etio-pathogenesis, clinical features, complications and management of Febrile seizures in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.8	Define epilepsy. Discuss the pathogenesis, clinical types, presentation and management of Epilepsy in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.9	Define status Epilepticus. Discuss the clinical presentation and management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.10	Discuss the etio-pathogenesis, clinical features and management of Mental retardation in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.11	Discuss the etio-pathogenesis, clinical features and management of children with cerebral palsy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.12	Enumerate the causes of floppiness in an infant and discuss the clinical features, differential diagnosis and management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.13	Discuss the etio-pathogenesis, clinical features, management and prevention of Poliomyelitis in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE30.14	Discuss the etio-pathogenesis, clinical features and management of Duchene muscular dystrophy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.15	Discuss the etio-pathogenesis, clinical features and management of Ataxia in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.16	Discuss the approach to and management of a child with headache	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.17	Elicit document and present an age appropriate history pertaining to the CNS	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE30.18	Demonstrate the correct method for physical examination of CNS including identification of external markers. Document and present clinical findings	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE30.19	Analyse symptoms and interpret physical findings and propose a provisional / differential diagnosis	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE30.20	Interpret and explain the findings in a CSF analysis	S	SH	Y	Small group discussion	Log book		Microbiology	
PE30.21	Enumerate the indication and discuss the limitations of EEG, CT, MRI	K	K	N	Bedside clinics	Log book			
PE30.22	Interpret the reports of EEG, CT, MRI	S	SH	Y	Bedside clinics, Skills lab	Log book		Radio diagnosis	
PE30.23	Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Allergic Rhinitis , Atopic Dermatitis, Bronchial Asthma , Urticaria Angioedema		**Number of competencies: (12)**			**Number of procedures that require certification: (NIL)**				
PE31.1	Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE31.2	Recognize the clinical signs of Allergic Rhinitis	S	SH	Y	Bedside clinics' Skill Lab	Skill Assessment		ENT	
PE31.3	Describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in Children	K	KH	Y	Lecture Small group discussion	Written/ Viva voce		ENT	
PE31.4	Identify Atopic dermatitis and manage	S	SH		Bedside clinics Skills lab	Skill Assessment		Dermatology, Venereology & Leprosy	
PE31.5	Discuss the etio-pathogenesis, clinical types, presentations, management and prevention of childhood Asthma	K	KH	Y	Lecture Small group discussion	Written/ Viva voce			
PE31.6	Recognise symptoms and signs of Asthma	S	SH	Y	Bedside clinic, Small group activity	Skill Assessment			
PE31.7	Develop a treatment plan for Asthma appropriate to clinical presentation & severity	S	SH	Y	Bedside clinic, Small group activity	Skill Assessment			
PE31.8	Enumerate criteria for referral	K	KH	Y	Bedside clinic, Small group activity	Written/ Viva voce			
PE31.9	Interpret CBC and CX Ray in Asthma	S	SH	Y	Bedside clinic, Small group activity	Skill Assessment			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE31.10	Enumerate the indications for PFT	K	K	N	Bedside clinic, Small group activity	Viva voce			
PE31.11	Observe administration of Nebulisation	S	SH	Y	DOAP session	Document in log book			
PE31.12	Discuss the etio-pathogenesis, clinical features and complications and management of Urticaria Angioedema	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Chromosomal Abnormalities		**Number of competencies: (13)**			**Number of procedures that require certification: (NIL)**				
PE32.1	Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Down's Syndrome	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
PE32.2	Identify the clinical features of Down's Syndrome	S	SH	Y	Bedside clinics, Skills lab	log book		General Medicine	
PE32.3	Interpret normal Karyotype and recognize Trisomy 21	S	SH	Y	Bedside clinics, Skills lab	Log book			General Medicine
PE32.4	Discuss the referral criteria and Multidisciplinary approach to management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE32.5	Counsel parents regarding 1. Present child 2. Risk in the next pregnancy	A/C	SH	N	Bedside clinics, Skills lab	Log book			
PE32.6	Discuss the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Turner's Syndrome	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Obstetrics & Gynaecology	
PE32.7	Identify the clinical features of Turner Syndrome	S	SH	N	Bedside clinics, Skills lab	Log book		General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE32.8	Interpret normal Karyotype and recognize the Turner Karyotype	S	SH	N	Bedside clinics, Skills lab	log book		General Medicine, Obstetrics & Gynaecology	
PE32.9	Discuss the referral criteria and multidisciplinary approach to management of Turner Syndrome	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			General Medicine, Obstetrics & Gynaecology
PE32.10	Counsel parents regarding 1. Present child 2. Risk in the next pregnancy	A/C	SH	N	Bedside clinics, Skills lab	Log book			
PE32.11	Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Kline filter Syndrome	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
PE32.12	Identify the clinical features of Klineferlter Syndrome	S	SH	N	Bedside clinics, Skills lab	Log book		General Medicine	
PE32.13	Interpret normal Karyotype and recognize the Klineferlter Karyotype	S	SH	N	Bedside clinics, Skills lab	Log book		General Medicine	
Topic: Endocrinology		**Number of competencies: (11)**			**Number of procedures that require certification: (02)**				
PE33.1	Describe the etio-pathogenesis clinical features, management of Hypothyroidism in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE33.2	Recognize the clinical signs of Hypothyroidism and refer	S	SH	Y	Bedside clinics, Skill Lab	Skill Assessment			
PE33.3	Interpret and explain neonatal thyroid screening report	S	SH	Y	Bedside clinics, Small group discussion	Skill Assessment			

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE33.4	Discuss the etio-pathogenesis, clinical types, presentations, complication and management of Diabetes mellitus in children	K	KH	Y	Lecture, Small group discussions	Written/ Viva voce			
PE33.5	Interpret Blood sugar reports and explain the diagnostic criteria for Type 1 Diabetes	S	SH	Y	Bedside clinic, small group activity	Skill Assessment			
PE33.6	Perform and interpret Urine Dip Stick for Sugar	S	P	Y	DOAP session	Skill Assessment	3	Biochemistry	
PE33.7	Perform genital examination and recognize Ambiguous Genitalia and refer appropriately	S	SH	Y	Bedside clinic Skills lab	Skill Assessment			
PE33.8	Define precocious and delayed Puberty	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE33.9	Perform Sexual Maturity Rating (SMR) and interpret	S	SH	Y	Bedside clinics Skills Lab	Skill Assessment			
PE33.10	Recognize precocious and delayed Puberty and refer	S	SH	Y	Bedside clinics Skills Lab	log book			
PE33.11	Identify deviations in growth and plan appropriate referral	S	P	Y	Bedside clinics Skills Lab	log book	2		
Topic: Vaccine preventable Diseases - Tuberculosis		**Number of competencies: (20)**			**Number of procedures that require certification: (03)**				
PE34.1	Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	Respiratory Medicine

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE34.2	Discuss the various diagnostic tools for childhood tuberculosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	Respiratory Medicine
PE34.3	Discuss the various regimens for management of Tuberculosis as per National Guidelines	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology Community Medicine, Pharmacology	Respiratory Medicine
PE34.4	Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology Community Medicine, Pharmacology	Respiratory Medicine
PE34.5	Able to elicit, document and present history of contact with tuberculosis in every patient encounter	S	SH	Y	Bedside clinics, Skill lab	Skill Assessment			Respiratory Medicine
PE34.6	Identify a BCG scar	S	P	Y	Bedside clinics, Skills lab	Skill Assessment	3	Microbiology	Respiratory Medicine
PE34.7	Interpret a Mantoux test	S	P	Y	Bedside clinics Skills lab	Skill assessment	3	Microbiology	Respiratory Medicine
PE34.8	Interpret a Chest Radiograph	S	SH	Y	Bedside clinics Skills lab	Skill assessment		Radio diagnosis	Respiratory Medicine
PE34.9	Interpret blood tests in the context of laboratory evidence for tuberculosis	S	SH	N	Bedside clinics, Small group discussion	log book		Microbiology	Respiratory Medicine
PE34.10	Discuss the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum , CSF, FNAC	K	KH	Y	Bedside clinics, Small group discussion	Written/ Viva voce		Microbiology	Respiratory Medicine

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PE34.11	Perform AFB staining	S	P	Y	DOAP session	Log book/Journal	3	Microbiology	Respiratory Medicine
PE34.12	Enumerate the indications and discuss the limitations of methods of culturing M.Tuberculii	K	KH	Y	Small group discussion	Written/ Viva voce		Microbiology	Respiratory Medicine
PE34.13	Enumerate the newer diagnostic tools for Tuberculosis including BACTEC CBNAAT and their indications	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
PE34.14	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of fever in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE34.15	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with exanthematous illnesses like Measles, Mumps, Rubella & Chicken pox	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE34.16	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Diphtheria, Pertussis, Tetanus.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE34.17	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Typhoid	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	

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

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH- Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation									
Integration									
Human Anatomy									
AN25.4	Describe embryological basis of: 1) atrial septal defect, 2)ventricular septal defect , 3)Fallot's tetralogy & 4) tracheo-oesophageal fistula	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics	Physiology
AN25.5	Describe developmental basis of congenital anomalies, transposition of great vessels, dextrocardia, patent ductus arteriosus and coarctation of aorta	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics	Physiology
AN25.9	Demonstrate surface marking of lines of pleural reflection, Lung borders and fissures, Trachea, Heart borders, Apex beat & surface projection of valves of heart	K/S	SH	Y	Practical	Viva voce/ skill assessment		General Medicine, Pediatrics	Physiology
AN63.2	Describe anatomical basis of congenital hydrocephalus	K	KH	N	Lecture	Written		Pediatrics	Physiology
AN64.3	Describe various types of open neural tube defects with its embryological basis	K	KH	N	Lecture	Written/ Viva voce		Obstetrics & Gynaecology Pediatrics	
AN74.1	Describe the various modes of inheritance with examples	K	KH	Y	Lecture	Written		General Medicine, Pediatrics	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
AN74.2	Draw pedigree charts for the various types of inheritance & give examples of diseases of each mode of inheritance	K	KH	Y	Lecture	Written		General Medicine, Pediatrics	
AN74.4	Describe the genetic basis & clinical features of Achondroplasia, Cystic Fibrosis, Vitamin D resistant rickets, Hemophilia, Duchene's muscular dystrophy & Sickle cell anaemia	K	KH	N	Lecture	Written		General Medicine, Pediatrics	
AN75.1	Describe the structural and numerical chromosomal aberrations	K	KH	Y	Lecture	Written		Pediatrics	
AN75.2	Explain the terms mosaics and chimeras with example	K	KH	N	Lecture	Written		Pediatrics	
AN75.3	Describe the genetic basis & clinical features of Prader Willi syndrome, Edward syndrome & Patau syndrome	K	KH	N	Lecture	Written		Pediatrics	
AN75.4	Describe genetic basis of variation; polymorphism and mutation	K	KH	Y	Lecture	Written		Pediatrics	
AN75.5	Describe the principles of genetic counselling	K	KH	Y	Lecture	Written		Pediatrics, Obstetrics & Gynaecology	
Physiology									
PY11.6	Describe physiology of Infancy	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PY11.9	Interpret growth charts	K	KH	Y	Small group teaching	Practical/ OSPE/ Viva voce		Pediatrics	
PY11.10	Interpret anthropometric assessment of infants	K	KH	Y	Small group teaching	Practical/OSPE/Viva voce		Pediatrics	

Biochemistry									
Number	**COMPETENCY** **The student should be able to**	**Domain K/S/A/C**	**Level K/KH/ SH/P**	**Core Y/N**	**Suggested Teaching Learning methods**	**Suggested Assessment methods**	**Number required to certify P**	**Vertical Integration**	**Horizontal Integration**
BI5.3	Describe the digestion and absorption of dietary proteins	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
BI5.4	Describe common disorders associated with protein metabolism	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
BI7.3	Describe gene mutations and basic mechanism of regulation of gene expression	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
BI7.4	Describe applications of recombinant DNA technology, PCR in the diagnosis and treatment of diseases with genetic basis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics, General Medicine	
BI8.1	Discuss the importance of various dietary components and explain importance of dietary fibre	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics, Pathology	
BI8.2	Describe the types and causes of protein energy malnutrition and its effects	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics, Pathology	
BI8.5	Summarize the nutritional importance of commonly used items of food including fruits and vegetables. (macro-molecules & its importance)	K	KH	Y	Lecture , Small group discussion	Written/ Viva voce		Community Medicine, General Medicine, Pediatrics	
BI10.5	Describe antigens and concepts involved in vaccine development	K	KH	Y	Lecture , Small group discussion	Written/ Viva voce		Pathology, Pediatrics, Microbiology	

Pathology									
Number	**COMPETENCY** **The student should be able to**	**Domain K/S/A/C**	**Level K/KH/ SH/P**	**Core Y/N**	**Suggested Teaching Learning methods**	**Suggested Assessment methods**	**Number required to certify P**	**Vertical Integration**	**Horizontal Integration**
PA12.2	Describe the pathogenesis of disorders caused by protein calorie malnutrition and starvation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry, Pediatrics	
PA21.2	Classify and describe the etiology, pathogenesis and pathology of vascular and platelet disorders including ITP and hemophilias	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PA28.12	Define, classify and describe the genetics, inheritance etiology, pathogenesis, pathology, laboratory, urinary findings, distinguishing features, progression and complications of cystic disease of the kidney	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics	
PA28.14	Classify and describe the etiology, genetics, pathogenesis, pathology, presenting features, progression and spread of renal tumors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PA31.4	Enumerate and describe the etiology, hormonal dependency and pathogenesis of gynecomastia	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pediatrics, General Medicine	
PA35.2	Classify and describe the etiology, genetics, pathogenesis, pathology, presentation sequelae and complications of CNS tumors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	

Microbiology									
Number	**COMPETENCY The student should be able to**	**Domain K/S/A/C**	**Level K/KH/ SH/P**	**Core Y/N**	**Suggested Teaching Learning methods**	**Suggested Assessment methods**	**Number required to certify P**	**Vertical Integration**	**Horizontal Integration**
MI1.8	Describe the mechanisms of immunity and response of the host immune system to infections	K	KH	Y	Lecture	Written/ Viva voce		Pediatrics	Pathology
MI1.9	Discuss the immunological basis of vaccines and describe the Universal Immunisation schedule	K	KH	Y	Lecture	Written/ Viva voce		Paediatrics	
MI1.10	Describe the immunological mechanisms in immunological disorder (hypersensitivity, autoimmune disorders and immunodeficiency states) and discuss the laboratory methods used in detection	K	KH	Y	Lecture	Written/ Viva voce		Paediatrics	
MI3.1	Enumerate the microbial agents causing diarrhea and dysentery. Describe the epidemiology, morphology, pathogenesis, clinical features, and diagnostic modalities of these agents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Paediatrics	Pathology
MI3.2	Identify the common etiologic agents of diarrhea and dysentery	S	SH	Y	DOAP session	Skill assessment		General Medicine, Paediatrics	
MI5.1	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of meningitis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Paediatrics	Pathology
MI5.2	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of encephalitis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Paediatrics	Pathology
MI5.3	Identify the microbial agents causing meningitis	S	SH	Y	DOAP session	Skill assessment		General Medicine, Paediatrics	

Pharmacology									
Number	**COMPETENCY The student should be able to**	**Domain K/S/A/C**	**Level K/KH/ SH/P**	**Core Y/N**	**Suggested Teaching Learning methods**	**Suggested Assessment methods**	**Number required to certify P**	**Vertical Integration**	**Horizontal Integration**
PH1.12	Calculate the dosage of drugs using appropriate formulae for an individual patient, including children, elderly and patient with renal dysfunction	K/S	SH	Y	Lecture, practical	Written/ Viva voce		Pediatrics, General Medicine	
PH1.43	Describe and discuss the rational use of antimicrobials including antibiotic stewardship program	K	KH	Y	Lecture	Written/ Viva voce		General Medicine Pediatrics	Microbiology
PH1.56	Describe basic aspects of Geriatric and Pediatric pharmacology	K	KH	Y	Lecture	Written/ Viva voce		Pediatrics	
PH2.4	Demonstrate the correct method of calculation of drug dosage in patients including those used in special situations	S	SH	Y	DOAP sessions	Skills assessment		Pharmacology, General Medicine	
Community Medicine									
CM3.3	Describe the aetiology and basis of water borne diseases /jaundice/hepatitis/ diarrheal diseases	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Microbiology General Medicine, Pediatrics	
CM5.1	Describe the common sources of various nutrients and special nutritional requirements according to age, sex, activity, physiological conditions	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics	
CM5.2	Describe and demonstrate the correct method of performing a nutritional assessment of individuals, families and the community by using the appropriate method	S	SH	Y	DOAP session	Skill Assessment		General Medicine, Pediatrics	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
CM5.3	Define and describe common nutrition related health disorders (including macro-PEM, Micro-iron, Zn, iodine, Vit. A), their control and management.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics	
CM5.4	Plan and recommend a suitable diet for the individuals and families based on local availability of foods and economic status, etc in a simulated environment	S	SH	Y	DOAP session	Skill Assessment		General Medicine, Pediatrics	
CM5.5	Describe the methods of nutritional surveillance, principles of nutritional education and rehabilitation in the context of socio- cultural factors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics	
CM5.6	Enumerate and discuss the National Nutrition Policy, important national nutritional Programs including the Integrated Child Development Services Scheme (ICDS) etc	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
CM5.8	Describe and discuss the importance and methods of food fortification and effects of additives and adulteration	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
CM6.1	Formulate a research question for a study	K	KH	Y	Small group, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	
CM6.2	Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data	S	SH	Y	Small group discussion, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
CM6.3	Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs	S	SH	Y	Small group discussion, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	
CM6.4	Enumerate, discuss and demonstrate common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion	S	SH	Y	Small group discussion, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	
CM8.1	Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine, Pediatrics	Microbiology Pathology
CM8.3	Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine, Pediatrics	
CM8.4	Describe the principles and enumerate the measures to control a disease epidemic	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine, Pediatrics	
CM8.5	Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease	K	KH	Y	Small group discussion, Lecture	Written / Viva voce		General Medicine, Pediatrics	
CM9.2	Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates	S	SH	Y	Lecture, Small group discussion, DOAP sessions	Skill assessment		Obstetrics & Gynaecology, Pediatrics	

CM10.1	Describe the current status of Reproductive, maternal, newborn and Child Health	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	
CM10.2	Enumerate and describe the methods of screening high risk groups and common health problems	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	
CM10.3	Describe local customs and practices during pregnancy, childbirth, lactation and child feeding practices	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	
CM10.4	Describe the reproductive, maternal, newborn & child health (RMCH); child survival and safe motherhood interventions	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	
CM10.5	Describe Universal Immunization Program; Integrated Management of Neonatal and Childhood Illness (IMNCI) and other existing Programs	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Pediatrics	
Forensic Medicine & Toxicology									
FM1.9	Describe the importance of documentation in medical practice in regard to medicolegal examinations, Medical Certificates and medicolegal reports especially –maintenance of patient case records, discharge summary, prescribed registers to be maintained in Health Centres. -maintenance of medico-legal register like accident register. -documents of issuance of wound certificate -documents of issuance of drunkenness certificate. -documents of issuance of sickness and fitness certificate. -documents for issuance of death certificate.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Radio diagnosis, General Surgery, General Medicine, Paediatrics	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
	-documents of Medical Certification of Cause of Death - Form Number 4 and 4A -documents for estimation of age by physical, dental and radiological examination and issuance of certificate								
FM2.27	Define and discuss infanticide, foeticide and stillbirth	K	KH	Y	Lecture, Small group discussions	Written/ Viva voce		Pediatrics	
FM2.28	Describe and discuss signs of intrauterine death, signs of live birth, viability of foetus, age determination of foetus, DOAP session of ossification centres, Hydrostatic test, Sudden infants death syndrome and Munchausen's syndrome by proxy	K	KH	Y	Lecture, Small group discussions, Autopsy, DOAP session	Written/ Viva voce/ OSCE		Pediatrics, Human Anatomy	
FM3.29	Describe and discuss child abuse and battered baby syndrome	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
Dermatology, Venereology & Leprosy									
DR5.1	Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
DR5.2	Identify and differentiate scabies from other lesions	S	SH	Y	Bedside clinic	Skill assessment		Pediatrics	

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

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
DR17.3	Enumerate and describe the various changes in Vitamin C deficiency	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics,	
DR17.4	Enumerate and describe the various changes in Zinc deficiency	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics, Biochemistry	
Anesthesiology									
AS2.1	Enumerate the indications, describe the steps and demonstrate in a simulated environment basic life support in adults children and neonates	S	SH	N	DOAP session	Skill assessment		General Medicine, Pediatrics	
Psychiatry									
PS14.1	Enumerate and describe the magnitude and etiology of psychiatric disorders occurring in childhood and adolescence	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS14.2	Enumerate, elicit, describe and document clinical features in patients with psychiatric disorders occurring in childhood and adolescence	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pediatrics	
PS14.3	Describe the treatment of stress related disorders including behavioural, psychosocial and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS14.4	Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pediatrics	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PS14.5	Enumerate and describe the pharmacologic basis and side effects of drugs used in psychiatric disorders occurring in childhood and adolescence	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS15.1	Describe the aetiology and magnitude of mental retardation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS15.2	Describe and discuss intelligence quotient and its measurement	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS15.3	Elicit and document a history and clinical examination and choose appropriate investigations in a patient with mental retardation	K/S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pediatrics	
PS15.4	Describe the psychosocial interventions and treatment used in mental retardation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
General Medicine									
IM23.1	Discuss and describe the methods of nutritional assessment in an adult and calculation of caloric requirements during illnesses	K	KH	Y	Lecture, Small group discussions	Written/ Viva voce		Physiology, Biochemistry	Pediatrics
IM23.2	Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital	K	KH	Y	Lecture, Small group discussions	Written/ Viva voce		Physiology, Biochemistry	Pediatrics
IM23.3	Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Biochemistry	Pediatrics
IM23.4	Enumerate the indications for enteral and parenteral nutrition in critically ill patients	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Biochemistry	Pediatrics

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Obstetrics & Gynocology									
OG1.2	Define and discuss perinatal mortality and morbidity including perinatal and neonatal mortality and morbidity audit	K	KH	Y	Lecture, Small group discussion	Short notes		Community Medicine	Pediatrics
OG18.1	Describe and discuss the assessment of maturity of the newborn, diagnosis of birth asphyxia, principles of resuscitation, common problems	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
OG18.2	Demonstrate the steps of neonatal resuscitation in a simulated environment	S	SH	Y	DOAP session	Skill assessment			Pediatrics
OG18.3	Describe and discuss the diagnosis of birth asphyxia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
OG18.4	Describe the principles of resuscitation of the newborn and enumerate the common problems encountered	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
Physical Medicine & Rehabilitation									
PM3.1	Describe and discuss the clinical features, types, evaluation, diagnosis and management of cerebral palsy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	Pediatrics
PM3.2	Recognize, describe and discuss the spectrum of multiple disability : cognitive, motor, visual and hearing in cerebral palsy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
PM3.3	Recognize, describe and discuss the role of special education in children with learning disabilities	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
PM3.4	Demonstrate spasticity, rigidity and dystonia in children with cerebral palsy	S	SH	Y	DOAP session, Small group discussion, Bedside clinic	Skill assessment			Pediatrics
PM3.5	Enumerate the indications and describe the therapies for spasticity including medications, serial casts, nerve blocks, botulinum toxin injections	K	KH	Y	Lecture, Small group discussion			Pharmacology	Pediatrics, Orthopedics
PM3.6	Enumerate the indications and describe prevention of joint subluxations and contractures by proper positioning, and use of special chairs, and appliances	K	KH	Y	DOAP session, Small group discussion, Bedside clinic				Pediatrics
PM3.7	Enumerate the first aid measures to be used in patients with seizures and role of common modalities (moist heat, ultrasound, Short wave diathermy)	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics

Distribution of Teaching Hours for Phase 3 part-I&2 MBBS

a) **Pediatrics Lectures - III/I=20 ,III/II=20 TOTAL=40**

b) **Small Group Learning-III/I=30,III/II=35 TOTAL=65**

c) **Self-Directed learning -III/I=05,III/II=10,TOTAL=15**

Total - 40+65+15=120

Topics of Lectures

Sl. No	Topic	Competencies
1	Hypothyroidism in children.	PE33.1
2	Diabetes mellitus in children.	PE33.4
3	Neonatal sepsis.	PE20.16
4	Neonatal hyper bilirubinemia and prolonged cholesteric jaundice.	PE 20.19
5	Neonatal seizures.	PE 20.15
6	Low birth weight (Preterm and small for gestation) babies	PE 20.11
7	Hemorrhagic disease of new born.	PE20.10
8	Respiratory distress in new born including meconium aspiration and transient tachypnea of new born.	PE20.8
9	Complementary feeding	PE 8.2, 8.3, 8.4
10	LRTI and pneumonias	PE28.18
11	Cyanotic heart diseases- Fallot physiology.	PE23.2
12	Meningitis in children. Distinguish bacterial, viral and tuberculosis meningitis.	PE30.1, PE30.2
13	Microcephaly and hydrocephalus in children.	PE30.3, PE30.4.
14	Developmental delay and disability including intellectual disability in children	PE 3.10
15	Cerebral palsy	PE30.11.
16	Status epilepticus.	PE30.8, PE 30.9
17	Development and the normal developmental mile stones with respect to motor, behaviour, social, adaptive and language	PE1.5
18	Failure to thrive	PE2.1

19	Short stature	PE 2.4
20	Scholastic backwardness and learning disabilities	PE 4.1
21	Behavioural dis orders	PE 5.1, 5.2, 5.3, 5.4
22	Approach to a child with hematuria.	PE 21.4
23	Fluid and electrolyte imbalance and the management.	PE 15.2
24	Duchene Muscular dystrophy.	PE 15.2
25	Acute post streptococcal glomerulonephritis in children.	PE21.2.
26	Approach to a child with proteinuria.	PE 21.3.
27	Physiological changes and General health problems during adolescence	PE 6.2 , 6.3
28	Adolescent sexuality and common problems related to it	PE 6.4
29	Adolescent Nutrition and common nutritional problems	PE 6.5
30	National health programs RCH	PE 18.1, 18.2
31	Stridor in children	PE 28.7
32	Poliomyelitis in children	PE 30.13
33	Acute renal failure in children	
34	Hemophilia	
35	Leukemias in children	
36	Approach to anemias	
37	Thalassemia	
38	Other hemolytic anemias	
39	Chronic liver diseases	
40	Acute hepatitis	
41	Exanthematous illnesses	
42	Malaria	
43	Tuberculosis in children	
44	Dengue fever	
45	Enteric fever	
46	Diarrheal disorders	
47	Rickettsial infections	
48	Enuresis nencopressis	
49	Helmithic infestations	

SCHEME OF EXAMINATION

INTERNAL ASSESSMENT

The internal assessment marks will be out of 100 for theory and out of 100 for clinicals.

Theory (100 marks)

In 2nd professional, one theory examination and in 3rd Professional two theory examinations including preliminary examination shall be conducted. The Preliminary examination preceding the university examination will be similar to the pattern of university examination i.e., one theory paper of 100 marks.

Practical and Viva-voce (100 marks)

In 2nd professional, one practical examination and in 3rd Professional two practical examinations including preliminary examination shall be conducted. The Preliminary examination preceding the university examination will be similar to the pattern of university examination.

THEORY

Assessments	Marks	Reduced to
First internals (At the end of 7th term)	50	20
First internals (At the end of 8th term)	50	20
Third internals (Preliminary)	100	40
Continuous assessment viz Log book, AETCOM,	20	20
Final internal assessment marks		**100**

PRACTICAL AND VIVA VOCE

Assessment	Marks	Reduced to
First Internals (At the end of Clinical posting)	20	20
Certifiable competencies + Clinical Record book	10	10
Second Internals (At the end of clinical postings)	20	20
Certifiable competencies + Clinical record book	10	10
Third internals (Preliminary)	100	40
Final internal assessment marks		**100**

UNIVERSITY EXAMINATION

ELIGIBILITY FOR EXAMINATION

1. The candidate must have undergone satisfactorily the approved course of the study in the subject within prescribed duration.
2. Should have at least 75% of attendance in theory, 80% attendance in practical in each phase (viz. Phase III part 1 and Phase III part 2) and 75% attendance in AETCOM to become eligible to appear for the examination in the subject.
3. Should have at least 40% of total marks fixed by internal assessment both in theory and practical individually.
4. Should secure 50% marks in aggregate of the total marks combined in theory and practical assigned for IA in the subject.

Written Paper: 100 marks

THEORY EXAMINATION PATTERN			
Type of Questions	**Number of questions**	**Marks for each question**	**Total marks**
MCQS	20	1 (ONE)	20
Structured long Essay type questions	2	10	20
Short Essay types questions	6	5	30
Short Answers questions	10	3	30
Total			**100**

There shall be one theory paper carrying 100 marks and duration of the paper shall be of three hours. (Duration of MCQ examination shall be 25 minutes and there is no negative marking for wrong answers. The MCQ answer script should be collected after 30 minutes)

PRACTICAL EXAMINATION PATTERN				
Sl. NO		**Time for Case Taking**	**Time for Assessment**	**Total Marks**
1	Pediatric Case	20 Minutes	10 Minutes	30
2	Neonatal Case	20 Minutes	10 Minutes	30
3	OSCE	10 Minutes	10 Minutes	20
TABLE VIVA				
4	4 Components	Nutrition Vaccines and Drugs Instruments- procedure X-rays	(05 minutes for assessment)	20
TOTAL MARKS				**100**

Criteria for passing the examination

The candidate shall obtain a cumulative of 50% marks in the University examination including theory and practical and not less than 40% separately in Theory and Practical in order to be declared as passed.

RECOMMENDED READING BOOKS

Textbooks for Pediatrics

1. "Essentials of Pediatrics" by OP Ghai, Vinod K Paul and Piyush Gupta (latest edition)
2. "Care of the Newborn" by Meharban Singh (latest edition)
3. UG Textbook of Pediatrics by Piyush Gupta (latest edition)

Reference Books

1. "Nelson Textbook of Pediatrics" by Richard E. Behrman, Robert M. Kliegman, Waldo E. Nelson and Victor C. Vaughan (latest edition)
2. "Rudolph's Pediatrics" by Abraham M. Rudolph, Julien IE Hoffman, Colin D. Rudolph and Paul Sagan (latest edition)

Clinical Methods

1. "Hutchison's Clinical Methods" by M Swash (latest edition)
2. "Pediatrics Clinical Methods" by Meharban Singh (latest edition)
3. Clinical methods by Piyush Gupta. (latest edition)

Department of Obstetrics and Gynaecology

I. GOAL:

Graduate should be capable of delivering effective first contact obstetric and gynaecological care and the learner should be able to:

1. Provide pre-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 labor, institute primary care and refer in timely manner. Perform early neonatal resuscitation.
6. Provide postnatal care, including education in breast-feeding.
7. Counsel and support couples in correct choice of contraception.
8. Interpret test results of laboratory and radiological investigations as they apply to the care of the obstetric patient.
9. 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.
10. Elicit gynaecologic history, perform appropriate physical and pelvic examinations and PAP smear in the primary care setting.
11. Recognize, diagnose, and manage common reproductive tract infections in the primary care setting.
12. Recognize and diagnose common genital cancers and refer them appropriately.

II. OBJECTIVES:

Knowledge:

At the end of the course, the student shall be able to:

1. Should have knowledge about the MCH services.
2. Should be competent to diagnose and manage normal delivery, operative obstetrics and gynaecology, medical disorders in pregnancy, common surgical diseases including emergencies.
3. Understand, describe, and apply the knowledge of fluid and electrolyte therapy.
4. Describe indications of blood transfusion, apply it and manage complications.

5. Understand and describe principles of asepsis, disinfection and sterilization, take up rational drug therapy and appropriate use of antibiotics in both medical and surgical conditions.
6. Develop basic awareness and detect common malignancies in the country, understand principles of management and prevention.
7. Enumerate different types of anaesthetic agents, their indications, uses contraindications and side effects.
8. Commitment to advancement of quality and patient safety in obstetrics and gynaecological practice.
9. Understand the nature of the natural calamities and disasters, be an effective team leader or member and deliver appropriate health care during emergencies.

III. SKILLS:

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

1. Should be able skilled birth attendant (SBA).
2. Examine and diagnose common gynaecological conditions.
3. Know operative interventions in obstetrics like ventouse and forceps.
4. Acquire knowledge of basic principles of operative surgeries like caesarean section, abdominal and vaginal hysterectomy, tubectomy, cervical biopsy, cauterization, dilatation and curettage, dilation and evacuation including per operative procedures and manage patients in post-operative period.
5. Plan for various tests and their interpretation.
6. Diagnose and manage patients with various types of shock.
7. TRIAGING OF PATIENTS - Resuscitate and manage air-way, patients with Eclampsia, PPCM, DIC, HELLP syndrome, cardio-respiratory failure, etc.
8. Diagnose and initiate treatment of acute surgical emergencies and refer appropriately.
9. Provide primary care for a patient in pre labour.
10. Identify congenital anomalies and refer them for appropriate management.
11. In addition to the skills referred above in items he/she shall have observed/assisted/ performed the following during internship:
    - Conduct of labour
    - Episiotomy suturing
    - Vacuum delivery

- Forceps delivery
- Assisted Breech delivery
- Artificial rupture of membrane (ARM)
- MTP procedures (Medical / Surgical)
- I.V line insertion
- Pap smear
- Endometrial biopsy
- Suction and evacuation
- Excision of Bartholin cyst
- Biopsy for cervical cancer
- Catheterization and Nasogastric intubation
- Dilatation and Evacuation
- Tubectomy
- Culdocentesis
- Diagnostic D&C
- Caesarean Section
- Endotracheal intubation
- Cervical cauterisation
- Fractional curettage
- Cervical encircalage
- Myomectomy
- Colposcopy
- Abdominal and Vaginal Hysterectomy
- Basic principles Laparoscopic procedures
- Basic principles Hysteroscopic procedures

IV. AFFECTER DOMAIN:

1. Understand and follow ethical approach in management of medical and surgical conditions in relation to obstetrics and gynaecology.
2. Counsel and guide the patients regarding need, options, advantages and disadvantage of common obstetrics and gynaecological surgical procedures.
3. Develop overall humane approach in management of terminal care for needy patients.

4. Co-ordinate and organize needful services at the time of natural disasters.
5. Work in tandem with National and State level health care policies.
6. Understand and follow medico legal aspects in obstetrics and gynaecological care.
7. Develop Ability to administer informed consent and counsel patient prior to delivery, surgical procedures, high risk pregnancy, ultrasonography, medical termination of pregnancy.

V. INTEGRATION:

The teaching should be aligned and integrated horizontally and vertically to provide a sound biologic basis and a holistic approach to the care of the obstetrics and gynaecological patient. The undergraduate teaching in OBG shall be integrated to various stages with preclinical, para clinical and other clinical departments.

PHASE	LECTURE (Hrs)	SGD (Hrs)	SDL (Hrs)
II PHASE (12 Months)	20	NIL	NIL
III/I PHASE (12 Months)	20	30 (15 Topics)	10 (5 Topics)
III/II PHASE (18 Months)	80	150 (75 Topics)	30 (15 Topics)
TOTAL	**120**	**180**	**40 = 340**

PHASE II

Interactive Large Group Discussion

Obstetrics (Conception and Antenatal Care) **Total: 20 Hours**

1. OG 2.1 - Pelvic Anatomy (1 Hr) – Nesting with Anatomy
2. OG 3.1 - Physiology of Conception (1 Hr) – Nesting with Physiology
3. OG 4.1: Fetus and Placenta – Development of Fetus and Teratogenesis (1hr)
4. OG 4.1: Fetus and Placenta – Development of Placenta and its Functions (1hr)
5. OG 6.1: Diagnosis of Pregnancy - Signs and Symptoms (1hr) Case scenario
6. OG 6.1: Diagnosis of Pregnancy - Investigations to Confirm Pregnancy and Differential Diagnosis (1hr)
7. OG 7.1: Maternal Changes in Pregnancy – Genito-Urinary System Changes (1hr) Flipped Classroom OG 7.1: Maternal Changes in Pregnancy – CVS/Haematological/RS & GIT Changes (1 Hr) Flipped Classroom
8. OG 8.1 – Definition, Objectives and High & Low Risk Pregnancy and Antenatal Care (1hr)
9. OG 8.2 - History Taking and Examination in Each Trimester Visit (1hr) Case scenario
10. OG 8.8 – Investigations in Each Trimester (1 Hr)
11. OG 8.7 - Immunization in Pregnancy (1hr)
12. OG 8.10 - Advice in Each Trimester (1hr)
13. OG 9.1 - Abortion in First Trimester (1hr)
14. OG 9.1 - Abortion in Second Trimester (1hr) Flipped classroom
15. OG 9.1 - Abortion in Second Trimester (1hr) Flipped Classroom
16. OG 9.5 - Hyperemesis Gravidarum (1hr)
17. OG 9.3 - Ectopic Pregnancy (1hr) Image based
18. OG 9.4 - Molar Pregnancy (1hr)
19. OG 8.9 - FDA Drugs Category in Pregnancy (1hr)

III/I PHASE

Interactive Large Group Discussion

Obstetrics (Normal Labour) **Total- 20 Hours**

1. OG 8.3 – Antenatal Fetal Monitoring (1Hr) **Flipped Classroom**
2. OG 8.3 – Antenatal Fetal Monitoring (1Hr) **Flipped Classroom**
3. OG 10.1 & 10.2 – Physiology of Normal Labour and OG 13.1 To 13.5 – Stages of Labour & Management (1 Hr)
4. OG 13.1 To 13.5- Management of Stages of Labour (1Hr) **Flipped Classroom**
5. OG 13.1 To 13.5- Management of Stages of Labour (1Hr) **Flipped Classroom**
6. OG 16.2 & 16.2 – Complications of Third stage of Labour (1hr) **Flipped Classroom**
7. OG 16.2 & 16.2 – Complications of Third stage of Labour (Skill Based Teaching) (1hr) **Flipped Classroom**
8. OG 19.1: Normal Puerperium (1hr)
9. OG 17.1 – 17.2: Lactation (1hr)
10. OG 18.1 To 18.3: New Born Care (1hr)

Gynaecology (Endocrine & Infertility)

1. OG 23.1: Normal Puberty (1 Hr)
2. OG 23.1 To 23.3 - Abnormal Puberty - Mullerian Anomalies (1hr)
3. OG 23.1 To 23.3 Precocious Puberty (1hr)
4. OG 23.1 To 23.3 Intersexuality (1hr)
5. OG 25.1: Primary Amenorrhoea (1hr) **Flipped Classroom**
6. OG 25.1: Primary Amenorrhoea (1hr) **Flipped Classroom**
7. OG 25.1: Secondary Amenorrhoea (1hr)
8. OG 30.1 & 30.2 PCOS & Hyperandrogenism (1hr) **Flipped Classroom**
9. OG 30.1 & 30.2 PCOS & Hyperandrogenism (1hr) **Flipped Classroom**
10. OG 32.1: Menopause (1hr)

Small Group Discussion (SGD) **Total: 15 Topics/30 Hours**

1. OG 7.1 - Physiological Changes in Pregnancy – **SGD**
2. OG 4.1- Fetal Development Anatomy: OBG & Anatomy Department: **Integrated Teaching**
3. OG 6.1 - Diagnosis Of Pregnancy – **PBL**
4. OG 9.3 - Ectopic Pregnancy – **PBL**
5. OG 9.4 - Molar Pregnancy – **Tutorial**
6. OG 9.1 Recurrent Pregnancy Loss – SGD
7. OG 8.9- Rational Use of Drugs & Prescription in Pregnancy Pharmacology & OBG: **Integrated Teaching**
8. OG 13.1 – Partograph - **DOAP**
9. OG 14.2 – Mechanism of Normal Labour & Management- **Skill Based Learning**
10. OG 14.3 – Previous LSCS -**SGD**
11. OG 19.1 To 19.4 - Normal Puerperium – **Tutorial**
12. OG 21.1 & 21.2 - RCH Programmes Community Medicine & OBG: **Integrated Teaching**
13. OG 25.1 – Primary Amenorrhoea – **Symposium**
14. OG 30.1 – PCOS -**PBL**
15. OG 32.1 Menopause – **Tutorial**

Self-Directed Learning (SDL) **Duration: 5 topics/10hours**

1. OG 16.1 & 16.2 – Antenatal Care
2. OG 19.1 To 19.4 - Abnormal Puerperium
3. OG 9.1 - Abortions
4. OG 23.1 – Mullerian Anomalies
5. OG 25.1 – Secondary Amenorrhoea

PHASE III/II

Interactive Large Group Discussion

Obstetrics: High Risk Pregnancy **Total: 40 Hours**

1. OG 15.1 & 15.2 – High Risk & Low Risk Pregnancy (1Hr)
2. OG 12.2 - Anaemia (1hr) - **Flipped Classroom**
3. OG 12.2 - Anaemia (1hr) - **Flipped Classroom**
4. OG 21.1 -Hypertension in Pregnancy (1Hr) **Case scenario**
5. OG 21.1 -Hypertension in Pregnancy (1Hr) **Case scenario**
6. OG 12.3 – Gestational Diabetes (1hr) - **Flipped Classroom**
7. OG 12.3 – Gestational Diabetes (1hr) - **Flipped Classroom**
8. OG 12.4: Cardiac Diseases in Pregnancy (1hr)
9. OG 11.1 – Multiple Pregnancy (1hr) - **Flipped Classroom 1**
10. OG 11.1 – Multiple Pregnancy (1hr) - **Flipped Classroom**
11. OG 12.8: RH Incompatibility (1hr)
12. OG 10.1 & 10.2: Antepartum Haemorrhage (1Hr) **Image based**
13. OG 10.1 & 10.2: Antepartum Haemorrhage (1Hr) **Image based**
14. OG 16.3: Fetal Growth Restriction (1hr)
15. OG 8.1 - Oligohydramnios & Polyhydramnios (1hr)
16. OG 13.2: Preterm Labour (1hr) **Case Based Learning**
17. OG 13.2: PPROM / PROM (1hr)
18. OG 13.2: Post Dated Pregnancy (1hr) **Case scenario**
19. OG 12.9 – Thyroid Disorders in Pregnancy (1 hr)
20. OG 8.1- Teenage Pregnancy; Elderly Primigravida & Grand Multipara (1hr)

Abnormal Labour; Operative Obstetrics & Miscellaneous

21. OG 14.1 & 14.2 – CPD, Contracted Pelvis & Diameters of Pelvis (1Hr)
22. OG 14.2 & 14.4 – Dystocia, Obstructed Labour & Rupture Uterus (1hr) - **Flipped Classroom**
23. OG 14.2 & 14.4 – Dystocia, Obstructed Labour & Rupture Uterus (1hr) - **Flipped Classroom**
24. OG 14.4 – Malpresentation & Malposition (Breech) (1 hr) **Image based**
25. OG 14.4 - Malpresentation & Malposition (Transverse lie/ Face/Brow) (1 hr) **Image based**

26. OG 19.1 – Abnormal Puerperium (1 hr) **- Flipped Classroom**
27. OG 19.1 – Abnormal Puerperium (1 hr) **- Flipped Classroom**
28. OG 1.1 & 1.2 – Vital Statistics (1hr)
29. OG 8.9: Intrauterine Death (1hr)
30. OG 13.1: Induction of Labour (1hr)
31. OG 15.1 - Cervical Encircalage (1hr) **-Video demonstration**
32. OG 15.2 - Forceps (1hr) **-Video demonstration**
33. OG 15.2 - Vaccum Delivery (1hr) **-Video demonstration**
34. OG 15.1: LCSC (1hr) 35. OG 15.1: Previous LSCS (1 Hr)
35. OG 16.2 - Shock In Obstetrics (1hr)
36. OG 20.10 – MTP Act (1hr) 38. OG 20.3 – PCPNDT (1 hr)
37. OG 9.4 - Gynaecological Problems in Pregnancy (1hr)
38. OG 12.9 – Surgical Complications in Pregnancy (1hr)

Gynaecology (Infections) **Total: 40 Hours**

1. OG 22.1 – White Discharge Per Vagina (1hr)
2. OG 27.1 – Sexually Transmitted Diseases (1 hr)
3. OG 27.2 – Genital Tuberculosis (1 hr)
4. OG 27.4 – Pelvic Inflammatory Disease (1hr) **Case Scenario**
5. OG 29.1 – Fibroid Uterus (1hr)
6. OG 26.1 – Endometriosis (1hr)
7. OG 26.1 – Adenomyosis (1hr) **Case Scenario**
8. OG 24.1 - Abnormal Uterine Bleeding (1hr) **- Flipped Classroom**
9. OG 24.1 - Abnormal Uterine Bleeding (1hr) **- Flipped Classroom**
10. OG 28.1 To 28.4 Male Infertility (1 hr)
11. OG 28.1 To 28.4 Female Infertility (1 hr)
12. OG 28.1 To 28.4 Female Infertility (1 hr) **-Case Scenario**
13. OG 31.1 – Prolapse Uterus (1hr) **Flipped Classroom**
14. OG 31.1 – Prolapse Uterus (1hr) **Flipped Classroom**
15. OG 33.1 to 33.4 – Pre-Malignant Lesions of Cervix (1hr) **Image based**
16. OG 33.1 to 33.4 – Malignant Lesions of Cervix (1hr) **Image based**
17. OG 33.1 to 33.4: Screening for Carcinoma Cervix (1hr)
18. OG 34.1: Pre-Malignant Lesions & Carcinoma Endometrium (1hr)
19. OG 34.2: Benign Lesions of Ovary (1hr) **Flipped Classroom**
20. OG 34.2: Benign Lesions of Ovary (1hr) **Flipped Classroom**
21. OG 34.2: Malignant Lesions of Ovary (1hr)
22. OG 34.3: Gestational Trophoblastic Neoplasia (1hr)
23. OG 32.1 To 32.2: Post-Menopausal Bleeding (1hr) **Case Scenario**
24. OG 21.1: Contraception-Introduction, Types of Contraceptive Methods, Natural & Barrier Methods (1hr)
25. OG 21.1 - Hormonal Contraceptive (1hr) **Flipped Classroom**
26. OG 21.1 - Hormonal Contraceptive (1hr) **Flipped Classroom**
27. OG 19.4 – Intrauterine Devices (1hr)
28. OG 19.1 To 19.3 – Sterilization Methods in Male
29. OG 19.1 To 19.3 – Sterilization Methods in Females

30. OG 34.4 to 34.7: Operative Gynaecology(1hr): Minor Operative Procedures-**Video demonstration**
31. OG 34.4 to 34.7: Operative Gynaecology(1hr): Major Operative Procedures – **Video demonstration**
32. OG 34.4 to 34.7: Operative Gynaecology(1hr): Major Operative Procedures – **Video demonstration**
33. OG 34.4 to 34.7: Operative Gynaecology(1hr): Hysteroscopy & Laparoscopy – **Video demonstration**
34. OG 31.1: Urinary Incontinence (1 hr)
35. OG 26.6 – Gynaecological Fistulas (1 hr)
36. OG 9.4: Imaging in Obstetrics (1 hr) **- Image based**
37. OG 33.5 – Radiotherapy in Gynaecology (1 hr)
38. OG 33.5, 34.5 & 9.5 – Chemotherapy in Gynaecology (1 hr)
39. OG 30.2: Adolescent Health (1 hr)
40. OG 17.3: Benign Lesions of Breast (1 hr)

Small Group Discussion (SGD) **Total: 75 Topics / 150 Hours (2 Hrs Each)**

1. OG 12.1 to 12.8 - High Risk Pregnancy- **PBL**
2. OG 12.8 - Rh Incompatibility- **Tutorial**
3. OG 12.1 - Hypertension in Pregnancy [Physiology; Medicine & OBG] – **Integrated Teaching**
4. OG 12.3 - Diabetes in Pregnancy- **SGD**
5. OG 11.1 - Multiple Pregnancy - **SGD**
6. OG 10.1 & 10.2 - Abruptio Placenta - **Tutorial**
7. OG 10.1 & 10.2 -Placenta Previa- **Tutorial**
8. OG 12.4 - Cardiac Diseases in Pregnancy- **PBL**
9. OG 12.1 & 12.3: Polyhydramnios & Oligohydramnios- **SGD**
10. OG 16.3 - Fetal Growth Restriction- **Tutorial**
11. OG 13.2: Preterm labour- **Panel**
12. OG 12.2 – Nutrition & Anaemia in Pregnancy [Biochemistry/Pathology/Medicine &OBG] – **Integrated Teaching**
13. OG 13.2: PROM; PPROM- **Panel**
14. OG 13.2: Post Term Pregnancy- **Panel**
15. OG 12.9: Acute Abdomen in Pregnancy [CMO/Surgery & OBG] – **Integrated Teaching**
16. OG 8.1: Teenage Pregnancy & Elderly Primigravida- **Seminar**
17. OG 8.1 – Hyperemesis- **Seminar**
18. OG 8.7 - Immunization in Pregnancy- **Seminar**
19. OG 8.3 - Antenatal Assessment of Fetal Well-Being- **Seminar**
20. OG 12.11 – Ultrasonography in Obstetrics [Radiology & OBG] – **Integrated Teaching**
21. OG 13.1: Induction of Labour- **Panel**
22. OG 13.1 - Intrapartum Fetal Monitoring- **Seminar**
23. OG 15.2 - Mechanism of labour in Breech- **Skill Based Teaching**
24. OG 14.4 - Mechanism of Abnormal Labour {OP/Face/Transverse lie}-**Skill Based Teaching**
25. OG 14.1 & 14.2 - CPD & Obstructed Labour- **Skill Based Teaching**
26. OG 15.1 & 37.6 - Forceps & Ventouse- **Skill Based Teaching**
27. OG 16.1 & 16.2 - Complications of Third Stage of labour - **Skill Based Teaching**
28. OG 8.4 – Neonatal Resuscitation [Paediatrics & OBG] – **Integrated Teaching**

29. OG 17.1 to 17.3 - Breast Feeding- **Symposium**
30. OG 8.9: Intrauterine death- **Tutorial**
31. OG 29.1 - Fibroid Uterus- **SGD**
32. OG 26.1 – Endometriosis- **Seminar**
33. OG 26.1- Adenomyosis- **Tutorials**
34. OG 23.1: Physiology of Menstruation- **Seminar**
35. OG 24.1 - Abnormal Uterine Bleeding- **Panel**
36. OG 28.1 to 28.4 - Infertility Part I- **Seminar**
37. OG 28.1 to 28.4 - Infertility Part II- **Seminar**
38. OG 31.1 – Prolapse- **SGD**
39. OG 35.6: Benign & pre-malignant lesions of Vulva and Vagina- **Tutorial**
40. OG 35.6: Carcinoma vulva & vagina- **Tutorial**
41. OG 33.2 - Benign & pre-malignant lesions of Cervix- **SGD**
42. OG 33.1 & 33.4 - Carcinoma Cervix- **PBL**
43. OG 34.1 - Premalignant lesions of Endometrium- **Tutori**al
44. OG 34.1 - Carcinoma Endometrium- **PBL**
45. OG 34.2 - Benign Ovarian Tumors- **SGD**
46. OG 34.2 - Malignant Ovarian Tumours- **SGD**
47. OG 33.4 - Screening for Genital Malignancy (pathology, PSM & OBG)- **Integrated Teaching**
48. OG 32.1-32.2 - Post Menopausal Bleeding- **PBL**
49. OG 34.3 & 35.12 - Gestational Trophoblastic Tumour- **Tutorial**
50. OG 21.1 & 21.2 - Contraception - Natural & Barrier- **Seminar**
51. OG 38.3 – Male & Female Sterilization- Symposium
52. OG 20.1 to 20.3- MTP and PCPNDT Act (Forensic Medicine and OBG)- **Integrated Teaching**
53. OG 14.1 - OG 23.2 - Puberty - **Tutorial**
54. OG 25.1 - Amenorrhoea - **Flipped classroom teaching**
55. OG 22.1 & 22.2 – White Discharge per Vagina- **SGD**
56. OG 27.4 – PID- **SGD**
57. OG 27.1 – Sexually Transmitted Diseases- **PBL**
58. OG 30.1 - Polycystic Ovarian Diseases- **Panel**

59. OG 23.1 - Intersexuality - **Tutorial**
60. OG 23.1 to 23.3 - Malformations of genital tract- **SGD**
61. OG 32.1 & 32.2 - Menopause & Hormone Replacement Therapy- **Tutorial**
62. OG 26.2 - Gynecological fistulas- **PBL**
63. OG 14.4: Uterine dysfunction- **Seminar**
64. OG 34.4, 37.4 to 37.7: Minor operative procedures- **Seminar**
65. OG 34., 37.4 to 37.7 – Major operative procedures- **Seminar**
66. OG 35.5: Radiotherapy in Gynaecology- **Tutorial**
67. OG 35.5; 34.5 & 9.5: Chemotherapy in Gynaecology - **Tutorial**
68. OG 31.1: Low back ache - **PBL**
69. OG 12.10: Gynaecological Problems in Obstetrics- **SGD**
70. OG 38.1: Endoscopy in gynaecology- **Tutorial**
71. OG 14.1 - Types of pelvis – **Symposium**
72. OG 18.3 - Birth asphyxia- **Seminar**
73. OG 24.1- Anovulation- **Seminar**
74. OG 29.1: Imaging in Gynaecology- **Tutorial**
75. OG 12.10: Surgical complications in pregnancy- **Seminar**

Self-Directed Learning (SDL) **Total: 15 Topics / 30 Hours (2 Hours Each)**

1. OG 14.3 - Previous LSCS
2. OG 12.1 - Hypertension in Pregnancy
3. OG 12.2 - Anaemia
4. OG 12.3 - Gestational Diabetes
5. OG 11.1 - Multiple Pregnancy
6. OG 10.1 & 10.2 - Antepartum Haemorrhage
7. OG 15.1 & 15.2 - Breech Presentation
8. OG 29.1 - Fibroid Uterus
9. OG 13.1 - Prolapse Uterus
10. OG 34.2 - Ovarian Tumours
11. OG 28.1 to 28.4 – Infertility
12. OG 22.1 & 27.4 – PID & WDPV
13. OG 27.2 - Tuberculosis of Genital Tract
14. OG 24.1 - Abnormal Uterine Bleeding
15. OG 30.2 - Hormones in Gynaecology

CLINICAL POSTING SYLLABUS
CLINICAL POSTING -1

(A)	Topics –Bedside Teaching
	OBSTETRICS
1	Orientation to clinical posting & different wards
2	Various definitions used
3	OG 8.2: History taking A) Antenatal case- Low risk and High-risk case B) Postnatal case
4	OG 8.3: General Physical examination & Obstetric Examination
5	OG 6.1: Diagnosis of Pregnancy A) 1st Trimester B) 2nd Trimester C) 3rd Trimester
6	OG 8.3: Antenatal checkup A) 1st Trimester B) 2nd & 3rd Trimester
7	OG 8.6: Nutrition in Pregnancy
8	OG 9.3 & 20.2: Abortion & MTP
9	OG 12.2: Anemia in Pregnancy
10	OG 35.9: Ethics in OBG
	GYNECOLOGY
11	Various gynecological definitions used
12	OG 8.2: History taking for gynecology case
13	OG 8.3: General physical examination of gynaecology case
14	OG 22.1: Leucorrhea
15	OG 35.3: WDPV
16	OG 35.6: Genital Ulcers

(B)	PROCEDURES TO BE OBSERVED/PERFORMED
1	OG 8.3: Obstetric Examination
2	OG 35.5: Per Speculum Examination
3	OG 37.7: Steps of MTP
4	OG 13.7: Observe Normal Deliveries
5	OG 37.1: Observe Caesarean Deliveries

(C)	CERTIFIABLE SKILLS
1	OG 35.8: Determine Gestational age, EDD and Obstetric formula (OPD)-5 times
2	OG 35.14: Universal Precautions (OT)-2 times
3	OG 35.1: Provisional Diagnosis Based on History – 5 times

CLINICAL POSTING -2

(A)	TOPICS – BEDSIDE TEACHING
	OBSTETRICS
1	OG 13.2: Normal labour including partograph
2	OG 19.1: Normal Puerperium
3	OG 17.2: Breastfeeding
4	OG 12.1: Hypertensive disorder of pregnancy
	GYNECOLOGY
5	OG 35.4 & 29.1: Mass per abdomen (Fibroid &Benign ovarian tumor)
6	OG 27.3: PID

(B)	PROCEDURES TO BE OBSERVED/PERFORMED
1	OG 13.2: Mechanism of labour (Skill lab)
2	OG 13.6: Management of each stage of labour (Skill lab)
3	OG 17.2: Counsel for breastfeeding (OPD /ward)
4	OG 13.7: Observe Normal Deliveries (LR)
5	OG 37.1: Observe Caesarean Section (OT)

(C)	CERTIFIABLE SKILLS
1	OG 35.2: Logical provisional diagnosis – 5 times
2	OG 19.2: Counsel for contraception -2 times

CLINICAL POSTING -3

(A)	TOPICS – BEDSIDE TEACHING
	OBSTETRICS
1	OG 11.1: Multiple pregnancy
2	OG 12.3: Gestational diabetes mellitus
3	OG 12.4: Cardiac disease in pregnancy
4	OG 13.4: Preterm labour and PROM
5	OG 13.4: Post-dated and Post term Pregnancy
6	OG 14.1: Cephalopelvic Disproportion Assessment
	GYNECOLOGY
7	OG 31.1: Mass per vagina (Prolapse)
8	OG 24.1: AUB
9	OG 28.1: Infertility - Male, Female
10	OG 33.1: Carcinoma Cervix

(B)	PROCEDURES TO BE OBSERVED/PERFORMED
1	OG 15.1: Cervical Encircalage (OT)
2	OG 34.4: D & C (OT)
3	OG 37.1: Observe and assist Caesarean Deliveries (OT)
4	OG 37.3: Observe and assist Abdominal hysterectomy (OT)
5	OG 36.3: Cervical punch biopsy [OT]
6	Pre-operative & post-operative care [OT]
7	OG 12.11: Ultrasonography (OPD)
8	OG 28.1: HSG(OPD)
9	OG 14.3: Malpresentations-OP/Breech/Transverse lie/Face presentation (Skill Lab)
10	OG 13.1: Dummy Pelvis (Skill lab)
11	CPD (Skill Lab)
12	OG 16.2: Observe Management of PPH (Skill Lab)
13	Specimens
14	Drugs
15	Instruments

(C)	CERTIFIABLE SKILLS
1	OG 35.17: Episiotomy – 2times
2	OG 16.2: Management of PPH - 1/ 3 times
3	OG 35.15: Pap smear – 3 times
4	OG 33.4: VIA/VILI- 3 TIMES
5	OG 35.20: Female Urinary Catheterisation- 1/3 times
6	OG 35.7: Communication skills – 2times
7	OG 13.7: Write 10 labour cases in record book.

LABOUR ROOM PROCEDURES (CLINICAL POSTING-3)

Sl. No	Activity
1	OG 8.4: Monitoring of labor including partogram and NST
2	OG 13.3: Induction of Labour
3	OG 13.3: Acceleration of labor
4	OG 35.16: Amniotomy
5	OG 15.2: Steps of Caesarean Section
6	OG 37.6: Operative obstetrics case–Forceps/vacuum extraction
7	OG 15.2: Steps of episiotomy
8	OG 13.7: Observe and assist 10 Normal Labour cases.

CLINICAL POSTING -4

(A)	TOPICS – BEDSIDE TEACHING
	OBSTETRICS
1	OG 19.1: Abnormal puerperium
2	OG 8.10: Previous LSCS
3	OG 12.8: Rh Incompatibility
	4GYNECOLOGY
4	OG 32.2: Postmenopausal5 bleeding
5	OG 34.2: Carcinoma Ovary
6	OG 34.1: Carcinoma Endometrium
7	OG 36.1: Plan of management for any case

(B)	PROCEDURES TO BE OBSERVED/PERFORMED
1	OG 16.2: Complications of3rdstage of labour (Skill Lab)
2	OG 35.18: Copper-T Insertion (Skill Lab)
3	OG 35.10: Informed Consent (OT)
4	OG 37.3: Steps of Abdominal Hysterectomy (OT)
5	OG 37.3: Steps of Vaginal Hysterectomy (OT)
6	OG 19.3: Steps of Tubal Ligation (OT)
7	OG 37.2: Steps of Laparotomy (OT)
8	OG 38.1: Laparoscopy (OT)
9	OG 38.2: Hysteroscopy (OT)
10	OG 38.3: Laparoscopic Sterilization (OT)

(C)	CERTIFIABLE SKILLS
1	OG 35.11: Case Records -5 times
2	OG 35.12: Discharge Summary-2 times
3	OG 35.13: Referral Note-2 times
4	OG 16.2: Management of PPH -2/3 times
5	OG 35.20: Female Urinary Catheterisation- 2/3 times

TEACHING-LEARNING METHODS IN CLINICAL POSTINGS

OPD DAY's:

SNAPPS (SNAPPS- Summarize, Narrow, Analyse, Probe, Plan, and Select)

- One-minute preceptors
- Procedure discussion (OPD Procedures) including the ultrasound procedures
- Clinical clerkship (Evening: 6-8PM)

OT DAY's:

Operative procedure demonstration, instruments

WARD DAY's:

- 1st Week of the month- Case Presentation / Grand Rounds
- 2nd Week of the month - Learner Doctor Method/Case Presentation
- 3rd Week of the month- Case Presentation/Skill Lab Activity
- 4th Week of the month- VIVA/AETCOM/Other Innovative TLMs*/ Case Presentation

***TLMs-** Teaching Learning Methods

ELIGIBILITY CRITERIA FOR UNIVERSITY EXAMINATION

1. **Attendance:**
    - Theory: >75 %
    - Clinicals: >80%
    - Electives: >75% attendance along with log book submission
    - AETCOM: >75% attendance
2. **Internal Assessment:** 50% of total marks (combined theory & clinicals) and minimum 40% in theory and clinicals separately.
3. **Certifiable competencies:** All the required certifiable competencies must be completed and entered in log book.

Remedial measures for slow learners:

Students must have more than 75% attendance in theory and 80% attendance in practical to appear for University examination.

A student who has deficiency (s) in any of the criteria mentioned below that are required to be eligible for appearing in University examination, should be put into remedial process as below:

- During the course: If not meeting the eligibility criteria – Remedial classes will be taken, for the student to appear for Regular University Exam. Despite these measures, if the student does not meet the eligibility criteria, Remedial classes will be conducted between the regular University Exam and the Supplementary Exam (If the attendance is >60% in all the components.
- At the end of phase: If the student does not meet the eligibility criteria, then will be detained from Regular University Exam and the Remedial classes will be taken for student to appear in the Supplementary Exam if the attendance is >60%.

AETCOM MODULES

1. **MODULE 4.2:** Case studies in medico-legal and ethical situations

   Background: This module discusses the medico-legal and ethical conflicts in adolescents (also see module 2.5).

Competency addressed

The student should be able to:	Level
Identify, discuss and defend medico-legal, socioeconomic and ethical issues as it pertains to abortion / Medical Termination of Pregnancy and reproductive rights	KH

Learning Experience

Year of study: Professional year 4

Hours: 5

i. Introduction of case – 1 hour
ii. Self-directed learning – 2 hours
iii. Anchoring lecture – 1 hour
iv. Discussion and closure of case – 1 hour

Case: The Child's Child

You are the family doctor of Mr. Ravikiran for the past 10 years. One evening toward the end of a busy clinic Mr. Ravikiran, his wife and daughter come in. The usual smiles were absent. There was silence for a few minutes and when you asked what is the matter, Mr. Ravikiran points out to his wife and tells her that you tell him.

Reluctantly and with tears bursting in her eyes she tells you that her only daughter Sapna who is 16 years old had amenorrhea for 4 months. She had taken her to the gynecologist, who after examining her ordered an ultrasound scan of the abdomen which showed a 16 week fetus. After much argument and discussion, the family requested the gynecologist to perform a Medical Termination of Pregnancy (MTP). Sapna, however refuses to undergo an MTP - claiming that the child is her expression of love and that she believes that taking away her baby's life will be tantamount to murder.

The parents are embarrassed to face society and feel that continuing the pregnancy will harm the daughter. As parents, they feel that they have a right to determine if their daughter should undergo a Medical Termination of Pregnancy or not. The daughter feels that she is old enough. As their family doctor, they would like you to help them through this nightmare.

Points for discussion:

1. Who makes health care decisions for adolescents?
2. What are the medical implication of the MTP act?
3. Are there provisions for emancipated minors?
4. Should adolescents be included in the decision making process?

Assessment

1. **Formative:** The student may be assessed based on their active participation in the sessions.
2. **Summative:** Short questions on the Medical Termination of Pregnancy Act

2. MODULE 4.7: Case studies in ethics and patient autonomy

Background: This module discusses ethical issues in care of children (also see module 2.5).

Competency addressed

The student should be able to:	Level
Identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts	SH

Learning Experience

Year of study: Professional year 4

Hours: 5

i. Introduction of case – 1 hour
ii. Self-directed learning – 2 hours

iii. Anchoring lecture – 1 hour

iv. Discussion and closure of case – 1 hour

Case: The "Cruel" Parents

A six-year-old boy is brought to the emergency room with a single episode of generalized tonic clonic convulsions. The child is stabilized on IV anti-epileptics and an oral anti-epileptic is started. There are no further episodes during the hospitalization. The child is scheduled for an EEG and an MRI. Through this time the family had been cooperative with the treatment. The parents appear to be educated and appeared to care for their son deeply. When further investigations are suggested, the parents come back to you and say - "doctor, thank you for helping us at a time of need but we feel that it is against our faith to continue allopathic care. We have decided to go back to our ancestral village and our family shrine where we have scheduled a ritual tomorrow. Our priest has promised us that the child will be disease-free, if we perform the rites required. This convulsion is a result of the curse of our ancestors and if we do the requisite rituals to please them then child will be cured of the disease. Please do not do anymore tests or treatments. We are stopping the medications tomorrow and will get discharged. Thank you."

Points for discussion:

1. Who has the right to decide for children?
2. Can parents refuse treatment even in life threatening situations?
3. What if there is a conflict?

Assessment:

1. **Formative:** The student may be assessed based on their active participation in the sessions.
2. **Summative:** Short questions on parental consent.

3. MODULE 4.8: Dealing with death

Background: Thanatology is a branch of science that deals with death. Death is an event that any medical student will inevitably face during the course of their professional career. Dealing with death empathetically and at the same time not being overwhelmed by it is an important coping skill for doctors.

Competencies addressed

The student should be able to:	Level
1. Identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts.	SH
2. Demonstrate empathy to patient and family with a terminal illness in a simulated environment.	SH

Learning Experience

Year of study: Professional year 4

Hours: 5

i. Introduction of case – 1 hour
ii. Self-directed learning – 2 hours
iii. Anchoring lecture – 1 hour
iv. Discussion and closure of case – 1 hour

Case: The Empty Bed

You are a house surgeon in the night shift of the ICU. A 19 year old girl Sharmila is wheeled into the ICU. She has a complicated history. She had surgery for cyanotic congenital heart disease at age 8. She has a history of severe asthma often requiring admission for steroids. She lives in a home near a construction site and recently the attacks have flared up. She now has frequent admissions for asthma exacerbations. She is now constantly on steroids. In the last month, she has had 3 admissions. But she fights it bravely. She carries her books with her when she comes in and after the attack settles down she sits quietly reading. Despite the struggle you noticed that the staff nurses liked her. She was positive and charming. Today was no different but the attack seemed worse.

In the ER, the FEV1 was horrible. They had pumped her with steroids, put her on continuous nebulization, an aminophylline infusion was in place when you received her. The smile was smaller but there. The face was cushingoid with all the steroids and the body looked tired. She was moved to her usual bed number 9. Your shift was getting over at 7 a.m. but you stayed on an hour. She looked better, the smile was back you reassured her and said I'll be back in the evening and left.

That evening you report for duty and as you look through the patients, bed number 9 is empty. "Have you discharged Sharmila?" you asked the nurse. No doctor – she developed a sudden cardiac arrest at 12 noon – we could not revive her.

Points for discussion:

1. How should doctors deal with the emotions of patients and family facing death?
2. What does the patient experience when he/she is dying? Can physicians make the process of death comfortable?
3. What are the emotions faced by doctors when confronting death in patients? Is death a defeat for the doctor? Should the doctor be emotionally detached from a dying patient?
4. What are the cultural aspects of dying?

Alternate Case: I have decided to die

You are a physician in a community care practice for over 20 years and caring for various patients. Mr. Bhaskara Rao is a patient in your care for the past 14 years. He is 76 years old and has diabetes for the past 30 years. He had renal failure for the past 10 years and is CKD stage V requiring dialysis for 3 years. While he is following up with the nephrologist, he values your position in his family as a family doctor and regularly visits you to check if his treatment is correct and more often to seek reassurance. He has invited you to all his family events – the last being one month ago for his grandson's wedding.

This morning you get a call from him. "Doctor! He says in his usual cheerful voice. Can I meet you tomorrow? I have fulfilled all my responsibilities in life. I am not sad. My children are all settled; my grandson is married; my wife as you know is no more. I have decided to stop my dialysis and say goodbye to this world. I thought I'll talk to you about how to prepare for my death!

Learning Experience:

Year of study: Professional year 4

Hours: 5

i. Introduction of case – 1 hour
ii. Self-directed learning – 2 hours
iii. Anchoring lecture – 1 hour
iv. Discussion and closure of case – 1 hour

Points for discussion:

1. Can patients choose to die? Is there a role for doctors in the death of patients? Can doctors assist death?
2. How should doctors deal with the emotions of patients and family facing death?
3. What does the patient experience when he/she is dying? Can physicians make the process of death comfortable?
4. What are the emotions faced by doctors when confronting death in patients? Is death a defeat for the doctor? Should the doctor be emotionally detached from a dying patient?
5. What are the cultural aspects of dying?

Assessment:

1. **Formative:** Participation in sessions may be used as part of formative assessment. Submitted narrative on the socio cultural aspects of death may be used as assessment.
2. **Summative:** Short question on assisted dying.

Resources: The MCI &AMA Code of Medical Ethics.

ASSESSMENT

INTERNAL ASSESSMENT (IA)

I. THEORY

There will be one internal assessment test at the end of Phase II & III/I of 25marks each. Phase III/II will have two IA of 75 marks each.
There will be one preliminary exam including entire syllabus after second IA, before university exams which includes 2 theory papers of 100 marks each (25marks MCQ + 75marks Theory questions)

II. PRACTICAL

At the end of each clinical posting, there will be a ward leaving test i.e.

1. 1st Posting- 25 marks (case presentation)
2. 2nd Posting - 25 marks (OSCE)
3. 3rd Posting – 100 marks (case presentation & viva)
4. 4th Posting - 50 marks (certifiable skill assessment- 30 marks & Log book assessment- 20 marks)

Internal Assessment will be conducted in the following manner:

Sl. No	Exams	Theory (Marks)	Practical Including Viva (Marks)
1	Phase II	25 marks	25 marks • Case Presentation (Obstetrics)
2	Phase III- Part 1	25 marks	25 marks • OSCE (5 x 5 m)
3	Phase III – Part 2 1st IA	75 marks (50 theory & 25 MCQs)	100 marks Case presentation: Obs/Gyn – for 40 marks • Viva for 40 marks • Log book – 20 marks
4	Phase III – Part 2 2nd IA	75 marks (50 theory & 25 MCQs)	50 marks • 30 marks- Certifiable skill assessment • 20 marks – LOG book
5	Preliminary Examination	200 marks (2 paper, 100 each)	200 marks (1 Long case (70): 2 Short cases (35 each: OSCE (20) & Viva - 40
	Total	**400**	**400**

The total internal assessment will be reduced to 200 for theory and 200 for practicals/ clinicals+viva voce as per NMC guidelines

UNIVERSITY MODEL QUESTION PAPERS

THEORY:

There shall be two papers each carrying 100 marks.

- **Paper I-** All Obstetrics topics
- **Paper II-** All Gynaecology topics

The pattern of questions would be of four types.

Suggested Format for Theory Paper		
Duration – 3 hours		**2 Papers – 100 marks each**
	Type of question/Number of questions	**Marks (m) per question**
Q No 1	Scenario bases MCQ (20)	1 each (20 X 1 = 20 m)
Q No 2	Long essay question/Two	10 each (2 X 10 = 20 m)
Q No 3	Short essay / 6	5 each (6 X 5 = 30 m)
Q No 4	Short Answers / 10	3 each (10 X 3 = 30 m)

PRACTICAL:

Total marks: 200 marks

Pattern:

- One long case (70 marks)
- Two short cases (35 marks each)
- OSCE (20 marks) and Viva Voce 40 marks (Instruments / Family Planning/ Dummy Pelvis & Specimens).

Suggested cases for practical examination:

A. Obstetrics:

1. Normal antenatal case
2. Normal postnatal case
3. Post Cesarean case
4. Previous LSCS
5. Hyper emesis gravidarum
6. Anemia in pregnancy
7. Hypertension in pregnancy
8. Preterm labour
9. Rh negative pregnancy
10. Cardiac disease in pregnancy
11. Twin pregnancy
12. Malpresentations (Breech)
13. Abortion

B. Gynecology:

1. Mass per abdomen
2. Mass per vagina (Prolapse)
3. White discharge per vagina
4. Postmenopausal bleeding
5. Fibroid
6. Adenomyosis
7. AUB
8. Ca cervix
9. Ovarian tumors
10. PID
11. Infertility

B.L.D.E. (Deemed to be University)
SHRI.B.M.PATIL MEDICAL COLLEGE,HOSPITAL AND RESEARCH CENTER
VIJAYAPUR- KARNATAKA

Curriculum Based Medical Education (CBME)

LOG BOOK

OBTETRICS AND GYNAECOLOGY

Personal Details

Name of the student	
Date of admission to MBBS course	
Date of beginning of PHASE II	
Date of beginning of PHASE III – Part I	
Date of beginning of PHASE III – Part II	
Reg. No. (College ID)	
Reg. No (University ID)	
Permanent address	
E mail ID	
Mobile Number	
Signature of the student	

B.L.D.E. (Deemed to be University)
SHRI.B.M.PATIL MEDICAL COLLEGE,HOSPITAL AND RESEARCH CENTER
VIJAYAPUR- KARNATAKA

CERTIFICATE

This is to certify that the candidate Mr./Ms._____ Reg. No_____ admitted in the year _____ has satisfactorily completed all assignments/ requirements mentioned in this logbook as prescribed by National Medical Commission for MBBS course in the subject of Obstetrics & Gynecology during the period from _____ to _____. She/ He is eligible to appear for the summative (University) assessment as on the date given below.

Signature of Faculty:

Signature of Head of the Department
Department of Obstetrics & Gynecology

Name:

Designation:

Place: Vijayapura

Date:

INDEX

Sl. No	Topic	Page Number
1	Goals & Objectives	
2	General & LDM Instructions	
3	Internal Assessment Details	
4	Activities in Clinical Posting 1	
5	Activities in Clinical Posting 2	
6	Activities in Clinical Posting 3	
7	Labour Room Procedures	
8	Activities in Clinical Posting 4	
9	Reflection of Learner Doctor Method (LDM)	
10	List of Certifiable Skills	
11	AETCOM	
12	Integrated Teaching	
13	Self-Directed Learning (SDL)	
14	Research Activities and Awards	

Goals & Objectives of Learning in OBG Department

Goals:

Graduate should be capable of delivering effective first contact obstetric and gynaecological care and the learner should be able to:

1. Provide pre-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 labor, institute primary care and refer in timely manner. Perform early neonatal resuscitation.
6. Provide postnatal care, including education in breast-feeding.
7. Counsel and support couples in correct choice of contraception.
8. Interpret test results of laboratory and radiological investigations as they apply to the care of the obstetric patient.
9. 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.
10. Elicit gynaecologic history, perform appropriate physical and pelvic examinations and PAP smear in the primary care setting.
11. Recognize, diagnose, and manage common reproductive tract infections in the primary care setting.
12. Recognize and diagnose common genital cancers and refer them appropriately.

OBJECTIVES:

Knowledge:

At the end of the course, the student shall be able to:

1. Should have knowledge about the MCH services.
2. Should be competent to diagnose and manage normal delivery, operative obstetrics and gynaecology, medical disorders in pregnancy, common surgical diseases including emergencies.

3. Understand, describe, and apply the knowledge of fluid and electrolyte therapy.
4. Describe indications of blood transfusion, apply it and manage complications.
5. Understand and describe principles of asepsis, disinfection and sterilization, take up rational drug therapy and appropriate use of antibiotics in both medical and surgical conditions.
6. Develop basic awareness and detect common malignancies in the country, understand principles of management and prevention.
7. Enumerate different types of anaesthetic agents, their indications, uses contraindications and side effects.
8. Commitment to advancement of quality and patient safety in obstetrics and gynaecological practice.
9. Understand the nature of the natural calamities and disasters, be an effective team leader or member and deliver appropriate health care during emergencies.

SKILLS:

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

1. Should be able skilled birth attendant (SBA).
2. Examine and diagnose common gynaecological conditions.
3. Know operative interventions in obstetrics like ventouse and forceps.
4. Acquire knowledge of basic principles of operative surgeries like caesarean section, abdominal and vaginal hysterectomy, tubectomy, cervical biopsy, cauterization, dilatation and curettage, dilation and evacuation including per operative procedures and manage patients in post-operative period.
5. Plan for various tests and their interpretation.
6. Diagnose and manage patients with various types of shock.
7. TRIAGING OF PATIENTS - Resuscitate and manage air-way, patients with Eclampsia, PPCM, DIC, HELLP syndrome, cardio-respiratory failure, etc.
8. Diagnose and initiate treatment of acute surgical emergencies and refer appropriately.
9. Provide primary care for a patient in pre labour.
10. Identify congenital anomalies and refer them for appropriate management.

11. In addition to the skills referred above in items he/she shall have observed/assisted/ performed the following during internship:
    - Conduct of labour
    - Episiotomy suturing
    - Vacuum delivery
    - Forceps delivery
    - Assisted Breech delivery
    - Artificial rupture of membrane (ARM)
    - MTP procedures (Medical / Surgical)
    - I.V line insertion
    - Pap smear
    - Endometrial biopsy
    - Suction and evacuation
    - Excision of Bartholin cyst
    - Biopsy for cervical cancer
    - Catheterization and Nasogastric intubation
    - Dilatation and Evacuation
    - Tubectomy
    - Culdocentesis
    - Diagnostic D&C
    - Caesarean Section
    - Endotracheal intubation
    - Cervical cauterisation
    - Fractional curettage
    - Cervical encircalage
    - Myomectomy
    - Colposcopy
    - Abdominal and Vaginal Hysterectomy
    - Basic principles Laparoscopic procedures
    - Basic principles Hysteroscopic procedures

VI. AFFECTER DOMAIN:

1. Understand and follow ethical approach in management of medical and surgical conditions in relation to obstetrics and gynaecology.
2. Counsel and guide the patients regarding need, options, advantages and disadvantage of common obstetrics and gynaecological surgical procedures.
3. Develop overall humane approach in management of terminal care for needy patients.
4. Co-ordinate and organize needful services at the time of natural disasters.
5. Work in tandem with National and State level health care policies.
6. Understand and follow medico legal aspects in obstetrics and gynaecological care.
7. Develop Ability to administer informed consent and counsel patient prior to delivery, surgical procedures, high risk pregnancy, ultrasonography, medical termination of pregnancy.

VII. INTEGRATION:

The teaching should be aligned and integrated horizontally and vertically to provide a sound biologic basis and a holistic approach to the care of the obstetrics and gynaecological patient.

The undergraduate teaching in OBG shall be integrated to various stages with preclinical, para clinical and other clinical departments.

GENERAL INSTRUCTIONS

1. This logbook is prepared as per the guidelines of National Medical Commission for implementation of Competency based curriculum for Phase II and Phase III MBBS students in the subject of Obstetrics and Gynaecology.
2. The logbook is a record of the academic / co-curricular activities of the designated student, who would be responsible for maintaining his/her logbook.
3. The student is responsible for getting the entries in the logbook verified by the faculty in charge regularly.
4. Entries in the logbook will reflect the activities undertaken in the department & have to be Scrutinized by the Head of the concerned department.
5. 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
6. Students are expected to write reflections in specified sections in this logbook which should be structured using the following guiding questions:
    - What happened? (What did you learn from this experience)
    - So what? (What are the applications of this learning)
    - What next? (What knowledge or skills do you need to develop so that you can handle this type of situation)
7. The logbook assessment will be based on multiple factors like:
    - Attendance
    - Active participation in the sessions
    - Timely completion
    - Quality of write up of reflections
    - Overall presentation
8. There are two journals other than this log book, which must be completed by the student during the clinical postings with detailed case records (one journal each in Obstetrics & Gynaecology).

9. The logbook is the record of work done by the candidate in that department / specialty and should be verified by the college before submitting the application of the students for the University examination.
10. Cases to be written in Record book / Journal as follows:

Phase II (5 Cases)	2 ANC
	2 PNC
	1 Gynaec
Phase III/I (10 Cases)	4 ANC
	3 PNC
	3 Gynaec
Phase III/I (10 Cases)	5 ANC
	5 PNC
	5 Gynaec
Labour Room	10 Cases
Total	**40 Cases**

Clinical Clerkship / Learner-Doctor Method (LDM)

1. Students will be allotted beds once the clinical postings begin.
2. The student should take the responsibility of the assigned patient and follow up them till discharge.
3. If allotted patient undergoes any operative procedures, the students must get involved in the pre-operative and post-operative care.
4. Enter few of the cases in the record book in every posting.
5. Attend the evening rounds in labour room by on duty staff.
6. Conduct/assist minimum of 10 normal deliveries and enter the cases in record book in allotted space.

Internal Assessment

Internal Assessment will be conducted in the following manner:

Sl. No	Exams	Theory (Marks)	Practical Including Viva (Marks)
1	Phase II	25 marks	25 marks • Case Presentation (Obstetrics)
2	Phase III- Part 1	25 marks	25 marks • OSCE (5 x 5 m)
3	Phase III – Part 2 1st IA	75 marks (50 theory & 25 MCQs)	100 marks • Case presentation: Obs/Gyn – for 40 marks • Viva for 40 marks • Log book – 20 marks
4	Phase III – Part 2 2nd IA	75 marks (50 theory & 25 MCQs)	50 marks • 30 marks- Certifiable skill assessment • 20 marks – LOG book
5	Preliminary Examination	200 marks (2 paper, 100 each)	200 marks (1 Long case (70): 2 Short cases (35 each: OSCE (20) & Viva - 40
	Total	**400**	**400**

CLINICAL POSTING 1	
Duration:	
Date of posting from:	**To:**
Unit:	

Topics to be Taught

(A)	Topics –Bedside Teaching
	OBSTETRICS
1	Orientation to clinical posting & different wards
2	Various definitions used
3	OG 8.2: History taking A) Antenatal case- Low risk and High-risk case B) Postnatal case
4	OG 8.3: General Physical examination & Obstetric Examination
5	OG 6.1: Diagnosis of Pregnancy A) 1st Trimester B) 2nd Trimester C) 3rd Trimester
6	OG 8.3: Antenatal checkup A) 1st Trimester B) 2nd & 3rd Trimester
7	OG 8.6: Nutrition in Pregnancy
8	OG 9.3 & 20.2: Abortion & MTP
9	OG 12.2: Anemia in Pregnancy
10	OG 35.9: Ethics in OBG
	GYNECOLOGY
11	Various gynecological definitions used
12	OG 8.2: History taking for gynecology case
13	OG 8.3: General physical examination of gynaecology case
14	OG 22.1: Leucorrhea
15	OG 35.3: WDPV
16	OG 35.6: Genital Ulcers

(B)	PROCEDURES TO BE OBSERVED/PERFORMED
1	OG 8.3: Obstetric Examination
2	OG 35.5: Per Speculum Examination
3	OG 37.7: Steps of MTP
4	OG 13.7: Observe Normal Deliveries
5	OG 37.1: Observe Caesarean Deliveries

(C)	CERTIFIABLE SKILLS
1	OG 35.8: Determine Gestational age, EDD and Obstetric formula (OPD)-5 times
2	OG 35.14: Universal Precautions (OT)-2 times
3	OG 35.1: Provisional Diagnosis Based on History – 5 times

COMPETENCIES TO BE ACHEIVED

(A) BEDSIDE TEACHING

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
OG 8.2	Elicit document and present an obstetric history including menstrual history, last menstrual period, previous obstetric history, comorbid conditions, past medical history, and surgical history						
OG 5.1	Describe, discuss, and identify pre-existing medical disorders and discuss their management DM, HT, renal disorders, SLE, obesity, epilepsy & heart disease						
OG 5.2	Determine maternal high - risk factors and verify immunization status						
OG 8.1	Enumerate, describe, and discuss the objectives of antenatal care, assessment of period of gestation; screening						

	for high-risk factors and concept of inverted pyramid of care						
OG 6.1	Describe, discuss, and demonstrate the clinical features of pregnancy, derive and discuss its differential diagnosis, elaborate the principles underlying and interpret pregnancy tests.						
OG 8.4	Describe and demonstrate clinical monitoring of maternal and fetal well- being including weight gain						
OG 8.6	Assess and counsel a patient in a simulated environment regarding appropriate nutrition in pregnancy						
OG 36.2	Organise antenatal, post- natal, and family welfare clinics.						
OG 9.3	Describe the steps and observe the performance of an MTP evacuation (medical abortion, Eva & MVA)						
OG 20.2	In a simulated environment administer informed consent to a person wishing to undergo Medical Termination of Pregnancy						

OG 12.2	Define, classify, and describe the etiology, pathophysiology, diagnosis, investigations, adverse effects on the mother and foetus and management during pregnancy and labor, and complications of anemia in pregnancy						
OG 22.1	Describe the clinical characteristics of physiological vaginal discharge.						
OG 35.5	Describe, discuss, and demonstrate examination, differential diagnosis, and management of a case of vaginal discharge						
OG 35.6	Describe, discuss, and demonstrate examination, differential diagnosis, and management of a case of genital ulcers						

(B) SKILL LAB/OT/OPD/WARD PROCEDURES TO BE OBSERVED/PERFORMED

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
OG 8.3	Describe, demonstrate, document and perform an obstetrical examination including a general and abdominal examination (symphysio- fundal height & abdominal girth) and clinical monitoring of maternal and fetal well being						
OG 13.7	Observe the conduct of a normal vaginal delivery						
OG37. 1	Observe the performance of a Caesarean section						
OG 37.7	Observe the performance of MTP in the first trimester and evacuation in incomplete abortion						
OG35. 5	Per speculum examination to demonstrate white discharge per vagina						
OG 35.9	Demonstrate ethical behavior in all aspects of medical practice.						

(C) CERTIFIABLE SKILLS

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
OG 35.8	Determine gestational age, EDD, and obstetric formula- (5 times)	1					
		2					
		3					
		4					
		5					
OG 35.1	Obtain a logical sequence of history, and perform a humane and thorough clinical examination, excluding internal examinations (per rectal and per vaginal) (5 times)	1					
		2					
		3					
		4					
		5					
OG 35.14	Demonstrate the correct use of appropriate universal precautions for self-protection against HIV and hepatitis and counsel patients –(2 times)	1					
		2					

SUMMARY OF CASES ALLOTED IN LEARNER- DOCTOR METHOD

CASE 1:

CASE 2:

CASE 3:

REFLECTIONS: GESTATIONAL AGE, EDD & OBSTETRIC FORMULA

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: UNIVERSAL PRECAUTIONS

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: PROVISIONAL DIAGNOSIS BASED ON HISTORY

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: CLINICAL POSTING 1

What happened?
So what?
What next?
Faculty Signature: **Date:**

CLINICAL POSTING 2
Duration:
Date of Posting from: **To:**
Unit:

TOPICS TO BE TAUGHT

A	TOPICS – BEDSIDE TEACHING
	OBSTETRICS
1	OG 13.2 & 13.3: Normal labour including partograph
2	OG 19.1: Normal puerperium
3	OG 17.2: Breastfeeding
4	OG 12.1: Hypertensive disorder of pregnancy
	GYNECOLOGY
5	OG 35.4 & 29.1: Mass per abdomen (Fibroid &Benign ovarian tumor)
6	OG 27.3: PID
B	**PROCEDURES TO BE OBSERVED/PERFORMED**
1	OG 13.2: Mechanism of labour (Skill lab)
2	OG 13.6: Management of each stage of labour (Skill lab)
3	OG 17.2: Counsel for breastfeeding (OPD /ward)
4	OG 13.7: Observe Normal Deliveries (LR)
5	OG 37.1: Observe Caesarean Section (OT)
C	**CERTIFIABLE SKILLS**
1	OG 35.2: Logical provisional diagnosis – 5 times
2	OG 19.2: Counsel for contraception -2 times

COMPETENCIES TO BE ACHEIVED

(A) BEDSIDE TEACHING

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
OG 13.2	Discuss the mechanism of normal labor						
OG 19.1	Describe and discuss the physiology of puerperium, its complications, diagnosis and management; counselling for contraception, puerperal sterilization						
OG 12.1	Define, classify and describe the etiology and pathophysiology, early detection, investigations; principles of management of hypertensive disorders of pregnancy and eclampsia, complications of eclampsia.						
OG 35.4	Describe, discuss, and demonstrate examination, differential diagnosis, and management of a case of suprapubic lump in abdomen						

OG 29.1	Describe and discuss the etiology; pathology; clinical features; differential diagnosis; investigations; principles of management, complications of fibroid uterus						
OG 27.3	Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management, and long-term implications of Pelvic Inflammatory Disease						

(B) SKILL LAB/OT/OPD/WARD PROCEDURES TO BE OBSERVED/PERFORMED

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
0G 13.3	Enumerate and discuss the physiology of normal labor, mechanism of labor in occipito-anterior presentation; monitoring of labor including partogramand management of third stage of labor.						
OG 13.6	Demonstrate the stages of normal labor in a simulated environment /mannequin						

OG 17.2	Counsel in a simulated environment, care of the breast, importance and the technique of breast-feeding						
OG 13.7	Observe the conduct of a normal vaginal delivery						
OG 37.1	Observe the performance of a Caesarean section						

(C) CERTIFIABLE SKILLS

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
OG 35.2	Arrive at a logical provisional diagnosis after examination. - (5 times)	1					
		2					
		3					
		4					
		5					
OG 19.2	Counsel in a simulated environment, contraception and puerperal Sterilization- (2 times)	1					
		2					

SUMMARY OF CASES ALLOTED IN LEARNER- DOCTOR METHOD

Case 1:

Case 2:

Case 3:

REFLECTIONS: LOGICAL PROVISIONAL DIAGNOSIS

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: COUNSELLING FOR CONTRACEPTION

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: CLINICAL POSTING 2

Sl. No	**Competency No:** **Date:** **Competency Detail:**
What happened?	
So what?	
What next?	
Faculty Signature: **Date:**	

CLINICAL POSTING 3	
Duration:	
Date of posting from:	**To:**
Unit:	

TOPICS TO BE TAUGHT

A	TOPICS – BEDSIDE TEACHING
	OBSTETRICS
1	OG 11.1: Multiple pregnancy
2	OG 12.3: Gestational diabetes mellitus
3	OG 12.4: Cardiac disease in pregnancy
4	OG 13.4: Preterm labour and PROM
5	OG 13.4: Post-dated and Post term Pregnancy
6	OG 14.1: Cephalopelvic Disproportion Assessment
	GYNECOLOGY
7	OG 31.1: Mass per vagina (Prolapse)
8	OG 24.1: AUB
9	OG 28.1: Infertility male, female
10	OG 33.1: Carcinoma Cervix
B	**PROCEDURES TO BE OBSERVED/PERFORMED**
1	OG 15.1: Cervical encircalage (OT)
2	OG 34.4: D & C (OT)
3	OG 37.1: Observe and assist caesarean deliveries (OT)
4	OG 37.3: Observe and assist Abdominal hysterectomy (OT)
5	OG36.3: Cervical punch biopsy [OT]
6	Pre-operative & post-operative care [OT]
7	OG 12.11: Ultrasonography (OPD)
8	OG 28.2: HSG(OPD)
9	OG 14.3: Malpresentations-OP/Breech/Transverse lie/Face presentation (Skill Lab)
10	OG 13.1: Dummy Pelvis (Skill lab)
11	OG 14.1: CPD (Skill Lab)
12	OG 16.2: Observe Management of PPH (Skill Lab)

13	Specimens
14	Drugs
15	Instruments
C	**CERTIFIABLE SKILLS**
1	OG 35.17: Episiotomy – 2times
2	OG 16.2: Management of PPH - 1/ 3 times
3	OG 35.15: Pap smear – 3 times
4	OG 33.4: VIA/VILI- 3 TIMES
5	OG 35.20: Female Urinary Catheterization- 1/3 times
6	OG 35.7: Communication skills – 2times
7	OG 13.7: Write 10 labour cases in record book.

LABOUR ROOM PROCEDURES

Sl. No	Activity
1	OG 8.4: Monitoring of labor including partogram and NST
2	OG 13.3: Induction of Labour
3	OG 13.3: Acceleration of labor
4	OG 35.16: Amniotomy
5	OG 15.2: Steps of Caesarean Section
6	OG 37.6: Operative obstetrics case–Forceps/vacuum extraction
7	OG 15.2: Steps of episiotomy
8	OG 13.7: Observe and assist 10 Normal Labour cases.

COMPETENCIES TO BE ACHEIVED

(A) BEDSIDE TEACHING

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
11.1	Describe the etiopathology, clinical features; diagnosis and investigations, complications, principles of management of multiple pregnancies						
12.3	Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on mother and foetus and the management during pregnancy and labor, and complications of diabetes in pregnancy. (OGCT)						
12.4	Define, classify and describe the etiology, pathophysiology, diagnosis, Investigations, criteria, adverse effects on mother and foetus and the management during pregnancy						

	and labor, and complications of heart diseases in pregnancy						
OG 13.4	Define, describe the causes, pathophysiology, diagnosis, investigations and management of preterm labor, PROM and post-dated pregnancy						
OG 14.1	Define and describe obstructed labor, its clinical features; prevention; and management						
OG 31.1	Describe and discuss the etiology, classification, clinical features, diagnosis, investigations, principles of management and preventive aspects of prolapse of uterus						
OG 24.1	Define, classify and discuss abnormal uterine bleeding, its aetiology, clinical features, investigations, diagnosis and management						
OG 33.1	Classify, describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations and staging of cervical cancer						
OG 28.1	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						

(B) SKILL LAB/OT/OPD/WARD PROCEDURES TO BE OBSERVED/PERFORMED

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
OG 37.3	Observe and assist in the performance of Hysterectomy– abdominal/ vaginal						
OG 37.1	Observe and assist in the performance of a Caesarean section						
OG 8.8	Enumerate the indications and use of ultrasound in the initial assessment and monitoring in pregnancy						

OG 15.1	Enumerate and describe the indications and steps of common obstetric competencies, technique and complications: cervical cerclage						
OG 36.3	Demonstrate the correct technique of punch biopsy of cervix in a simulated /supervised environment						
OG 28.2	Enumerate the assessment and restoration of tubal patency						
OG 34.4	Operative Gynaecology : Understand and describe the technique and complications: Dilatation & Curettage (D&C);						
OG 14.3	Describe and discuss the classification; diagnosis; management of abnormal labor (occipitoposterior position, breech, face, transverse lie)						
OG 13.1	Enumerate and discuss the diameters of maternal pelvis and types						
OG 8.5	Describe and demonstrate pelvic assessment & evaluation of CPD in a model						

(C) CERTIFIABLE SKILLS

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
OG 35.17	Demonstrate the correct technique to perform and suture episiotomies in a simulated/ supervised environment – 2times	1					
		2					
OG 35.7	Demonstrate interpersonal and communication skills benefitting a physician in order to discuss illness and its outcome with patient and family- 2 times	1					
		2					
OG 35.15	Obtain a PAP smear in a stimulated environment	1					
		2					
		3					
OG 33.4	Enumerate the methods to prevent cancer of cervix including visual inspection	1					
		2					

	with acetic acid (VIA), visual inspection of cervix With Lugol' s iodine(VILI), pap smear and colposcopy	3					
OG 16.2	Describe and demonstrate different techniques used to manage PPH including bimanual and aortic compression, intrauterine balloon tamponade, non-pneumatic anti shock garment Application [1out of 3 times]	1					
OG 35.20	Demonstrate the correct technique of urinary catheterization in a simulated/ supervised environment [1out of 3 times]	1					

SUMMARY OF CASES ALLOTED IN LEARNER- DOCTOR METHOD

CASE 1:

CASE 2:

CASE 3:

REFLECTIONS: EPISOTOMY

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: PAP SMEAR

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: VIA / VILI

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: COMMUNICATION SKILLS

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: CLINICAL POSTING 3

What happened?
So what?
What next?
Faculty Signature: **Date:**

LABOUR ROOM PROCEDURES

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
0G 8.4	Describe and demonstrate clinical monitoring of maternal and fetal well- being including NST & BPP						
OG 13.3	Induction of Labour						
OG 13.3	Acceleration of labor						
OG 35.16	Demonstrate the correct technique to perform artificial rupture of membranes In a simulated/ supervised environment						
OG 15.2	Observe /Assist in operative obstetrics cases –including-CS, Forceps, vacuum extraction, and breech delivery						
OG 37.6	Observe and assist in the performance of outlet forceps application of vacuum and breech delivery						

OG 15.2	Observe and assist in the performance of an episiotomy and demonstrate the correct suturing technique of an episiotomy in a simulated environment.						
OG 13.7	Observe and assist the conduct of a normal vaginal delivery. Write 10 labour cases in the record book.						

REFLECTIONS: LABOUR ROOM POSTING

What happened?
So what?
What next?
Faculty Signature: **Date:**

CLINICAL POSTING 4	
Duration:	
Date of posting from:	**To:**
Unit:	

TOPICS TO BE TAUGHT

A	TOPICS – BEDSIDE TEACHING
	OBSTETRICS
1	OG 19.1: Abnormal puerperium
2	OG 8.10: Previous LSCS
3	OG 12.8: Rh Incompatibility
	GYNECOLOGY
4	OG 32.2: Postmenopausal bleeding
5	34.2: Carcinoma Ovary
6	OG 34.1: Carcinoma Endometrium
7	OG 36.1: Plan of management for any case
B	**PROCEDURES TO BE OBSERVED/PERFORMED**
1	OG 16.2: Complications of3rdstage of labour (Skill Lab)
2	OG 35.18: Copper-T Insertion (Skill Lab)
3	OG 35.10: Informed Consent (OT)
4	OG 37.3: Steps of Abdominal Hysterectomy (OT)
5	OG 37.3: Steps of Vaginal Hysterectomy (OT)
6	OG 19.3: Steps of Tubal Ligation (OT)
7	OG 37.2: Steps of Laparotomy (OT)
8	OG 38.1: Laparoscopy (OT)
9	OG 38.2: Hysteroscopy (OT)
10	OG 38.3: Laparoscopic sterilization(OT)
C	**CERTIFIABLE SKILLS**
1	OG 35.11: Case Records -5 times
2	OG 35.12: Discharge Summary-2 times
3	OG 35.13: Referral Note-2 times
4	OG 16.2: Management of PPH -2/3 times
5	OG 35.20: Female Urinary Catheterization- 2/3 times

COMPETENCIES TO BE ACHIEVED

A. BEDSIDE TEACHING

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
OG 19.1	Describe and discuss the complications of puerperium, its diagnosis and management;						
OG 8.10	Describe and discuss cases of post caesarean pregnancy and their management. (VBAC)						
OG 12.8	Describe the mechanism, prophylaxis, fetal complications, diagnosis and management of iso immunization in pregnancy						
OG 32.2	Enumerate the causes of post-menopausal bleeding and describe its management						
OG 34.2	Describe and discuss etiology, pathology, classification, staging of ovarian cancer, clinical features, differential diagnosis, investigations,						

	principal of management including staging laparotomy						
OG 34.1	Describe and discuss etiology, pathology, staging clinical features, differential diagnosis, investigations, staging laparotomy and principles of management of endometrial cancer						
OG 36.1	Plan and institute a line of treatment, which is need based, cost effective and appropriate for common conditions taking in to consideration (a) Patient (b) Disease (c) Socio-economic status (d) Institution/ Governmental guidelines.						

B. SKILL LAB/OT/OPD/WARD PROCEDURES TO BE OBSERVED/PERFORMED

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
OG 16.2	Describe and demonstrate different techniques used to manage PPH including bimanual and aortic compression, intrauterine balloon tamponade, non-pneumatic anti shock garment application						
OG 35.18	Demonstrate the correct technique to insert and remove an IUD in a simulated /supervised environment						
OG35.1 0	Obtain informed consent for any examination /procedure						
OG 19.3	Observe/assist in the performance of tubal ligation						
OG 37.3	Observe and assist in the performance of Hysterectomy– abdominal/ vaginal						

OG 37.2	Observe and assist in the performance of Laparotomy						
OG 38.1	Observe Laparoscopy						
OG 38.2	Observe Hysteroscopy						
OG 38.3	Observe Lap sterilization						
OG 35.3	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.						

C. CERTIFIABLE SKILLS

Competency addressed	**Name of Activity**	**Date completed dd- mm-yyyy**	**Attempt at activity** First of 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**
OG 16.2	Describe and demonstrate different techniques used to manage PPH including bimanual and aortic compression, intrauterine balloon tamponade, non-pneumatic anti shock garment Application (2 out of 3 times)	2					
		3					
OG 35.20	Demonstrate the correct technique of urinary catheterization in a simulated/supervised environment (2 out of 3 times)	2					
		3					
OG 35.11	Write a complete case record with all necessary details-5 times	1					
		2					
		3					
		4					
		5					

OG 35.12	Write a proper discharge summary with all relevant information-2 times	1					
		2					
OG 35.13	Write a proper referral note to secondary or tertiary centres or to other physicians with all necessary details.- 2 times	1					
		2					

SUMMARY OF CASES ALLOTED IN LEARNER- DOCTOR METHOD

CASE 1:

CASE 2:

CASE 3:

REFLECTIONS: CASE RECORDS

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: DISCHARGE SUMMARY

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: REFERRAL NOTE

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: MANAGEMENT OF PPH

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: FEMALE URINARY CATHETARISATION

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: CLINICAL POSTING 4

What happened?
So what?
What next?
Faculty Signature: **Date:**

REFLECTIONS: LEARNER-DOCTOR METHOD

Sl. No	**Competency No:** **Date:** **Competency Detail:**
What happened?	
So what?	
What next?	
Faculty Signature: **Date:**	

CERTIFIABLE SKILLS

Competency	Objectives	Domain (S/SH)	Remarks		Sign of Faculty
			Completed	Remedial	
OG 35.8	Determine gestational age, EDD and obstetric formula		5 Times		
OG 35.1	Obtain a logical sequence of history, and perform a humane and thorough clinical examination, excluding internal examinations (per-rectal and per-vaginal)		5 Times		
OG 35.14	Demonstrate the correct use of appropriate universal precautions for self-protection against HIV and hepatitis and counsel patients		2 Times		
OG 35.2	Arrive at a logical provisional diagnosis after examination.		5 Times		
OG 19.2	Counsel in a simulated environment, contraception and puerperal Sterilization		2 Times		
OG 35.17	Demonstrate the correct technique to perform and suture episiotomies in a simulated/ supervised environment		2 Times		
OG 35.7	Demonstrate inter-personal and communication skills befitting a physician in order to discuss illness and its outcome with patient and family		2 Times		
OG 35.15	Obtain a PAP smear in a stimulated environment		3 Times		
OG 33.4	Enumerate the methods to prevent cancer of cervix including visual inspection with acetic acid (VIA), visual inspection of cervix with Lugol's iodine (VILI), pap smear and colposcopy		3 Times		
OG 16.2	Describe and demonstrate different techniques used to manage PPH including bimanual and aortic compression, intrauterine balloon tamponade, non-pneumatic anti shock garment Application		3 Times		
OG 35.20	Demonstrate the correct technique of urinary catheterization in a simulated/supervised environment		3 Times		
OG 35.11	Write a complete case record with all necessary details		5 Times		
OG 35.12	Write a proper discharge summary with all relevant information		2 Times		
OG 35.13	Write a proper referral note to secondary or tertiary centres or to other physicians with all necessary details.		2 Times		

REFLECTIONS: CERTIFIABLE SKILLS

Sl. No	Competency No: Date: Competency Detail:
What happened?	
So what?	
What next?	
Faculty Signature: Date:	

AETCOM

Sl. No	Date	Topic	Name of Faculty	Signature of Faculty
1		**MODULE 4.2**: Case studies in medico-legal and ethical situations		
2		**MODULE 4.7:** Case studies in ethics and patient autonomy		
3		**MODULE 4.8:** Dealing with death		

REFLECTIONS: AETCOM

What happened?
So what?
What next?
Faculty Signature: **Date:**

INTEGRATED TEACHING

Sl. No	Date	Topic	Department included	Teaching learning method	Name of Faculty (with department)	Presented /Attended	Signature of Faculty
1		OG 4.1- Fetal develop mental Anatomy	Anatomy & OBG				
2		OG 8.9: Rational use of Drugs & Prescription in pregnancy	Pharmacology & OBG				
3		OG 21.1 & 21.2: RCH programmes	Community Medicine & OBG				
4		OG 12.1: Hypertension in pregnancy	Physiology; Medicine & OBG				
5		OG 12.2: Nutrition & Anemia in pregnancy	Biochemistry; Pathology; Medicine & OBG				
6		OG 12.9: Acute Abdomen in pregnancy	CMO; Surgery & OBG				
7		OG 12.11: USG in obstetrics	Radiology & OBG				
8		OG 8.4: Neonatal Resuscitation	Paediatrics & OBG				
9		OG 33.4: Screening for Genital Malignancies	Pathology; PSM & OBG				
10		OG 20.1 to 20.3: MTP & PCPNDT Act	Forensic Medicine & OBG				

Each of this topic will be announced earlier, a faculty co-ordinator will coordinate with concerned departments and organize student symposium/ group discussion/ or panel discussion. Each topic is allotted 2 hours.

REFLECTIONS: INTEGRATED TEACHING

What happened?
So what?
What next?
Faculty Signature: **Date:**

SELF DIRECTED LEARNING

Sl. No	Date	Topic with Competency number	Teaching Learning Method	Presented/ Attended	Sign of Faculty
1					
2					
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49					
50					

REFLECTIONS: SELF DIRECTED LEARNING

What happened?
So what?
What next?
Faculty Signature: **Date:**

RESEARCH ACTIVITIES AND AWARDS

Sl. No.	Date	Name of the Activity	Signature of the Faculty

DEPARTMENT OF GENERAL SURGERY

Goals:

At the end of training in General Surgery, the student should be able to:

1. Demonstrate understanding of the structural and functional basis, principles of diagnosis and management of common surgical problems in adults and children.
2. Choose, calculate and administer appropriately intravenous fluids, electrolytes, blood and blood products based on the clinical condition.
3. Apply the principles of asepsis, sterilization, disinfection, rational use of prophylaxis, therapeutic utilities of antibiotics and universal precautions in surgical practice.
4. Demonstrate knowledge about common malignancies in India and their prevention, early detection and therapy.
5. Perform common diagnostic and surgical procedures at the primary care level.
6. Demonstrate knowledge about organ retrieval from deceased donor and living donor.
7. Administer informed consent and counsel patient prior to surgical procedures.
8. Describe etiology, pathophysiology, principles of diagnosis and management of common surgical problems including emergencies in adult and children.
9. Describe common malignancies in the country and their management including prevention.
10. Enumerate different types of aesthetic agents, their indications, contraindications, mode of administration and side effects.
11. Plan various laboratory tests for surgical conditions and interpret the results.
12. Identify and manage patients of haemorrhagic, septicaemia and other types of shock.
13. Recognize, resuscitate, stabilize and provide Basic Life Support to patients following trauma.
14. Monitor patient of head, chest, spinal and abdominal injuries, both in adults and children.
15. Provide primary care for a patient of burns.
16. Acquire principles of operative surgery including preoperative, operative and post-operative care and monitoring.
17. Treat open wounds, including implantation of preventive measures against tetanus and gas gangrene.

GENERAL SURGERY (CODE: SU)

PHASE -II



PHASE-III, PART-I



PHASE-III, PART-II



PHASE - II

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number Required to Certify P
GENERAL SURGERY							
Topic1: Metabolic response to injury		**Number of competencies: (03)**			**Number of competencies that require certification: (NIL)**		
SU1.1	Describe Basic concepts of homeostasis, enumerate the metabolic changes in injury and their mediators.	K	KH	Y	LGT, Bed side clinic, SGT	Written/Viva voce	
SU1.2	Describe the factors that affect the metabolic response to injury.	K	KH	Y	LGT, Bed side clinic, SGT	Written/Viva voce	
SU1.3	Describe basic concepts of perioperative care.	K	KH	Y	LGT, Bed side clinic, SGT	Written/Viva voce	
Topic 2: Shock		**Number of competencies: (03)**			**Number of competencies that require certification: (NIL)**		
SU2.1	Describe Pathophysiology of shock, types of shock & principles of Resuscitation including fluid replacement and monitoring.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU2.2	Describe the clinical features of shock and its appropriate treatment.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU2.3	Communicate and counsel patients and families about the treatment and prognosis of shock demonstrating empathy and care	A/C	SH	Y	DOAP	Skill assessment	
Topic 3: Blood and blood components		**Number of competencies: (03)**			**Number of competencies that require certification: (NIL)**		
SU3.1	Describe the Indications and appropriate use of blood and blood products and complications of blood transfusion.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU3.2	Observe blood transfusions.	S	SH	Y	SGT, DOAP	Skills assessment, Log book	
SU3.3	Counsel patients and family/friends for blood transfusion and blood donation.	A/C	SH	Y	DOAP	Skills assessment	
Topic 4: Burns		**Number of competencies: (04)**			**Number of competencies that require certification: (NIL)**		
SU4.1	Elicit document and present history in a case of Burns and perform physical examination. Describe Pathophysiology of Burns.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU4.2	Describe Clinical features, Diagnose type and extent of burns and plan appropriate treatment.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU4.3	Discuss the Medico legal aspects in burn injuries.	K	KH	Y	LGT, SGT	Written/Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number Required to Certify P
SU4.4	Communicate and counsel patients and families on the outcome and rehabilitation demonstrating empathy and care.	A/C	SH	Y	SGT, Role-play, Skills assessment	Viva voce	
Topic 5: Wound healing and wound care		**Number of competencies: (04)**			**Number of competencies that require certification: (NIL)**		
SU5.1	Describe normal wound healing and factors affecting healing.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU5.2	Elicit, document and present a history in a patient presenting with wounds.	C	SH	Y	LGT, SGT	Written/Viva voce	
SU5.3	Differentiate the various types of wounds, plan and observe management of wounds.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU5.4	Discuss medico legal aspects of wounds	K	KH	Y	LGT, SGT	Written/Viva voce	

Topic 6: Surgical infections		**Number of competencies: (02)**			**Number of competencies that require certification: (NIL)**		
SU6.1	Define and describe the aetiology and pathogenesis of surgical Infections	K	KH	Y	LGT, SGT	Written/Viva voce	
SU6.2	Enumerate Prophylactic and Therapeutic Antibiotics Plan appropriate management	K	KH	Y	LGT, SGT	Written/Viva voce	
Topic 7: Surgical Audit and Research		**Number of competencies: (02)**			**Number of competencies that require certification: (NIL)**		
SU7.1	Describe the Planning and conduct of Surgical audit	K	KH	Y	LGT, SGT	Written/Viva voce	
SU7.2	Describe the principles and steps of clinical research in General Surgery	K	KH	Y	LGT, SGT	Written/Viva voce	
Topic 8: Ethics		**Number of competencies: (03)**			**Number of competencies that require certification: (NIL)**		
SU8.1	Describe the principles of Ethics as it pertains to General Surgery	K	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	-
SU8.2	Demonstrate Professionalism and empathy to the patient undergoing General Surgery	A/C	SH	Y	LGT, SGT, DOAP	Written/Viva voce/ Skill assessment	
SU8.3	Discuss Medico-legal issues in surgical practice	A/C	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	
Topic 9: Investigation of surgical patient		**Number of competencies (03)**			**Number of competencies that require certification: (NIL)**		
SU9.1	Choose appropriate biochemical, microbiological, pathological, imaging investigations and interpret the investigative data in a surgical patient	C	KH	Y	LGT, SGT	Written/ Viva voce	
SU9.2	Biological basis for early detection of cancer and multi-disciplinary approach in management of cancer	C	KH	Y	LGT, SGT	Written/Viva voce	
SU9.3	Communicate the results of surgical investigations and counsel the patient appropriately	C	SH	Y	DOAP	Skill assessment	
Topic 10: Pre, intra and post- operative management.		**Number of competencies: (04)**			**Number of competencies that require certification: (NIL)**		
SU10.1	Describe the principles of perioperative management of common surgical competencies	K	KH	Y	LGT, SGT	Written/Viva voce	
SU10.2	Describe the steps and obtain informed consent in a simulated Environment	S/A/C	SH	Y	DOAP	Skill assessment/ Log book	

SU10.3	Observe common surgical competencies and assist in minor surgical competencies; Observe emergency lifesaving surgical competencies.	S	KH	Y	DOAP	Log book	
SU10.4	Perform basic surgical Skills such as First aid including suturing and minor surgical competencies in simulated environment	S	P	Y	DOAP	Skill assessment	
Topic 11: Anaesthesia and pain management		**Number of competencies: (06)**			**Number of competencies that require certification: (NIL)**		
SU11.1	Describe principles of Preoperative assessment.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU11.2	Enumerate the principles of general, regional, and local Anaesthesia.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU11.3	Demonstrate maintenance of an airway in a mannequin or equivalent	S	SH	Y	DOAP	Skill assessment	
SU11.4	Enumerate the indications and principles of daycare General Surgery	K	KH	Y	LGT, SGT	Written/Viva voce	
SU11.5	Describe principles of providing post-operative pain relief and management of chronic pain.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU11.6	Describe Principles of safe General Surgery	K	KH	Y	LGT, SGT	Written/Viva voce	
Topic 12: Nutrition and fluid therapy		**Number of competencies: (03)**			**Number of competencies that require certification: (NIL)**		
SU12.1	Enumerate the causes and consequences of malnutrition in the surgical patient	K	KH	Y	LGT, SGT, Bedside clinic	Written/Viva voce	
SU12.2	Describe and discuss the methods of estimation and replacement of the fluid and electrolyte requirements in the surgical patient	K	KH	Y	LGT, SGT, Bedside clinic	Written/Viva voce	
SU12.3	Discuss the nutritional requirements of surgical patients, the methods of providing nutritional support and their complications	K	KH	Y	LGT, SGT, Bedside clinic	Written/Viva voce	
Topic 13: Transplantation		**Number of competencies: (04)**			**Number of competencies that require certification: (NIL)**		
SU13.1	Describe the immunological basis of organ transplantation	K	KH	Y	LGT, SGT	Written/Viva voce	
SU13.2	Discuss the Principles of immunosuppressive therapy. Enumerate Indications, describe surgical principles, management of organ Transplantation	K	KH	Y	LGT, SGT	Written/Viva voce	
SU13.3	Discuss the legal and ethical issues concerning organ donation	K	KH	Y	LGT, SGT	Written/Viva voce	
SU13.4	Counsel patients and relatives on organ donation in a simulated environment	S	SH	Y	DOAP	Skill assessment	

Topic 14: Basic Surgical Skills		**Number of competencies: (04)**			**Number of competencies that require certification: (NIL)**		
SU14.1	Describe Aseptic techniques, sterilization and disinfection.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU14.2	Describe Surgical approaches, incisions and the use of appropriate instruments in Surgery in general.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU14.3	Describe the materials and methods used for surgical wound closure and anastomosis (sutures, knots and needles)	K	KH	Y	LGT, SGT	Written/Viva voce	
SU14.4	Demonstrate the techniques of asepsis and suturing in a simulated environment	S	SH	Y	DOAP	Skill assessment/Log book	
Topic 15: Biohazard disposal		**Number of competencies: (01)**			**Number of competencies that require certification: (NIL)**		
SU15.1	Describe **c**lassification of hospital waste and appropriate methods of disposal.	K	KH	Y	LGT, SGT	Written/Viva voce	
Topic 16: Minimally invasive General Surgery		**Number of competencies: (01)**			**Number of competencies that require certification: (NIL)**		
SU16.1	Minimally invasive General Surgery: Describe indications advantages and disadvantages of Minimally invasive General Surgery	K	K	Y	LGT, Demonstration, Bedside clinic, Discussion	Theory/ Practical/ Orals/Written/Viva voce	
Topic 17: Trauma		**Number of competencies: (10)**			**Number of competencies that require certification: (NIL)**		
SU17.1	Describe the Principles of FIRSTAID	S	KH	Y	LGT, SGT	Written/Viva voce	
SU17.2	Demonstrate the steps in Basic Life Support. Transport of injured patient in a simulated environment	S	SH	Y	DOAP	Skill assessment	
SU17.3	Describe the Principles in management of mass casualties	K	KH	Y	LGT, SGT	Written/Viva voce	
SU17.4	Describe Pathophysiology, mechanism of head injuries	K	KH	Y	LGT, SGT	Written/Viva voce	
SU17.5	Describe clinical features for neurological assessment and GCS in head injuries	K	KH	Y	LGT, SGT	Written/Viva voce	
SU17.6	Chose appropriate investigations and discuss the principles of management of head injuries	K	KH	Y	LGT, SGT	Written/Viva voce	

SU17.7	Describe the clinical features of soft tissue injuries. Chose appropriate investigations and discuss the principles of management.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU17.8	Describe the pathophysiology of chest injuries.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU17.9	Describe the clinical features and principles of management of chest injuries.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU17.10	Demonstrate Airway maintenance. Recognize and manage tension pneumothorax, hemothorax and flailchest in simulated environment.	S	SH	Y	DOAP	Skill assessment/Log book	
Topic 18: Skin and subcutaneous tissue		**Number of competencies: (03)**			**Number of competencies that require certification: (NIL)**		
SU18.1	Describe the pathogenesis, clinical features and management of various cutaneous and subcutaneous infections.	K	KH	Y	LGT, Small group Discussion	Written/Viva voce	
SU18.2	Classify skin tumors Differentiate different skin tumors and discuss their management.	K	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	
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.	S	SH	Y	Bedside clinic, SGT, DOAP	Skill assessment	
Topic 19: Developmental anomalies of face, mouth and jaws		**Number of competencies: (02)**			**Number of competencies that require certification: (NIL)**		
SU19.1	Describe the etiology and classification of cleftlip and palate	K	KH	Y	LGT, Small group Discussion	Written/Viva voce	
SU19.2	Describe the Principles of reconstruction of cleftlip and palate	K	KH	Y	LGT, Small group Discussion	Written/Viva voce	
Topic 20: Oropharyngeal cancer		**Number of competencies: (02)**			**Number of competencies that require certification: (NIL)**		
SU20.1	Describe etiopathogenesis of oral cancer symptoms and signs of oropharyngeal cancer.	K	KH	Y	LGT, SGT	Written/Viva voce	

SELF DIRECTED LEARNING (SDL)	
1	Blood Transfusion
2	Damage Control Surgery
3	USG Guided Aspiration Of Cystic Lesions EG. Liver Abscess
4	Preparation Of Diabetic Patients For Elective Surgery
5	ICD Tube Insertion
6	REHABILITATION (Visit To DDRC)
7	Basic Laparoscopic Procedures
8	Upper GI Endoscopy
9	Colonoscopy
10	VATS

SMALL GROUP DISCUSSION (SGD)	
1	Shock and Hemorrhage
2	Ulcers in Oral Cavity
3	**(ITP)** **Premalignant Lesions of Oral Cavity**
4	Lymphadenopathy
5	**(ITP)** **Management of Oral Cavity Malignancies**
6	Chest Injuries – I
7	Chest Injuries – II
8	Neck Swelling Midline other than Thyroid
9	Neck Swelling Lateral
10	HIV and Surgeon
11	Thyroid Swelling
12	**(ITP)** **Hyper Thyroidism**
13	Surgeries on Thyroid
14	Breast Lumps (benign)
15	Breast Lumps (Malignant)

Topic 21: Disorders of salivary glands		**Number of competencies: (02)**			**Number of competencies that require certification: (NIL)**		
SU21.1	Describe surgical anatomy of the salivary glands, pathology, and clinical presentation of disorders of salivary glands	K	KH	Y	LGT, SGT	Written/Viva voce	
SU21.2	Enumerate the appropriate investigations and describe the Principles of treatment of disorders of salivary glands	K	KH	Y	LGT, SGT	Written/Viva voce	
Topic 22: Endocrine General Surgery: Thyroid and parathyroid		**Number of competencies: (06)**			**Number of competencies that require certification: (NIL)**		
SU22.1	Describe the applied anatomy and physiology of thyroid	K	KH	Y	LGT, SGT	Written/Viva voce	
SU22.2	Describe the etiopathogenesis of thyroidal swellings	K	KH	Y	LGT, SGT	Written/Viva voce	
SU22.3	Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their Management	S	SH	Y	Bedside clinic	Skill assessment	
SU22.4	Describe the clinical features, classification and principles of management of thyroid cancer	K	KH	Y	LGT, SGT	Written/Viva voce	
SU22.5	Describe the applied anatomy of parathyroid	K	KH	Y	LGT, SGT	Written/Viva voce	
SU22.6	Describe and discuss the clinical features of hypo - and Hyperparathyroidism and the principles of their management	K	KH	Y	LGT, SGT	Written/Viva voce	
Topic 23: Adrenal glands		**Number of competencies: (03)**			**Number of competencies that require certification: (NIL)**		
SU23.1	Describe the applied anatomy of adrenal glands	K	KH	Y	LGT, SGT	Written/Viva voce	
SU23.2	Describe the etiology, clinical features and principles of management of disorders of adrenal gland	K	KH	Y	LGT, SGT	Written/Viva voce	
SU23.3	Describe the clinical features, principles of investigation and management of Adrenal tumors	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce	
SU24.1	Describe the clinical features, principles of investigation, prognosis and management of pancreatitis.	K	KH	Y	LGT, SGT	Written/Viva voce	
SU24.2	Describe the clinical features, principles of investigation, prognosis and management of pancreatic endocrine tumours	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce	
SU24.3	Describe the principles of investigation and management of Pancreatic disorders including pancreatitis and endocrine tumors.	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	

Topic 25: Breast		Number of competencies: (05)			Number of competencies that require certification: (NIL)		
SU25.1	Describe applied anatomy and appropriate investigations for breast disease	K	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	
SU25.2	Describe the etiopathogenesis, clinical features and principles of management of benign breast disease including infections of the Breast	K	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	
SU25.3	Describe the etiopathogenesis, clinical features, Investigations and principles of treatment of benign and malignant tumours of breast.	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
SU25.4	Counsel the patient and obtain informed consent for treatment of malignant conditions of the breast	A/C	SH	Y	DOAP	Skill assessment	
SU25.5	Demonstrate the correct technique to palpate the breast for breast swelling in a mannequin or equivalent	S	SH	Y	DOAP	Skill assessment	
Topic 26: Cardio-thoracic General Surgery- Chest - Heart and Lungs		**Number of competencies: (04)**			**Number of competencies that require certification: (NIL)**		
SU26.1	Outline the role of surgery in the management of coronary heart disease, valvular heart diseases and congenital heart diseases	K	K	Y	LGT, SGT	Written/Viva voce	
SU26.3	Describe the clinical features of mediastinal diseases and the principles of management	K	K	Y	LGT, SGT	Written/Viva voce	
SU26.4	Describe the etiology, pathogenesis, clinical features of tumors of lung and the principles of management	K	K	Y	LGT, SGT	Written/Viva voce	
SU27.1	Describe the etiopathogenesis, clinical features, investigations and principles of treatment of occlusive arterial disease.	K	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	
SU27.2	Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease	S	SH	Y	DOAP	Skill assessment	
SU27.3	Describe clinical features, investigations and principles of management of vasospastic disorders	K	KH	Y	LGT, SGT	Written/Viva voce	
SU27.4	Describe the types of gangrene and principles of amputation	K	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	
SU27.5	Describe the applied anatomy of venous system of lower limb	K	K	Y	LGT,SGT	Written/Viva voce	

SU27.6	Describe pathophysiology, clinical features, Investigations and principles of management of DVT and Varicose veins	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
SU27.7	Describe pathophysiology, clinical features, investigations and principles of management of Lymphedema, lymphangitis and Lymphomas	K	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	
SU27.8	Demonstrate the correct examination of the lymphatic system	S	SH	Y	DOAP, Bedside clinic	Skill assessment	
Topic 28: Abdomen		**Number of competencies: (18)**			**Number of competencies that require certification: (NIL)**		
SU28.1	Describe pathophysiology, clinical features, Investigations and principles of management of Hernias	K	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	
SU28.2	Demonstrate the correct technique to examine the patient with hernia and identify different types of hernias.	S	SH	Y	DOAP, Bedside clinic	Skill assessment	
SU28.3	Describe causes, clinical features, complications and principles of management of peritonitis	K	K	Y	LGT, SGT, Bedside clinic	Written/Viva voce	
SU28.4	Describe pathophysiology, clinical features, investigations and principles of management of Intra-abdominal abscess, mesenteric cyst, and retroperitoneal tumors	K	K	Y	LGT, SGT, Demonstration	Written/Viva voce	
SU28.5	Describe the applied Anatomy and physiology of esophagus	K	K	Y	LGT, SGT, Demonstration	Written/Viva voce	
SU28.6	Describe the clinical features, investigations and principles of management of benign and malignant disorders of esophagus	K	K	Y	LGT, SGT, Demonstration	Written/Viva voce	
SU28.7	Describe the applied anatomy and physiology of stomach	K	KH	Y	LGT, SGT	Written/Viva voce	
SU28.8	Describe and discuss the aetiology, the clinical features, investigations and principles of management of congenital hypertrophicpyloricstenosis, Peptic ulcer disease, Carcinoma stomach	K	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	
SU28.9	Demonstrate the correct technique of examination of a patient with disorders of the stomach	S	SH	Y	DOAP, Bedside clinic	Skill assessment	
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	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce	
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	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce	

SU28.12	Describe the applied anatomyofbiliary system. Describe the clinical features, investigations and principles of management of diseases of biliary system	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce	
SU28.13	Describe the applied anatomy of small and large intestine	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce	
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	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce	
SU28.15	Describe the clinical features, investigations and principles of management of diseases of Appendix including appendicitis and its complications.	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
SU28.16	Describe applied anatomy including congenital anomalies of the rectum and anal canal	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
SU28.17	Describe the clinical features, investigations and principles of management of common anorectal diseases	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
SU28.18	Describe and demonstrate clinical examination of abdomen. Order relevant investigations. Describe and discuss appropriate treatment plan	S	SH	Y	Bedside clinic, DOAP, SGT	Skill assessment	
Topic 29: Urinary System		**Number of competencies: (11)**			**Number of competencies that require certification: (NIL)**		
SU29.1	Describe the causes, investigations and principles of management of Hematuria	K	KH	Y	LGT, SGT	Written/Viva voce	
SU29.2	Describe the clinical features, investigations and principles of management of congenital anomalies of genito urinary system	K	KH	Y	LGT, SGT	Written/Viva voce	
SU29.3	Describe the Clinical features, Investigations and principles of management of urinary tract infections	K	KH	Y	LGT, SGT	Written/Viva voce	
SU29.4	Describe the clinical features, investigations and principles of management of hydronephrosis	K	KH	Y	LGT, SGT	Written/Viva voce	
SU29.5	Describe the clinical features, investigations and principles of management of renal calculi	K	KH	Y	LGT, SGT	Written/Viva voce	
SU29.6	Describe the clinical features, investigations and principles of management of renal tumours	K	KH	Y	LGT, SGT	Written/Viva voce	
SU29.7	Describe the principles of management of acute and chronic retention of urine	K	KH	Y	LGT, SGT	Written/Viva voce	

SU29.8	Describe the clinical features, investigations and principles of management of bladder cancer	K	KH	Y	LGT, SGT	Written/Viva voce	
SU29.9	Describe the clinical features, investigations and principles of management of disorders of prostate	K	KH	Y	LGT, SGT	Written/Viva voce/ Skill assessment	
SU29.10	Demonstrate a digital rectal examination of the prostateina mannequin or equivalent	S	SH	Y	DOAP	Skill assessment	
SU29.11	Describe clinical features, investigations and management of urethral strictures	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
Topic 30: Penis, Testis and scrotum		**Number of competencies: (06)**			**Number of competencies that require certification: (NIL)**		
SU30.1	Describe the clinical features, investigations and principles of management of phimosis, paraphimosis and carcinoma penis.	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
SU30.2	Describe the applied anatomy clinical features, investigations and principles of management of undescended testis.	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
SU30.3	Describe the applied anatomy clinical features, investigations and principles of management of epidydimo-orchitis	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
SU30.4	Describe the applied anatomy clinical features, investigations and principles of management of varicocele	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
SU30.5	Describe the applied anatomy, clinical features, investigations and principles of management of Hydrocele	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	
SU30.6	Describe classification, clinical features, investigations and principles of management of tumours of testis	K	KH	Y	LGT, SGT, Demonstration	Written/Viva voce/ Skill assessment	

TOPICS FOR SELF DIRECTED LEARNING

Sl. No	
1	Rehabilitation (visit to DDRC)
2	Cholecysteroses
3	Gastric polyps
4	Minimal invasive hernia surgeries
5	Lasers and Surgery
6	Short bowel syndrome
7	Entero cutaneous fistula
8	Diverticular diseases of colon
9	Endoscopy- Upper GI and Lower GI
10	ERCP
11	Metabolic surgery
12	Post gastrectomy complications
13	Colonic pseudo obstruction
14	Irritable bowel syndrome
15	Preparation of diabetic patients for Elective Surgery
16	Pseudo myxoma peritonie

Sl. No	Small Group Discussion (SGD)
1	Scrotal Swellings (Benign)
2	Scrotal Swellings (Malignant)
3	Groin Hernias (Inguinal)
4	Ventral Hernia
5	**Acid Peptic Disease- ITP {Physiology, Pathology, Medicine}**
6	Right Hypochondriac Mass
7	Epigastric Mass
8	Umbilical Mass Su28.1
9	Left Hypochondriac Mass
10	Umbilical Mass (Continue)
11	Left Iliac Fossa Mass
12	Right Iliac Fossa Mass
13	Hypogastric/Suprapubic Mass
14	Renal Mass(Benign)
15	Renal Mass(Malignant)
16	Renal Mass(Malignant)
17	**Obstructive Jaundice Teacher** **ITP {Anatomy, Pathology, Radiology, Medicine}**
18	PVD-Acute
19	PVD Chronic
20	Av Malformations
21	Mesenteric Ischemia
22	Acute Scrotum In Children
23	Acute Retention Of Urine And Hematuria
24	BPH and CA Prostrate
25	**Genitourinary Tuberculosis-** **{Medicine, Urology, Obgy}**
26	Thoracic Injuries
27	Abdominal Injuries (Penetrating)
28	Abdominal Injuries (Blunt)
29	Neck Injuries
30	Dysphagia – Causes And Evaluation

31	Dysphagia- Management
32	**Critically Ill Patients ITP {Anaesthesia, Emergency Medicine}**
33	Upper GI Bleeding
34	Lower GI Bleeding
35	CA Stomach SU
36	Acute Pancreatitis
37	Chronic Pancreatitis
38	Acute Abdomen (Other Than Pregnancy)
39	Acute Abdomen (Continued)
40	Acute Intestinal Obstruction-Adult
41	Acute Intestinal Obstruction-Pediatrics
42	**Abdominal Tuberculosis Other Than Gut - V {Pathology, Medicine, Radiology}**
43	Pelvic Trauma
44	Head Injuries
45	Burn Injuries
46	Grafts And Flaps
47	Amputations
48	**Diabetic Foot –ITP {Biochemistry, Microbiology, Medicine, Physiotherapy}**
49	Tracheo Esophageal Fistula
50	Tropical Surgical Diseases
51	Hand Abscesses
52	Hand Injuries
53	Media Stinal Diseases
54	**Lung Tumours**
55	Short Gut Syndrome
56	Tumours Of Testies
57	**Benine Biliary Diseases**
58	Malignent Biliary Disease
59	Congenital Heart Disease
60	Valvular Heart Disease
61	Pancreatic Endocrine Tumours

62	Liver Abscess – Pyogenic And Amoebic
63	Anal Fissure, Fistula & Hemorrhoids
64	Peri Anal Abscess
65	Soft Tissue Sarcoma

CLINICAL POSTINGS

Subject	Phase – II	Phase – III, Part – I	Phase – III, Part – II	Total Weeks
General Surgery	6 Weeks	5 Weeks	13 Weeks	24 Weeks

ASSESSMENT

- 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.
- 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.
- The log book shall also include records of outpatients assigned. Submission of the log book/case record to the department is required for eligibility to appear for the final examination of the subject. An **e-logbook is desirable**.

I. Eligibility to Appear for Professional Examinations

The performance in essential components of training is to be assessed, based on the following three components:

a) **Attendance**

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

b) **Internal Assessment (IA)**

1. IA shall be based on day-to-day assessment. For subjects taught in more than one phase, IA will be conducted in each phase.
2. It shall include various learner activities: assignments, seminar preparation, clinical case presentation, clinical case discussions, problem-solving exercises, community health projects, quiz, competency certifications, museum study, log books, SDL skills, etc.
3. IA should include both **subjective and objective assessments**.
4. **IA shall not be added to summative assessment**, but **IA marks (absolute)** must be **displayed under a separate column** in the detailed marks card.
5. **General Surgery IA** (theory and practical each):
    - **Total: 200 marks**
    - **Phase II –** 25 marks
    - **Phase III Part 1 –** 25 marks
    - **Phase III Part 2 –** 150 marks, subdivided as:
        - General Surgery – 75 marks
        - Orthopedics – 50 marks
        - Anesthesia – 13 marks
        - Radio diagnosis – 12 marks

c) **Certifiable Competencies Achieved**

1. Learners must complete required **certifiable competencies** and log book for the relevant phase to be eligible for the final university examination.
2. Regular internal assessments must be conducted:
3. **Phase I & II**: Minimum 3 theory and practical IA exams (including pre-university exam).
4. **Phase III Part 1 & 2**: Minimum 2 theory and clinical exams (including end-of-posting assessment).
5. Log book (including required skill certifications) will contribute **10–20% of IA marks**.
6. Learners must secure **at least 50% overall** (combined theory + practical), with a **minimum of 40% in each** component to be eligible for university exam.
7. IA results must be **intimated to students every 3 months** or **on demand**.

Remedial Measures

During the Course

1. If IA, attendance, or certifiable competencies are deficient:
   - Notify students and parents well before the university exam.
   - Provide **planned remedial measures** (teaching/tests).
   - Document completion of remedial measures.
   - If criteria are still unmet, student may attempt **supplementary exam** of the same batch.
   - **Attendance below 60%** in any component is **not eligible** for remedial measures.

At the End of Phase

1. If deficits persist at the end of regular classes:
   - The student is **detained** from appearing in the regular university exam.
   - Remedial classes may be planned for those with genuine absence.
   - Students with **<75% theory** or **<80% practical attendance**:
     - **Cannot appear for the university exam.**
     - May appear for the **supplementary exam**, **only if attendance ≥60%** and **remedial classes are completed** between the regular and supplementary exams.

2. **University Examinations**

Must assess knowledge, skills, ethics, professionalism, and fundamental concepts.

a) Theory Questions:

i. Structured types:

- **Long Answer Questions (LAQ)**
- **Short Answer Questions (SAQ)**
- **MCQs –** At least **20% of total marks**

ii. **Scenario-based MCQs** preferred for NEXT readiness.

iii. **Blueprinting** recommended.

b) Practical/Clinical Examinations:

- Conducted in labs or hospital wards using a blueprint.
- Assess skills, interpretation, logical thinking.
- Clinical cases should be **common conditions**, not rare syndromes.
- Assess history-taking, physical signs, case writing, analysis, and management planning

c) Viva/Oral Exam:

- Must evaluate patient management, emergency handling, ethics, and interpretation of data (X-ray, specimen's operative surgery etc.).

d) CBME Components:

- Application-based questions on foundation course, ECE, AETCOM, integration, and student-learning methods must be included in all theory, practical, and clinical exams (both IA and university level).

Marks Distribution – University Annual Examinations

Phase of Course	Theory	Practical's	Passing Criteria
Phase – III MBBS Part 2	Paper 1 – 100 marks Paper 2 – 100 marks	100 marks	Must Score **minimum 40% separately** in theory and practicals, and **combined 50%** to pass. Paper 2 distribution: **General Surgery – 40%, Orthopedics – 40%, Anesthesia – 10%, Radio diagnosis – 10%** Any further updates as per NEXT regulations

Format for Theory Paper

1. **MCQs –** 20 marks
2. **Long Essay –** 2 questions × 10 marks each
3. **Short Essay –** 6 questions × 5 marks each
4. **Short Answers –** 10 questions × 3 marks each

Internal Assessment Plan – General Surgery

A structured and transparent **internal assessment** framework will be implemented, covering theory and clinical performance.

Component	Details
Frequency	Three term exams (First, Second, and Prelims)
Theory IA	Based on MCQs, SAQs, and structured short answers following CBME pattern
Clinical IA	Includes long and short cases, procedural OSCEs, and viva voce
OSCE/OSPE	Objective Structured Clinical/Practical Examination will be conducted at least once a year in Skills Lab and OT-based settings
Documentation	IA marks to be recorded in the logbook and internal tracking system
Minimum Eligibility	≥ 50% in theory and practical IA required to appear for university exam, as per NMC norms
Remediation	Targeted sessions and reassessments for students scoring below threshold in IA
Feedback	Regular formative feedback after each exam and patient encounter, including mentor review meetings

All assessments will align with the CBME guidelines and promote continuous learning, reflection, and professionalism.

Clinical Teaching Format

Clinical teaching in General Surgery is structured to promote **active, experiential, and patient-centered learning**. The format integrates core CBME principles including skill acquisition, clinical reasoning, professionalism, and patient safety. All units across the department will uniformly adopt the following teaching-learning methodologies:

1. **Ward Rounds**
   - **Daily bedside rounds** under unit faculty and residents.
   - Emphasis on **clinical case presentation**, eliciting signs, problem listing, differential diagnosis, and management planning.
   - Active participation of students in **progress monitoring**, drug charting, and discharge summaries.
   - Regular teaching on **case-based ethics**, consent, infection control, and communication with patients/families.

2. **OPD Postings**
   - Students rotate in **Outpatient Departments (OPD)** observing and participating in history-taking, examination, and patient counseling.
   - Exposure to **common surgical disorders**, minor procedures, dressings, and pre-operative evaluation.
   - Focus on developing **clinical judgment**, communication, and empathy.

3. **OT (Operation Theatre) Observation**
   - Scheduled **OT days per unit** for students to observe elective and emergency surgical procedures.
   - Orientation on **operation theatre protocol**, sterilization, patient positioning, and surgical team dynamics.
   - Observation of **consent process**, anesthesia preparation, intraoperative decision-making, and surgical techniques.
   - Reinforcement of **surgical ethics**, safety, and patient rights in practice.

4. **Grand Rounds & Case Presentations**
   - Weekly grand rounds involving **all faculty and units** for discussion of interesting or complex cases.
   - Case presentations by **students/postgraduates** followed by group discussion and evidence-based reviews.

- Interdepartmental collaboration encouraged (e.g., pathology, radiology, anesthesia).
- Fosters **clinical correlation**, team-based learning, and presentation skills.

5. Skill Laboratory Sessions

- Regular structured sessions in the **Clinical Skills Lab** with hands-on practice.
- Topics include:
    - **Basic surgical skills** (suturing, knotting, instrument handling)
    - **Emergency procedures** (airway management, IV access, catheterization)
    - **ATLS principles** and trauma simulation
    - **OSCE-based teaching and assessments**
- Supervised by trained faculty with **checklists and feedback**.
- Skills to be logged and certified as per **NMC-mandated certifiable competencies**.

6. Integration with AETCOM & Early Clinical Exposure

- Ethics and communication training integrated into **clinical scenarios** during ward and OPD postings.
- Students encouraged to reflect on **real-life ethical dilemmas**, team roles, and patient autonomy.

7. Use of Technology & E-Learning

- Case discussions and clinical teaching may incorporate **digital resources**, surgical videos, 3D models, and virtual cases (if available).
- Encouragement for use of **online logbooks, learning portfolios**, and reflective journaling.

AETCOM Modules – Integration into Surgical Curriculum

Surgery-specific AETCOM modules have been identified, reviewed, and integrated into the Phase III (Final MBBS – Part I) curriculum as per NMC guidelines. The focus will be on building ethical reasoning, professionalism, and legal awareness among surgical trainees.

Integrated Modules (Final MBBS – Surgery postings):

Module	Title	Competency Addressed	Relevance to Surgery	Integration Mode
4.3	Case Studies in Medico-Legal and Ethical Situations	The student should be able to identify and discuss medico-legal, socio-economic and ethical issues as it pertains to organ donation	Addresses dilemmas in organ transplantation, donor consent, and Human Organ Transplant Act	Integrated via patient case discussions, ethics rounds, and seminars
4.6	Ethics and the Doctor–Industry Relationship	The student should be able to identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts	Critical in surgical practice, especially regarding fee-splitting, medical devices, pharma reps	Case-based discussions and group reflections during clinical postings

Learning Hours Allocation (per module):

- Introduction of Case: 1 hour
- Self-Directed Learning: 2 hours
- Anchoring Lecture: 1 hour
- Group Discussion & Closure: 1 hour
- **Total Hours per Module**: 5 hours

Assessment Methods:

I. **Formative**: Participation in discussions, reflective writing, observation in group sessions

II. **Summative**: Short-answer questions in theory exams on:

- Fee splitting and ethical issues in care delivery
- Professional conflict of interest in doctor–industry relationships
- Legal framework of organ transplantation in India (e.g., Human Organ Transplant Act)

Documentation:

Each student's participation and reflections will be logged in the AETCOM section of the Surgical Logbook and reviewed during internal assessments.

AETCOM Competencies for IMG

Module 4.3: Case Studies in Medico-Legal and Ethical Situations

Background

This module discusses the medico-legal and ethical conflicts in organ transplantation (also see module 2.5).

Competency Addressed

The student should be able to:	Level
Identify and discuss medico-legal, socio-economic and ethical issues as it pertains KH to organ donation	SH

Learning Experience

Year of study: Professional year 4

Hours: 5

i. Introduction of case - 1 hour
ii. Self-directed learning - 2 hours
iii. Anchoring lecture - 1 hour
iv. Discussion and closure of case - 1 hour

Case: The Angry Brick Kiln Owner

68 year old Muthukumar is your patient for the past 8 years. You are his family doctor and he seldom does anything without consulting you first. A self-made man with no formal education he is a successful brick kiln owner in the suburbs of the city. He has hypertension and diabetes even before the time he has been under your care. Today he enters your office distraught and angry and unable to speak. You calm him down...

Muthukumar is a known diabetic and hypertensive for the past 23 years and has been on multiple medications in the past. Six years ago, he was diagnosed with chronic renal failure. For the past one year, his renal function has been worsening. The nephrologist that you had recommended had suggested dialysis and he has been on hemodialysis thrice a week for the past 6 months. At the last visit, he was suggested renal transplantation.

Muthukumar Continues:

“I saw that kidney doctor today, Doctor. He said that I can get a new kidney instead of my old one. He told me that I need someone to donate a kidney to me. I told him that I don’t need anyone’s charity and I can buy one donor. That doctor laughed at me, sir –he told me that I

cannot buy any kidney and that one of my relatives must donate it to me – He even said that my younger brother is probably the best person to donate the kidney. How dare he, Sir – my younger brother who is dearer to me than a son. I have so many employees in my factory who will line up to give me a kidney. Why is this doctor talking like this?"

Points for Discussion

1. Can a kidney be bought?
2. What are the health economic outcomes of selling a kidney?
3. What are the medico-legal and ethical implications of the Human Organ Transplantation Act?

Module 4.6: Case Studies in Ethics and the Doctor–Industry Relationship

Background

This module discusses some nuances in the professional relationships and conflicts there of (also see module 2.5).

Competency Addressed

The student should be able to:	Level
Identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts	SH

Learning Experience

Year of study: Professional year 4

Hours: 5

i. Introduction of case - 1 hour
ii. Self-directed learning - 2 hours
iii. Anchoring lecture - 1 hour
iv. Discussion and closure of case - 1 hour

Case: The Offer

You get a call from the secretary of the promoter of the largest and most successful corporate hospital in the city asking for an appointment for you with him. You are perplexed but make it to the appointment. You enter a large well-appointed room. The owner of the hospital gets up from his chair, welcomes you and asks you to sit down.

"Welcome to our hospital, doctor". After a few minutes of empty banter, he says – "My marketing executives tell me that you are the most successful practitioner in this area, As you

know, we are a growing organization; we are eager to partner with you. Doctor, I know that you use the services of another hospital here but we can make it worth your while to consider".

You look enquiringly. He continues. "In addition to your professional charges that you can determine, we can provide you with 20% of the hospital's collections from your patient including radiology and laboratory charges. If you send us your outpatients for consultations, laboratory or radiology we will give you back 30% of our collections. We hope that you will consider this, doctor and become part of our extended family."

Points for Discussion

1. Fee splitting and other practices.
2. Can doctors become entrepreneurs?
3. Can doctors own pharmacies or hold stock in pharmaceutical companies?
4. What comprises professional conflict of interest?

Assessment

1. **Formative:**
   The student may be assessed based on their active participation in the sessions.

2. **Summative:**
   Short questions on:
   - Fee splitting and its implications for patient care
   - Conflicts in professional relationships

Certifiable Skills in General Surgery (MBBS – CBME)

(To be documented in the logbook for certification by the unit head or skill lab in-charge)

Sl. No.	Skill / Procedure	Competency Code	Min. Required	Certification Level	Date Completed	Faculty Signature
1	Perform surgical hand washing (scrubbing, gowning, gloving)	SU 1.6	3	SH		
2	Prepare OT table and surgical trolley	SU 1.5	2	SH		
3	Knot tying (instrument and hand)	SU 1.9	5 (each)	SH		
4	Take informed consent for surgery	SU 1.10	3	SH		
5	Administer local anesthesia	SU 2.1	2	SH		
6	Incision and drainage of abscess	SU 2.2	2	SH		
7	Suture small wound (simple interrupted)	SU 2.4	3	SH		
8	Remove sutures or staples	SU 2.5	2	SH		
9	Perform wound dressing	SU 2.3	3	SH		
10	Pre-operative preparation	SU 1.3	2	SH		
11	Post-operative care (drains, fluids, ambulation)	SU 1.4	2	SH		
12	Maintain case records in surgery	SU 1.1	Ongoing	SH		
13	Interpret surgical X-ray/USG/CT	SU 4.3	3	SH		
14	Observe laparoscopic procedures	SU 3.3	1	O		
15	Bladder catheterization	SU 5.2	2	SH		
16	Nasogastric tube insertion	SU 5.1	2	SH		
17	Identify and manage SSI	SU 2.6	2	SH		
18	Observe common surgeries (hernia, appendix, etc.)	SU 6.1 – SU 10.3	5 (min)	O/A		
19	Basic Life Support (BLS)	SU 12.1	As per BLS module	SH		
20	Biomedical waste management	IM 1.8	1	SH		

4. Integrated Teaching Programs – Phase Wise

Phase	Topic	Integrated Departments	Remarks
Phase III (Part 1)	Premalignant Lesions of Oral Cavity SU20.1 / Management of Oral Cavity Malignancies SU20.2 / Hyper Thyroidism SU22.2 / HIV and Surgeon SU6.1	Radiology, Pathology, Oncology	Clinical Integration
Phase III (Part 2)	Acid Peptic Disease, Obstructive Jaundice , Diabetic Foot	Medicine, Pathology, Anatomy, Physiology, Radiology	Team-Based Learning

Internal Assessment Details

A structured internal assessment framework has been incorporated into the curriculum to ensure continuous and comprehensive evaluation of students throughout their clinical training.

Phase/Term	Assessment Type	Component	Frequency	Remarks
Phase III, Part – II	Formative	Theory + Clinical	Twice	1st & 2nd Internal Assessment (IA) Tests
Phase III, Part – II	Summative	Theory + Clinical	Once	Prelim Exam
Ongoing	Continuous Assessment	Logbook, Skill Lab	Weekly	Reflective record keeping
During Clinical Postings	Formative & Summative	Ward Leaving Test (WLT)	At the end of every posting	Conducted for every student at the conclusion of each clinical posting
Batch-wise (once only)	Clinical Skills Assessment	OSCE	Once (per batch)	OSCE conducted once during clinical posting period

Assessment Modalities

I. **Theory**:

- Multiple Choice Questions (MCQs)
- Short Answer Questions (SAQs)
- Long Answer Questions (LAQs)

II. **Clinical**:

- Objective Structured Clinical Examination (OSCE) – conducted once per batch
- Mini Clinical Evaluation Exercise (Mini-CEX)
- Case-Based Discussions (CBD)
- Ward Leaving Test (WLT) – conducted at the end of every clinical posting

III. **Final Internal Assessment Marks**:

- Calculated as the **average of all theory and clinical assessments**
- An **additional 10% weightage** is added for **attendance, logbook maintenance, and professionalism**

Note on Clinical Clerkship

"The existing case presentation record books, duly signed and maintained by students during clinical rotations, will serve as valid documentation for clinical clerkship. Acknowledgment of these entries will be considered part of the internal assessment."

Recommended Resources for Undergraduate General Surgery (CBME Curriculum – 2024)

1. **Standard Textbooks**

Title	Author(s)	Edition / Publisher
A Concise Textbook of Surgery	S. Das	Latest edition
SRB's Manual of Surgery	Sriram Bhat M.	Latest edition
Bailey & Love's Short Practice of Surgery	Norman Williams, P. Ronan O'Connell, Andrew McCaskie	28th Edition, CRC Press
Sabiston Textbook of Surgery	Courtney M. Townsend Jr.	21st Edition, Elsevier
Schwartz's Principles of Surgery	F. Charles Brunicardi et al.	11th Edition, McGraw-Hill

2. **Operative Surgery References**

Title	Author(s)	Edition / Publisher
Fundamentals of Operative Surgery	Anil K. D'cruz	Latest edition
General Surgery: Principles and International Practice	A. R. Moossa, Michael W. Mulholland	Springer
Operative Surgery Manual	MSRMC or AIIMS publication (for skill-based teaching aids)	Institutional editions (as available)

3. **Clinical Manuals / Case-Based Learning**

Title	Author(s)	Edition / Publisher
Clinical Surgery Pearls	Sriram Bhat M.	2nd Edition
Clinical Cases and OSCEs in Surgery	Manoj Ramachandran, Marc A Gladman	Latest edition
Short Cases in Surgery	Baily & Love Companion or S. Das	Latest edition

4. **Instruments & Skills Guidebooks**

Title	Author(s)	Edition / Publisher
Surgical Instruments and Procedures Manual	SM Tuli / Institutional modules	Custom guides
Clinical Skills for OSCEs in Surgery	Neel Sharma or Local Skill Lab Manuals	Latest edition
NMC / AIIMS Surgical Skills Handbook	National Medical Commission / Institutional	Updated module editions

BLDE (DEEMED TO BE UNIVERSITY)

SHRI B M PATIL MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTRE, VIJAYAPURA, KARNATAKA

COMPETENCY BASED MEDICAL EDUCATION (CBME)

MBBS

LOG BOOK OF SURGERY

(as per GMR 2024)

Name of the Student: _____

Roll No: _____

University Registration No: _____

BLDE (DEEMED TO BE UNIVERSITY)

SHRI B M PATIL MEDICAL COLLEGE HOSPITAL AND

RESEARCH CENTRE, VIJAYAPURA, KARNATAKA

LOGBOOK CERTIFICATE

This is to certify that the candidate Ms/Mr ……

Roll No. ……. Registration no. ……. admitted in the year ……..in has undergone 20 weeks of training in General Surgery and has satisfactorily completed / has not completed all assignments & requirements mentioned in this logbook for the MBBS course in the subject of General Surgery during the period from……to…… .

She / He is / is not eligible to appear for the summative (University) assessment as on the date given below.

Signature with date

HEAD,

DEPARTMENT OF GENERAL SURGERY

BIODATA of the Student

Name of the student :

Date of birth :

Mobile number :

e-mail ID :

Permanent address :

Signature of the student……

GENERAL INSTRUCTIONS

1. Completion of the activities specified and submission of the certified logbook is a prerequisite for a student to apply for the end of phase summative examination.
2. The logbook is a record of the academic /co-curricular activities of the student, who would be responsible for maintaining his/her logbook. It should be maintained from beginning of phase 2 and completed by Phase 3 part2
3. The student is responsible for getting the entries in the logbook verified by the Faculty incharge regularly.
4. Entries in the logbook will reflect the activities undertaken in the department and have to be scrutinized by the Head of the concerned department.
5. 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
6. The logbook is the record of work done by the candidate in that department /specialty andshould be verified by the college before submitting the application of the students for the University examination.
7. Students shall also write reflections on the topics learnt in relevant sections of log book. Reflections should be structured using the following guiding questions
    a. What happened? (What did you learn from the experience?)
    b. So what? (What are the applications of the learning?)
    c. What next? (How would you apply these knowledge and skills?)

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KEY

Colours

Must Know – 

Desirable to know – 

Good to know - 

Decision by faculty

Completed - C

Repeat – R

Remedial- Re

Rating

Below expectations – B

Meets expectations – M

Exceeds expectations - E

COMPETENCY ASSESSMENT

Clinical posting – Phase II **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
		History taking	**Yes/No**	**Yes/No/NA**
	S.U.18	History and Examination of a case of swelling	**Yes/No**	**Yes/No/NA**
	S.U. 5.2	History and Examination of a case of ulcer	**Yes/No**	**Yes/No/NA**
	S.U. 22.3	History and Examination of a case of thyroid	**Yes/No**	**Yes/No/NA**
	S.U. 25	History and Examination of a case of Breast Lump	**Yes/No**	**Yes/No/NA**
	S.U. 28	History and Examination of a case of Abdominal Lump	**Yes/No**	**Yes/No/NA**
	S.U. 24 S.U.28.3 S.U.28.4	History and Examination of a case of Abdominal pain	**Yes/No**	**Yes/No/NA**

	S.U.27.2	History and Examination of a case of POVD	**Yes/No**	**Yes/No/NA**
	S.U. 27.6	History and Examination of a case of Varicose vein	**Yes/No**	**Yes/No/NA**
	S.U. 20	History and Examination of a case of oral ulcer	**Yes/No**	**Yes/No/NA**
	S.U. 21	History and Examination of a case of salivary gland	**Yes/No**	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	
DATE	**COMPETENCY No:**	**COMPETENCY**	**Whether achieved ornot**	**If not achieved remedial measuresgiven**
	S.U.28.1 S.U.28.2	History and Examination of a case of hernia,	**Yes/No**	**Yes/No/NA**
	S.U.30.5 S.U. 30.6	History and Examination of a case of Scrotal swellings	**Yes/No**	**Yes/No/NA**
	S.U.27.8	History and Examination of a case of Lymphatic system	**Yes/No**	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**

			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

COMPETENCY ASSESSMENT

Clinical posting – Phase III Part 1 **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U. 9 S.U. 18.3	DDs and approach in investigating a case of swelling	**Yes/No**	**Yes/No/NA**
	S.U. 5.2 S.U. 9	DDs and approach in investigating a case of ulcer	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 22.3	DDs and approach in investigating a case of thyroid diseases	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 25	DDs and approach in investigating a case of Breast Lump	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.28.4	DDs and approach in investigating a case of Abdominal Lump	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.28.6	DDs and approach in investigating a case ofAbdominal pain	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.27.2	DDs and approach in investigating a case ofPOVD	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.27.6	DDs and approach in investigating a case ofVaricose vein	**Yes/No**	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U. 9 S.U. 20	DDs and approach in investigating a case oforal ulcer	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 21	DDs and approach in investigating a case of salivary gland disease	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.28.1	DDs and approach in investigating a case ofhernia	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 30	DDs and approach in investigating a case ofscrotal swelling	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.27.7	DDs and approach in investigating a case of Lymphadenopathy	**Yes/No**	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

COMPETENCY ASSESSMENT

Clinical posting – Phase III Part 2 **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U. 9 S.U.18	DDs and approach in management of a case of swelling	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 27.6	DDs and approach in management of a case of ulcer – Venous	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.27.3	DDs and approach in management of a case of ulcer- Arterial	**Yes/No**	**Yes/No/NA**
	S.U. 9 I.M. 13 .8	DDs and approach in management of a case of ulcer – Malignant	**Yes/No**	**Yes/No/NA**
	S.U. 9 SU22.3	DDs and approach in management of a case of thyroid disease – MNG	**Yes/No**	**Yes/No/NA**
	S.U. 9 SU22.3	DDs and approach in management of a case of thyroid disease – SNT	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 22.3	DDs and approach in management of a case of thyroid disease - Toxic thyroid	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 22.3	DDs and approach in management of a case of thyroid disease - Malignant thyroid swelling	**Yes/No**	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U. 9 S.U. 25	DDs and approach in management of a case of Breast Lump – Benign	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 25	DDs and approach in management of a case of Breast Lump – Malignant	**Yes/No**	**Yes/No/NA**
	S.U. 9 SU28.10 SU28.12	DDs and approach in management of a case of Abdominal Lump- Right hypochondrium lump	**Yes/No**	**Yes/No/NA**
	S.U. 9 SU24 S.U.28.4 S.U.28.9	DDs and approach in management of a case of Abdominal Lump- Epigastric lump	**Yes/No**	**Yes/No/NA**
	S.U. 9 SU28.10	DDs and approach in management of a case of Abdominal Lump- Left hypochondrium lump	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 23.2 S.U. 29.6	DDs and approach in management of a case of Abdominal Lump- Lumbar lump	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.28.4	DDs and approach in management of a case of Abdominal Lump- Umbilical lump	**Yes/No**	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U. 9 S.U.28.4 SU28.13	DDs and approach in management of a case of Abdominal Lump- Right iliac fossa mass	**Yes/No**	**Yes/No/NA**
	S.U. 9 SU28.13	DDs and approach in management of a case of Abdominal Lump- Left iliac fossa mass	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.28.4	DDs and approach in management of a case of Abdominal Lump- Pelvic mass	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.28.6	DDs and approach in management of a case of Abdominal pain- Acute	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 24	DDs and approach in management of a case of Abdominal pain- Chronic	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.27.2	DDs and approach in management of a case of POVD	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.27.6	DDs and approach in management of a case of Varicose vein	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 20	DDs and approach in management of a case oforal ulcer	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.27.7	DDs and approach in management of a case of Lymphadenopathy	**Yes/No**	**Yes/No/NA**

	S.U. 9 S.U. 24 SU28.12	DDs and approach in management of a case of obstructive jaundice	**Yes/No**	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	
DATE	**COMPETENCY No:**	**COMPETENCY**	**Whether achieved ornot**	**If not achieved remedial measuresgiven**
	S.U. 9 S.U. 21	DDs and approach in management of acase of salivary gland pathology	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U.28.1	DDs and approach in management of acase of hernia – Inguinal	**Yes/No**	**Yes/No/NA**
	S.U.9 S.U.28.1	DDs and approach in management of acase of hernia – Femoral	**Yes/No**	**Yes/No/NA**
	S.U.9 S.U.28.1	DDs and approach in management of acase of hernia – Epigastric	**Yes/No**	**Yes/No/NA**
	S.U.9 S.U.28.1	DDs and approach in management of acase of hernia – Umbilical	**Yes/No**	**Yes/No/NA**
	S.U.9 S.U.28.1	DDs and approach in management of acase of hernia – Incisional	**Yes/No**	**Yes/No/NA**
	S.U. 9 SU30.5 SU30.6	DDs and approach in management of acase of scrotal swelling	**Yes/No**	**Yes/No/NA**

	S.U. 9 S.U.27.7	DDs and approach in management of a case of Lymphadenopathy	**Yes/No**	**Yes/No/NA**
	S.U. 9 S.U. 24 SU28.12	DDs and approach in management of a case of obstructive jaundice	**Yes/No**	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
SIGNATURE of Unit Chief			SIGNATURE of Faculty	

Seminar / Tutorial topics/ small group discussions – Phase II **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U. 15	Biohazard disposal	**Yes/No**	**Yes/No/NA**
	S.U. 5	Wound healing and wound care	**Yes/No**	**Yes/No/NA**
	S.U. 6	Surgical infections	**Yes/No**	**Yes/No/NA**
	S.U.7	Surgical Audit and Research	**Yes/No**	**Yes/No/NA**
	S.U. 8	Ethics	**Yes/No**	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

REFLECTION ON SMALL GROUP DISCUSSION

Sl. No.	Topic	Date

Signature of Unit Chief **Signature of Faculty**

Sl. No.	Topic	Date

Signature of Unit Chief **Signature of Faculty**

Seminar / Tutorial topics/ small group discussions – Phase III **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved or not	If not achieved remedial measures given
	S.U.28.6	Management of upper GI bleed	**Yes/No**	**Yes/No/NA**
	S.U.28.14	Management of lower GI bleed	**Yes/No**	**Yes/No/NA**
	S.U.28.3	Head injury	**Yes/No**	**Yes/No/NA**
	S.U.28.15	Management of RIF pain and evaluation	**Yes/No**	**Yes/No/NA**
	S.U.27.2	Management of acute limb ischemia	**Yes/No**	**Yes/No/NA**
	S.U.29.5	Management of ureteric colic and acute urinary retention	**Yes/No**	**Yes/No/NA**
	S.U.29.7	Abdominal injury – liver , spleen , kidney, pancreas	**Yes/No**	**Yes/No/NA**
	S.U.27.6	Extremity trauma Management of deep vein thrombosis, gas gangrene, compartment syndrome	**Yes/No**	**Yes/No/NA**

	S.U.28.13	Crush syndrome	**Yes/No**	**Yes/No/NA**
	S.U.28.14	Intesinal obstruction	**Yes/No**	**Yes/No/NA**
	S.U.4S.U	Burns –burns assessment , management , piv access , fluid management		
	30.3	Treatment of burn wound		
	OR-1	Frost bite and non-thermal burns		
	S.U.28.3	Amputation and revascularization		
	S.U.28.10	Management of acute peritonitis		
	S.U.24.1	Segmental anatomy of liver Management of acute pancreatitis		
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

Seminar / Tutorial topics/ small group discussions- Phase III Part 1 **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

Seminar / Tutorial topics/ small group discussions- Phase III Part 1

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

REFLECTION ON SMALL GROUP DISCUSSION

Sl. No.	Topic	Date

Signature of Unit Chief **Signature of Faculty**

Sl. No.	Topic	Date

Signature of Unit Chief **Signature of Faculty**

Seminar / Tutorial topics/ small group discussions – Phase III Part 2 **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U.11.5	Enumerate the indications and principles of day case and fast track Surgery	**Yes/No**	**Yes/No/NA**
	S.U.11.7	Describe Principles ofsafe General Surgery	**Yes/No**	**Yes/No/NA**
	S.U.11.9	Fever in postoperativepatient	**Yes/No**	**Yes/No/NA**
	S.U.12.1	Enumerate the causes and consequences of malnutrition in thesurgical patient	**Yes/No**	**Yes/No/NA**
	S.U.12.2	Describe and discuss the methods of estimation andreplacement of the fluid and electrolyte requirements in thesurgical patient	**Yes/No**	**Yes/No/NA**
	S.U.12.3	Discuss the nutritional requirements of surgical patients, themethods of	**Yes/No**	**Yes/No/NA**

		providingnutritional support and their complications		
	S.U. 13	Transplantation	**Yes/No**	**Yes/No/NA**
	S.U. 19	Developmental anomalies of face, mouth and jaws	**Yes/No**	**Yes/No/NA**
	S.U. 23	Adrenal tumors	**Yes/No**	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

Seminar / Tutorial topics/ small group discussions – Phase III Part 2 **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U. 26.1	Outline the role ofsurgery in the management of coronary heart disease, valvular heart diseases and congenital heartdiseases	**Yes/No**	**Yes/No/NA**
	S.U. 26.3	Describe the clinical features of mediastinal diseases and the principles of management	**Yes/No**	**Yes/No/NA**
	S.U. 26.4	Describe the etiology, pathogenesis, clinical features of tumors of Lung and the principles of management	**Yes/No**	**Yes/No/NA**
	S.U. 24	Clinical features and management of pancreatic endocrinetumours	**Yes/No**	**Yes/No/NA**
		Hydrocephalus, Braintumors	**Yes/No**	**Yes/No/NA**
	S.U. 9.2	MEN - MultipleEndocrine Neoplasia	**Yes/No**	**Yes/No/NA**
	S.U. 28.6	Esophagus	**Yes/No**	**Yes/No/NA**
	S.U. 27.7 S.U. 28	GIST, GastricLymphoma, Gastricvolvulus	**Yes/No**	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

REFLECTION ON SMALL GROUP DISCUSSION

Sl. No.	Topic	Date

Signature of Unit Chief **Signature of Faculty**

Sl. No.	Topic	Date

Signature of Unit Chief **Signature of Faculty**

Bed side clinic, DOAP session – Phase II **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved or not	If not achieved remedial measuresgiven
	S.U. 3.2	Observe blood transfusions.	**Yes/No**	**Yes/No/NA**
	S.U. 3.4	Identification and management of blood transfusion reactions	**Yes/No**	**Yes/No/NA**
	S.U. 8.2	Demonstrate Professionalism and empathy tothe patient undergoing General Surgery	**Yes/No**	**Yes/No/NA**
	S.U. 10.2	Describe the steps and obtain informed consent in a simulated environment	**Yes/No**	**Yes/No/NA**
	S.U. 25.4	Counsel the patient and obtain informed consent for treatment of malignant conditionsof the breast	**Yes/No**	**Yes/No/NA**
	S.U. 25.5	Demonstrate the correct technique to palpatethe breast for breast swelling in a mannequin or equivalent	**Yes/No**	**Yes/No/NA**

	S.U. 27.2	Demonstrate the correct examination of thevascular system	**Yes/No**	**Yes/No/NA**
	S.U. 28.18	Describe and demonstrate clinical examination of abdomen. Show the techniques of examination of various abdominal organs correlating with history.	**Yes/No**	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

Bed side clinic, DOAP session- Phase III-Part 1 **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U. 2.3	Communicate and counsel patients andfamilies about the treatment and prognosis ofshock demonstrating empathy and care.	**Yes/No**	**Yes/No/NA**
	S.U. 3.3	Counsel patients and family/ friends for blood transfusion and blood donation.	**Yes/No**	**Yes/No/NA**
	S.U. 9.3	Communicate the results of surgical investigations and counsel the patient appropriately	**Yes/No**	**Yes/No/NA**
	S.U. 10.3	Observe common surgical procedures and assist in minor surgical procedures;	**Yes/No**	**Yes/No/NA**
	S.U.10.3	Observe emergency life save in surgical procedures	**Yes/No**	**Yes/No/NA**
	S.U. 14.4	Demonstrate the techniques of asepsis and suturing in a simulated environment	**Yes/No**	**Yes/No/NA**

	S.U. 28.18	Describe and demonstrate clinical examination of abdomen. Show thetechniques of examination of various abdominal organs correlating with history.Order relevant investigations. Describe and discuss appropriate treatment plan	**Yes/No**	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

Bed side clinic, DOAP session- Phase III-Part 2 **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U. 11.2	Documentation – Pre op orders, post op orders, clinical/ procedural notes, progress notes, consent, refusal of treatment, interdepartmental consultations	**Yes/No**	**Yes/No/NA**
	S.U. 11.8	Basics of mechanical ventilation and criticalcare in postoperative patient	**Yes/No**	**Yes/No/NA**
	S.U. 16.1	Minimally invasive General Surgery	**Yes/No**	**Yes/No/NA**
	S.U. 27.2	Enumerate and describe the investigation ofvascular disease	**Yes/No**	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

Skills lab- Phase II **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U.10.4 S.U. 17.1	Principles of first aid	**Yes/No**	**Yes/No/NA**
	S.U.10.4 S.U. 17.2	BLS / transportation	**Yes/No**	**Yes/No/NA**
	S.U. 11.4 S.U. 17.10	Demonstrate maintenance of an airway in a mannequin or equivalent	**Yes/No**	**Yes/No/NA**
	S.U. 25.5	Demonstrate the correct technique to palpate the breast for breast swelling in a mannequin or equivalent	**Yes/No**	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

Skills lab– Phase III Part 1 **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved ornot	If not achieved remedial measuresgiven
	S.U. 10.4	Perform basic surgical Skills such as First aid including suturing and minor surgicalprocedures in simulated environment	**Yes/No**	**Yes/No/NA**
	S.U.10.4 S.U. 17.10	ICD TUBE insertion	**Yes/No**	**Yes/No/NA**
	S.U.10.4	Vensection	**Yes/No**	**Yes/No/NA**
	S.U.10.4 S.U.17.10	Flail chest management	**Yes/No**	**Yes/No/NA**
	S.U. 14	Basic surgical skills	**Yes/No**	**Yes/No/NA**
	S.U. 29.10	Demonstrate a digital rectal examination of the prostate in a mannequin or equivalent	**Yes/No**	**Yes/No/NA**
	S.U. 29.7	Urinary catheterization – Male	**Yes/No**	**Yes/No/NA**
	S.U. 29.7	Urinary catheterization – Female	**Yes/No**	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

Skills lab– Phase III Part 2 **From_____to _____**

DATE	COMPETENCY No:	COMPETENCY	Whether achieved or not	If not achieved remedial measuresgiven
	S.U. 12.3	Ryle's tube insertion	**Yes/No**	**Yes/No/NA**
	S.U. 17.10	Tracheostomy	**Yes/No**	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
			Yes/No	**Yes/No/NA**
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

INTEGRATION TOPICS

DATE	COMPETENCY No:	COMPETENCY	Whether achieved or not	If not achieved remedial measuresgiven
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
SIGNATURE of Unit Chief			SIGNATURE of Faculty	

DATE	COMPETENCY No:	COMPETENCY	Whether achieved or not	If not achieved remedial measuresgiven
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
SIGNATURE of Unit Chief			SIGNATURE of Faculty	

DATE	COMPETENCY No:	COMPETENCY	Whether achieved or not	If not achieved remedial measuresgiven
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
			Yes/No	Yes/No/NA
SIGNATURE of Unit Chief			**SIGNATURE of Faculty**	

Department of Orthopedics

A. Objectives

Knowledge

The student should be able to:

1. Explain the principles of management of bone injuries and dislocations and associated soft tissue injuries.
2. Apply suitable methods to detect and manage common infections of bones and joints;
3. Identify congenital, skeletal anomalies and their referral for appropriate correction or rehabilitation.
4. Recognize metabolic bone diseases.
5. Explain etiology, pathogenesis, manifestations, and diagnosis of tumours affecting bones.
6. Recognise and know basics of management of shock in polytrauma patients.
7. Identify common rheumatological and degenerative disorders of bone and joint
8. Identify peripheral nerve lesions and management

B. Skills

At the end of the course, the student shall be able to:

1. Detect common fractures and sprains and management of uncomplicated fractures of upper and lower limb
2. Demonstrate techniques of splinting, plaster, immobilization on simulated patients and mannequins
3. Resuscitation of polytrauma patients, triage and referral
4. Advise aspects of rehabilitation for polio, cerebral palsy and amputations.

C. Attitude/professionalism

1. Be able to perform basic orthopedic procedures in simulated environment, provide sound advice of skeletal and related conditions at primary or secondary health care level.

D. Communication

1. Casualty management of polytrauma, counselling and referral
2. Develop counselling skills.

INTEGRATED TEACHING (TOTAL 10 HOURS)

Sl. No	Topic	Collaborating Departments	Integration
1	Skeletal Trauma and Polytrauma Competency OR 1.1-1.6	General Surgery and Anaesthesia	Horizontal 1 hour
2	Anatomical Basis of Fractures Competency OR 2.1-2.16	Human Anatomy	Vertical Total 2 hrs
3	Musculoskeletal Infections Competency 3.1 Competency 3.3	Pathology Microbiology General Surgery	Vertical Horizontal Total 1 hour
4	Skeletal Tuberculosis Competency 4.1 Competency 4.2	Pathology General Surgery	Vertical Horizontal Total 1 hour
5	Inflammatory Disorders and Rheumatoid Arthritis Competency 5.1	Medicine	Horizontal 1 hour
6	Bone Tumours Competency 10.1	Pathology and Radiology	Horizontal 1 hour
7	Peripheral Nerve Injuries Competency 11.1	General surgery General Medicine Anatomy	Horizontal Vertical Total 1 hour
8	Congenital lesions : Hip dislocation torticollis scoliosis of spine Competency 12.1	Human Anatomy and Paediatrics	Vertical 1 hour
9	Procedural Skill Learning in Simulated Environment	Anaesthesia General Surgery and General Medicine	Horizontal 1 hour

TIME TABLE PHASE WISE

Third professional year part 2 (8th and 9th term) total teaching hours = 50

Theory teaching hours	30
Small Group teaching	50
Self-directed learning	20

Clinical postings: total of 8 weeks

Phase 3 part 1 (5th and 6th term) = 2 weeks

Phase 3 part 2 (7th and 8th term) = 6 weeks

Internal Assessment will be for 50 marks out of 200 marks allotted for Surgery and allied subjects.

Course Contents

Traumatology:

1. **Injuries of Bone and joints:**
    - Fracture general types healing of fractures principles and management
    - Diagnosis and methods of reductions
    - Immobilization
    - Complications of fractures and management of open fractures
    - Pathological fractures.
    - Dislocations and subluxations - mechanism, clinical features and management.

I. Injuries of upper extremity:

- Injuries of shoulder, arm & forearm.
- Fracture clavicle, injuries of acromio clavicular joints.
  Fracture scapula, upper end of humerus.
- Dislocation of shoulder—acute and recurrent.
- Fracture shaft humerus.
- Fractures around the elbow, radius, ulna.
- Fracture scaphoid bone.
- Injuries of the hand: Fractures of metacarpals and phalanges.
- **Bennetts** fracture dislocation, Tendon injuries.
- POP slab application.

Must know: Clavicle fracture, Colles fracture, supracondylar fracture of humerus, anterior shoulder dislocation, posterior elbow dislocation, monteggia fracture, gallezzi fracture, nerve injuries-radial nerve, median nerve, ulnar nerve, brachial plexus, vascular injuries- brachial artery, radial artery.

Desirable to know: scapular fracture, proximal humerus fracture, humerus shaft fracture, fracture both bones forearm and scaphoid fracture.

II. Injuries of Lower Extremity:

- Dislocation of hip, Fracture neck of femur, trochanteric fracture,
- Fracture shaft femur. Injuries - of knee-
- Fracture tibia, fracture dislocation of ankle, fracture calcaneum.
- Traction and splints
- Below knee slab and above knee slab.

Must know: Dislocations of hip joint, fracture neck of femur, intertrochantric fracture of femur, patellar fractures, ankle fractures, nerve injuries- sciatic nerve, common peroneal nerve, vascular injuries- popliteal artery.

Desirable to know: Pelvic fractures, femur shaft and distal femur fractures, tibial plateau fractures, ligamentous injuries of knee joint.

III. Injuries of the Spine:

- Incidence-mechanism, types, clinical features of cord injury, traumatic Paraplegia, quadriplegia

Must Know: Whiplash injuries, traumatic paraplegia, and first aid treatment of spine injuries.

Desirable to know: Fractures and fracture dislocation of spine.

IV. Vascu lar Injuries:

- Types, sub fascial compression, Brachial artery injury, Popliteal artery injury, Tibial artery injury.

V. Amputations:

- General indications, levels, technique of above knee amputation, below knee stump, Syme`s amputation, upper limb amputation, prosthesis.

VI. Upper limb

Must know: Above elbow and below elbow amputations.

VII. Lower limb

Must know: Above knee and below knee amputations.

Desirable to know: Syme's amputation.

VIII. Prosthesis:

Must Know: SACH foot, Jaipur foot, Madras foot

Desirable to Know: Patellar tendon bearing **prosthesis**

COLD ORTHOPAEDICS:

1. **Deformities:** General, congenital, acquired, principles of management, splints, Club foot, Developmental dysplasia of hip, Congenital skeletal limb deficiencies,

Must Know: Congenital Talipes Equin Varus deformity (club foot), Developmental dysplasia of hip joint (DDH)

Desirable to Know: Congenital Limb deficiencies.

2. **Regional Conditions**
   - Neck: Torticollis, Inter vertebral disc prolapse, Cervical rib
   - Shoulder, elbow arthritis, painful arc syndrome, Tennis elbow,
   - Cubitus Varus –Valgus deformities.
   - Wrist and Hand: wrist drop, claw hand, ganglion, Dupytrens contracture, deQuervain's disease, trigger thumb, Carpal tunnel syndrome
   - Spine: Backache examination, Intervertebral disc prolapse, Spondylolisthesis
   - Hip: Clinical Examination, Perthe's disease
   - Knee: Genu valgum, varum, recurvatum, recurrent dislocation of Patella
   - Semi membranous Bursa.
   - Foot: Plantar Fascitis, Flat foot, Foot drop

Must Know: Torticollis, cervical rib, tennis elbow, painful arc syndrome, cubitus varus, ganglion, dupytren's contracture, de quervain's disease, carpal tunnel syndrome, genu valgum, genu varum, foot drop, plantar fascitis, claw hand, **Baker'cyst , Osteoarthritis of knee.**

Desirable to Know: Lumbar disc prolapse, frozen shoulder, wrist drop, trigger finger, back examination, spondylolisthesis, Perthes disease, recurrent dislocation of patella, bursae around knee joint, flat foot, **Rheumatoid arthritis , Spondyloarthropathies.**

3. **Neuromuscular Disorders**
    - Cerebral Palsy: Clinical features, management
    - Anterior Poliomyelitis: pathology; clinical features management, surgery.
    - Leprosy: pathology, Orthopedic problems - Claw hand, Foot drop - Wrist drop
    - Rehabilitation.

Must know: Claw hand, wrist drop, foot drop.
Desirable to know: Cerebral palsy, Poliomyelitis, Leprosy

4. **INFECTIONS:**

- Infections: Pyogenic osteomyelitis, acute, chronic, sub-acute & Brodie's abscess Mycotic infections, Syphilitic lesions.
- Disease of joints: Clinical examination, synovial fluid analysis, septic arthritis Rheumatic, Rheumatoid diseases, Haemophilic arthritis.
- Bone and Joint Tuberculosis: Aetiopathogenesis, clinical features, management. Tuberculosis of spine, Pott's paraplegia, uberculosis of hip knee and other joints

Must know: Acute and chronic osteomyelitis, Brodie 's abscess, septic arthritis of hip and knee joint, tuberculosis of hip joint, knee joint and spine(Pott 's spine), **Pott' paraplegia.**
Desirable to know: Mycotic infections, syphilitic infections.

5. **Metabolic Disorders:**

- Metabolic disorders: Rickets, Osteomalacia, Osteoporosis, Scurvy , Gout

Must Know: Rickets, osteomalacia, **Osteoporosis**
Desirable to know: Scurvy, gout

6. **Tumours:**

- Benign and malignant bone tumours
- Benign: Osteochondroma, Enchondroma
- Malignant: Osteosarcoma, Osteoclastoma, Ewing's tumour, Multiple myeloma, secondaries

Must Know: Osteochondroma, osteoclastoma, Osteosarcoma, secondary deposits in the bone
Desirable to know: Enchondroma, Ewings sarcoma, Multiple myeloma

7. **Physical Medicine & Rehabilitation:**

- Short wave diathermy, interferential therapy, wax bath, ultrasound therapy, lumbar and cervical traction, continuous passive motion.

Must Know: Short wave diathermy, wax bath, continuous passive motion.
Desirable to know: interferential therapy, ultrasound therapy, lumbar and cervical traction,

8. **Bio-Medical Waste:**

- Types, potential risks and their safe management.

9. **Miscellaneous:**

- Miscellaneous: Paget disease, various types of bone cysts.

Must Know: Rheumatoid arthritis, osteoarthritis
Desirable to know: Paget's disease, bone cyst, haemophilic arthritis

Suggested Teaching/ Learning Methods:

1. Large group: lectures, theory classes and student seminar
2. Small group: tutorials focused group discussions
3. Self-directed learning
4. For assessment of clinical/practical skills and AETCOM methods: DOAP session, simulation lab and ROLE PLAYS

Formative Assessment methods:
MCQS, Long Essay, Short Essay, Short Answer etc for theory, Ward leaving tests at the end of every postings and OSCE, Simulation based Assessment and Viva-Voce for clinical assessment.
The Internal Assessment marks allotted are 50/200 in theory and 50/200 in clinical assessment.
Total hours allotted for theory =100
Lectures=30, Small group discussions=50, Self -directed learning=20

THEORY CLASSES: **Third professional Year Part 2 [1 hr each]**

Sl. No	Topic	Competency
1	Pre-hospital care and Casualty management of a trauma victim including principles of triage	OR 1.1
2	Aetiopathogenesis, clinical features, investigations, and principles of management of shock	OR 1.2
3	Injury to joint: aetiopathogenesis, clinical features, investigations, and principles of management of dislocation of major joints with main emphasis on shoulder.	OR 1.5 OR 2.3
4	Non operative treatment of fractures cast and braces Part 1	OR 13.1
5	Part 2	OR 13.1
6	Fractures of clavicle, proximal humerus, shaft of humerus	OR 2.1-2.3
7	Supracondylar fractures of elbow with discussion on complications	OR 2.4
8	Monteggia and Galeazzi fracture dislocation	OR 2.5
9	Fractures of distal end of radius	OR 2.6
10	Classification of pelvic injuries, emergency and definitive management and management of shock and hemodynamic instability part 1	OR 2.7
11	Part 2	OR 2.7
12	Vertebral column injuries and management	OR 2.8
13	Fracture neck of femur in children and young adults Fracture neck of femur in elderly	OR 2.10
14	Intertrochanteric fractures and proximal femur fractures	OR 2.10
15	Fractures shaft of femur in young adults and elderly	OR 2.12
16	Fractures distal femur	OR 2.13
17	Fractures of tibia and fibula	OR 2.13
18	Fractures of ankle	OR 2.14
19	Fractures talus and calcaneum	OR 2.13
20	Fractures of small foot bones	OR 2.13
21	Dislocations of hip	OR 1.5
22	Bone and joint infections Part 1: Types ,classification and general principles	OR 3.1-3.3
23	Part 2: specific joints and principles in paediatric	OR 3.1-3.3
24	Part3 : surgical management and complications	OR 3.1-3.3
25	Skeletal tuberculosis general principles	OR 4.1
26	Tuberculosis of spine Caries	OR 4.1
27	Tuberculosis of hip and knee	OR 4.1
28	Aetiopathogenesis, clinical features, investigation and principles of management of metabolic bone disorders in particular osteoporosis, Osteomalacia, and rickets	OR 7.1

S.G.L - Third Professional Year Part 2 (7th and 8th term) 1 hr each

Sl. No	Topic	Competency
1	Splints tractions in fracture and associated conditions in orthopaedics	OR 13.1
2	Fractures around the elbow in paediatric population	OR 2.4
3	Management of open fractures with note on complications and prevention of infection	OR 2.16
4	Physeal injuries and Fractures in children: relevant anatomy	
5	Ligamentous injuries of knee joint : relevant anatomy, mode of injury KNEE dislocation ,diagnosis and management	OR 1.3- 1.4 OR 2.15
6	Pulmonary embolism and fat embolism in fractures	OR 2.11-2.12
7	Malunion and principles of treatment	OR 2.15
8	Nonunion types and principles of treatment	OR 2.15
9	Infection and antibiotic protocol in orthopaedics	OR 2.15
10	Spinal cord injuries	OR 2.8
11	Rheumatoid arthritis and associated inflammatory disorders part 1	OR 5.1
12	Part 2 osteoarthritis primary and secondary	OR 5.1
13	Clinical features, investigations and principles of management of degenerative condition of spine Cervical Spondylosis,	OR 6.1
14	Clinical features, investigations and principles of management Lumbar Spondylosis and prolapsed intervertebral disc	OR 6.1
15	Soft tissue conditions duuyntrens contracture,tennis elbow,golfers elbow,trigger finger,dequervians tenosynovitis, carpal tunnel syndrome	
16	Cerebral palsy	OR 9.1
17	Bone tumours general principles	OR 10.1
18	Benign bone tumours	OR 10.1
19	Malignant bone tumours	OR 10.1
20	Bone cysts and tumour like conditions	
21	CTEV	OR 12.1
22	Medicolegal aspects in orthopaedics	
23	Radiation hazards and prevention	
24	Biomedical waste management	
25	Peripheral nerve injuries general principles and upper limb injuries	OR 11.1
26	Peripheral nerve injuries lower limb injuries	OR 11.1
27	Scoliosis	OR 12.1
28	Congenital dislocation of hip	OR 12.1
29	Frozen shoulder ,painful arc syndrome and meralgia paresthetica	

Self-directed learning topics: Third professional year Part 2 (7th and 8th term) 1 hr each

Sl. No	Topic	Competency
1	Definition and Classification of Fractures	
2	Aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries	OR1.3-1.4
3	Recent advances in treatment of fractures	
4	Acetabular fractures	OR 2.9
5	Amputations upper limb and lower limb	
6	Fractures ,Stages Of Healing ,Factors Affecting The Healing	
7	Complications of fractures	
8	Compartment syndrome competency	OR 2.11
9	Reflex sympathetic osteodystrophy and myositis ossificans	
10	Named fractures of upper limb and lower limb	
11	Causes of backache, sciatica	
12	coxa vera , SCFE and Perthes disease	
13	Spina bifida and peripheral neuropathies	
14	Arthroscopy in orthopaedics	
15	Joint replacement in orthopaedics upper limb and lower limb	
16	Poliomyelitis and post-polio residual paralysis OR8.1	OR 8.1
17	Torticollis and cervical rib	
18	Pagets disease , fluorosis and hyperparathyroidism	
19	Mortons neuroma metatarsalgia and stress fracture	
20	Bursitis knee and elbow	

Distribution of subjects in Paper II ORTHOPAEDICS for the University examination shall be as follows:

Paper II - 40 Marks – (Orthopedics)

Type of Questions	Number of questions	Marks for each question	Total marks
Long Essay	10	01	10
Short Essay	03	05	15
Short Answers	05	03	15
Total			**40**

Practical: 2 Short cases of 20 marks each and Viva-Voce 5 marks

Books recommended: [Latest editions]

1. Natarajan M., Textbook of Orthopaedics — Vol. I & II
2. Maheshwari, Textbook of Orthopaedics.
3. Crawford Adams, Outline of Orthopaedics. Fractures and dislocation.
4. Crawford Adams, Outline of Orthopaedics,
5. Baily & Love, A Short Practice of Surgery, 28th ed., (International Students Edition);
6. Graham Apley, System of Orthopaedics.
7. Das S, Clinical Methods in Surgery, 6th ed, S Das .13 Old Mayors, Calcutta.
8. John Ebenezer 4th edition Textbook of Orthopaedics

Department of Anaesthesiology

CBME MBBS Curriculum Phase –III Part II

Goals:

The undergraduate students should realize the importance of safe forms of anaesthesia for different kind of surgeries. They should also know the importance of maintenance of patency of the airway in an unconscious patient – anaesthetised or otherwise.

Objectives:

The undergraduate shall be able to

1. Enumerate different local anaesthetic agents, general anaesthetic agents, muscle relaxants, sedatives and analgesics.
2. They shall also understand the indications, mode of administration, contraindications, and side effects of the agents mentioned above.
3. They shall be trained in CPBR on manikins

Must Know

1. Preanaesthetic checkup and medications.
2. Venepuncture set up and IV drip.
3. Laryngoscopy, Endotracheal intubation.
4. Simple general anaesthetic procedures/Regional Anaesthesia.
5. Monitoring of patients during postoperative period.
6. Local anaesthetic agents and simple blocks.
7. Maintenance of anaesthetic record.
8. Recognition and treatment of complications in the post-operative period.
9. Usage of life support system.
10. To perform CPR on Mannequin

Desirable to Know

1. Recognition and management of problems associated in emergency situations.
2. Crystalloids & Colloids.
3. Blood & Blood component therapy.
4. Oxygen transport and various methods of O_2 administration.
5. ICU & Introduction to mechanical ventilation.

6. Interpretation of ABG
7. Acute pain management

Nice to Know

1. Boyle's Machine.
2. History & Modern trends in practice of Anaesthesia.
3. Chronic pain management.
4. Occupational hazard

Deriving Objectives from Competencies

ANAESTHESIOLOGY (Topics:11, Competencies :52 Number of competencies that require certification:12)							
Topic 1: Anaesthesiology as a specialty		**Number of competencies: (04)**			**Number of competencies that require certification: (NIL)**		
AS1.1	Describe the evolution of Anesthesiology as modern specialty	K	K	N	LGT	Written/ Viva voce	
AS1.2	Describe the roles of Anaesthesiologist in the medical profession (including as a peri-operative physician, in the intensive care and high dependency units, in the management of acute and chronic pain, including labour analgesia, resuscitation of acutely ill)	K	K	N	LGT	Written/ Viva voce	
AS 1.3	Enumerate and describe the principle of ethics as it relates to Anaesthesiology	K	K	N	LGT	Written/ Viva voce	
AS 1.4	Describe the prospects of Anaesthesiology as a career	K	K	N	LGT	Written/ Viva voce	
Topic 2: Cardiopulmonary resuscitation		**Number of competencies: (02)**			**Number of competencies that require certification : (02)**		
AS2.1	Enumerate the indications, describe the steps and demonstrate in a simulated environment, Basic Life Support in adults, children and neonates	K/S	SH	N	DOAP	Skill assessment	2
AS2.2	Enumerate the indications, describe the steps and demonstrate in a simulated environment, Advanced Life Support in adults and children	S	SH	N	DOAP	Skill assessment	2

Number	Competency The Student should be able to	Predominant Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number Required to certify P
Topic 3: Preoperative evaluation and medication		**Number of competencies: (06)**			**Number of competencies that require certification : (02)**		
AS3.1	Describe the principles of preoperative Evaluation	K	KH	Y	LGT, SGT	Written/ Viva voce	
AS3.2	Elicit, present and document an appropriate history including medication history in a patient undergoing Surgery as it pertains to a preoperative anaesthetic evaluation	S	SH	Y	DOAP, Bedside clinic	Skill station	2
AS3.3	Demonstrate and document an appropriate clinical examination in a patient undergoing General Surgery	S	SH	Y	DOAP, Bedside clinic	Skill station	2
AS3.4	Choose and interpret appropriate testing for patients undergoing Surgery	S	SH	Y	DOAP, Bedside clinic	Skill station	
AS3.5	Determine the readiness for General Surgery in a patient based on the preoperative evaluation	S	SH	Y	DOAP, Bedside clinic	Skill station	
AS3.6	Choose and write a prescription for appropriate premedication's for patients undergoing surgery	S	SH	Y	DOAP, Bedside clinic	Skill station	
Topic 4: General Anaesthesia		**Number of competencies: (07)**			**Number of competencies that require certification : (NIL)**		
AS4.1	Describe and discuss the pharmacology of drugs used in induction and maintenance of general anaesthesia (including intravenous and inhalation induction agents, opiate and non-opiate analgesics, depolarising and	K	KH	Y	LGT, SGT	Written/ Viva voce	

	non-depolarising muscle relaxants, anticholinesterases)						
AS4.2	Describe the anatomy of the airway and its implications for general Anaesthesia	K	KH	Y	LGT, SGT	Written/ Viva voce	
AS4.3	Observe and describe the principles and the practical aspects of induction and maintenance of anesthesia	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS4.4	Observe and describe the principles and the steps/ techniques in maintenance of vital organ functions in patients undergoing Surgical competencies	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS4.5	Observe and describe the principles and the steps/ techniques in monitoring patients during anaesthesia	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS4.6	Observe and describe the principles and the steps/ techniques involved in day care anesthesia	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS4.7	Observe and describe the principles and the steps/ techniques involved in anaesthesia outside the operating room	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
Topic 5: Regional anaesthesia		**Number of competencies: (06)**			**Number of competencies that require certification: (NIL)**		
AS5.1	Enumerate the indications for and describe the principles of regional anaesthesia (including spinal, epidural and combined)	K	KH	Y	LGT, SGT	Written/ Viva voce	

Number	Competency The Student should be able to	Predominant Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number Required to certify P
AS5.2	Describe the correlative anatomy of the brachial plexus, subarachnoid and epidural spaces	K	KH	Y	LGT, SGT	Written/ Viva voce	
AS5.3	Observe and describe the principles and steps/ techniques involved in peripheral nerve blocks	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS5.4	Observe and describe the pharmacology and correct use of commonly used drugs and adjuvant agents in regional anesthesia	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS5.5	Observe and describe the principles and steps/ techniques involved in caudal epidural in adults and children	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS5.6	Observe and describe the principles and steps/ techniques involved in common blocks used in surgery (including brachial plexus blocks)	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
Topic 6: Post-anaesthesia recovery		**Number of competencies: (03)**			**Number of competencies that require certification: (NIL)**		
AS6.1	Describe the principles of monitoring and resuscitation in the recovery room	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS6.2	Observe and enumerate the contents of the crash cart and describe the equipment used in the recovery room	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS6.3	Describe the common complications encountered by patients in the recovery	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	

Number	Competency The Student should be able to	Predominant Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number Required to certify P
	room, their recognition and principles of management						
Topic 7: Intensive Care Management		**Number of competencies: (05)**			**Number of competencies that require certification: (NIL)**		
AS7.1	Visit, enumerate and describe the functions of an Intensive Care Unit	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS7.2	Enumerate and describe the criteria for admission and discharge of a patient to an ICU	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS7.3	Observe and describe the management of an unconscious patient	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS7.4	Observe and describe the basic setup process of a ventilator	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS7.5	Observe and describe the principles of monitoring in an ICU	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
Topic 8: Pain and its management		**Number of competencies: (05)**			**Number of competencies that require certification: (NIL)**		
AS8.1	Describe the anatomical correlates and physiologic principles of Pain	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS8.2	Elicit and determine the level, quality and quantity of pain and its tolerance in patient or surrogate	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS8.3	Describe the pharmacology and use of drugs in the management of pain	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS8.4	Describe the principles of pain management in palliative care	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	

AS8.5	Describe the principles of pain management in the terminally ill	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
Topic 9: Fluids		**Number of competencies: (04)**			**Number of competencies that require certification: (NIL)**		
AS9.1	Establish intravenous access in a simulated Environment	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS9.2	Establish central venous access in a simulated environment	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS9.3	Describe the principles of fluid therapy in the preoperative period	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS9.4	Enumerate blood products and describe the use of blood products in the preoperative period	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
Topic 10: Patient safety		**Number of competencies:(04)**			**Number of competencies that require certification: (NIL)**		
AS10.1	Enumerate the hazards of incorrect patient Positioning	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS10.2	Enumerate the hazards encountered in the perioperative period and steps/techniques taken to prevent them	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS10.3	Describe the role of communication in patient safety	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS10.4	Define and describe common medical and medication errors in anaesthesia	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
Topic 11: Oxygen Delivery Devices, Oxygen Therapy and Airway Management		**Number of Competencies: 06**			**Number of competencies that require certification:06**		
AS11.1	Describe oxygen delivery devices - nasal cannulas, simple face masks, Venturi masks non-rebreathing masks, BVM, and	K	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	

	HFNC. Understand the indications in accordance with clinical scenarios. Demonstrate correct setup and usage of oxygen delivery devices ensuring patient safety and device efficiency.						
AS11.2	Describe the principles of oxygen therapy, importance of FiO2, flow rate adjustment, monitoring and safety precautions during oxygen therapy.	S	SH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS11.3	Describe and demonstrate the techniques of opening the airway (head tilt, chin lift, jaw thrust) in a simulated environment.	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS11.4	Observe and demonstrate correct insertion of oropharyngeal and nasopharyngeal airways.	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS11.5	Enumerate the indications of advanced airway management. Describe the steps and demonstrate in a simulated environment -manual ventilation by BVM, Endotracheal intubation, and LMA insertion.	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	
AS11.6	Ventilation Techniques Explain the principle and settings of mechanical ventilation	S	KH	Y	LGT, SGT, DOAP	Written/ Viva voce	

UNDERGRADUATE TEACHING TOPIC

Sl. No	Competencies	Title of the Topic	Teaching Method
1	AS 1.1,1.2, 1.3, 1.4	Anaesthesiologist as a Per-operative physician	SDL-1
2	AS 2.1,2.2	BLS & ALS in Simulated Environment	SGL-1
3	AS3.1,3.2,3.3,3.4,3.5,3.6	PAE(Pre Anaesthetic Evaluation)	SGL-2
4	AS 4.2	Anatomy of Airway and its Anaesthetic implications	Lecture -1
5	AS 4.1,4.3	General Anaestheia	Lecture-2
6	AS 4.4,4.5,9.3,9.4	Peri-Operative monitoring & Fluid management	Lecture-3
7	AS 4.6	Day Care Anaesthesia	Lecture-5
8	AS 4.7	NORA(Non-Operating room anaesthesia)	Lecture-6
9	AS 5.1,5.2,5.3,5.4,5.5,5.6	Regional Anaesthesia	SDL-2
10	AS 6.1,6.2,6.3	PACU (Post Anaesthsia Care Unit)	Lecture-4
11	AS 7.1,7.2,7.3,7.4,7.5	Intensive Care Unit-Set up and management	SGL-3
12	AS 8.1,8.2,8.3	Acute & Chronic pain management	Lecture -7
13	AS 8.4,8.5	Palliative care management	Lecture-8
14	AS 9.1,9.2	Peripheral and central venous access	SGL-4
15	AS 10.1,10.2	Perioperative Hazards	SDL-3
16	AS 10.3,10.4	Medical legal aspects in Anaesthesia	SDL-4
17	AS 11.1,11.2,11.3,11.4,11.5,11.6	Oxygen therapy and airway management	SGL-5

Lecture	SDL (Self Directed Learning)	SGL (Small Group Learning)
Anatomy of Airway and its Anaesthetic implications	Anaesthesiologist as a Per-operative physician	BLS & ALS in Simulated Environment
General Anaestheia	Regional Anaesthesia	PAE (Pre Anaesthetic Evaluation)
Peri-Operative monitoring & Fluid management	Perioperative Hazards	Intensive Care Unit-Set up and management
PACU (Post Anaesthsia Care Unit)	Medical legal aspects in Anaesthesia	Peripheral and central venous access
Day Care Anaesthesia		Oxygen therapy and airway management
NORA (Non-Operating room anaesthesia)		
Acute & Chronic pain management		
Palliative care management		

Number of teaching hours theory: 26 hours

1. Lectures -8
2. SGL-10
3. SDL-8

Clinical postings in III/II =2 Weeks

- Assessment (Formative): MCQs Internal Assessment: NA
- IA marks distribution & eligibility: (As General Surgery Allied Subject-13 marks Out of 150)
- University theory examinations & Clinicals: Will be part of Section II of General Surgery paper & clinical examination of Surgery

RECOMMENDED BOOKS FOR REFERENCE

Recent editions of the following books

1. Lee's synopsis of Anaesthesia.
    - Atkinson, Rushman & David
2. Anaesthesia & Co-existing diseases
    - Robert K. Stoelting
    - Stephen. F. Dierdorf.
3. Clinical Anaesthesiology
    - G. Edvard. Morgan. Jr.
    - Maged. S. Mikhail.
    - Micharl. J. Murray.
    - C Philip Larson-Jr
4. Pharmacology & Physiology in Anaesthetic Practice.
    - Stoelting R.K.

Department of Radiodiagnosis

Radiology: Diagnosis & Imaging

Goals:

1. Realization of the basic need of various radio-diagnostic tools.
2. Radio-diagnostic Techniques to be adopted in different clinical situations in diagnosis of ailments.

Objectives:

Knowledge: The student shall be able to

1. Understand basics of X-ray / USG production, its utility and hazards
2. Appreciate and diagnose radiological changes in diseases of Chest, Abdomen, Skeletal system, Gastro-intestinal system, Genito-urinary System & CNS
3. Learn about various Imaging techniques like nuclear medicine, computerized tomography (CT), Ultrasound, magnetic resonance imaging (MRI), conventional & Digital subtraction Angiography (DSA).

Skills:

At the end of the course the student shall be able to

1. Interpret various radiological findings and their consequences
2. Use basic protective techniques during various Imaging procedures
3. Advice appropriate Diagnostic procedures to arrive at an appropriate diagnosis.

Course content:

I. Bones & Joints:

- Congenital dislocation of hip, congenital syphilis, Achonodroplasis, Osteogenesis Imperfect.
- Infection: Osteomyelitis, Tuberculosis of Bone & Spine.
- Lesions of Joints: Septic / Tuberculous Arthritis, Rheumatoid, Arthritis, Ankylosing Spondylitis, Osteo-Arthritis, Gout. Bone
- Tumours: Ewing's, Osteogenic Sarcoma, Giant Cell Tumour Neurofibroma. Lymphoreticular system & Haemopoietic
- Disorders: Thalassaemia, Sickle Cell disease, Lymphomas, Multiple myeloma, plasmacytoma, Haemophilia.
- Metabolic & Endocrine Disorders of Bone: Rickets & Osteomalacia, Scurvy, Osteoporosis, Acromegaly, and Hyperparathyroidism.
- Skeletal trauma: General Principles.

II. Chest:

- Methods of examination, Normal X-ray Chest, Bronchopulmonary Segments. Interpretation of Abnormal Chest X-ray: Silhouette sign, Air Bronchogram, Interstitial Shadows, Alveolar Shadows, Honeycomb Lung, Cavitations, Calcification, Hilar

Shadow, Mediastinum, Pleura. Bronchography. Bronchogenic Carcinoma. Miliary Shadows, Pulmonary Tuberculosis, Solitary Pulmonary Nodule, Bronchiectasis, Primary complex.

III. Cardio-Vascular System

- Normal Heart: Methods of examination. Cardiomegaly, Pericardial Effusion.
- Acquired Heart Diseases: Valvular Heart Disease, Ischaemic Heart Disease. Congenital Heart Disease. Aortic Aneurysms, Co-arctation of Aorta.

IV. Gastro-intestinal tract & abdomen :

- Barium Examination of GI Tract. Acute Abdomen.
- Oesophagus: Carcinoma, Strictures, Varices, Achalasia, and Hiatus Hernia.
- Stomach & Duodenum: Ulcer disease, Malignancy. Intestine: Intestinal Obstruction, Volvulus, Ulcerative Colitis, Intussusceptions, Malignancy, Hirschsprung's Disease, Koch's Abdomen Diverticular Disease, Polyp's.

V. Hepato-Bilary system, pancreas :

- Liver: Abscess, Hepatoma, Cirrhosis, Portal Hypertension, and Spenoportography.
- Gall-Bladder: Calculus Disease, Malignancy, PTC, ERCP.
- Pancreas: Pancreatitis, Malignancy.

VI. Uroradiology:

- Method of Examination : Intravenous Urography (IVU) Calculus Disease, PUJ Obstruction, PU Valves, Renal Artery Stenosis, Wilm's Tumour, Renal Cell Carcinoma, GU Koch's.

VII. Obstetrics & Gynaecology:

- Hysterosalpingography (HSG), Intra-Uterine Foetal Death, Fibroid, Ovarian Tumours, Ultrasongraphy & Transvaginal US.

VIII. Central Nervous System:

- Raised Intracranial Tension, Intracranial Calcification, Head Injury, Cerebrovascular Accident, Rind Enhancing Lesions in Brain, Spinal Neoplasms, Myelograpy.

IX. Miscellaneous:

- Radiation Hazards, Radiation Protection.
- Imaging Modalities: USG, CT, MRI: Principles, Applications, Advantages, Limitations.
- Angiography: Conventional Angiogram, DSA, Carotid, Coronary, Renal Angiograms, Aortogram.
- Contrast Media: Barium Sulphate, Water Soluble & Oily Contrast.
- Interventional Radiology: Developments, Angioplasty, Embolisation.

- Mammography: Principles & Applications.

Teaching -learning methods:

- Lectures, Tutorials and clinical postings

Distribution of Teaching hours:

- Lectures - 8 hours
- Small group discussion - 10 hrs,
- Self-directed learning - 08 hrs
- Total - 26 hrs
- One clinical postings - 02 weeks in Radiology

Assessment:

Internal assessment

- Theory test -one, posting ending ward leaving examination -one
- Internal assessment marks allotted is 12/200 each in Theory & Practicals.