



SHRI  
DHARMASTHALA  
MANJUNATHESHWARA  
UNIVERSITY

Ordinance Governing  
MBBS Degree Course Phase III  
Curriculum 2020-21

**SHRI DHARMASTHALA MANJUNATHESHWARA UNIVERSITY**

(A State Private University established under the Shri Dharmasthala Manjunatheshwara University  
Act No 19 of 2018 of Government of Karnataka and Notification No. ED 261 URC 2018 dated 19th December 2018)

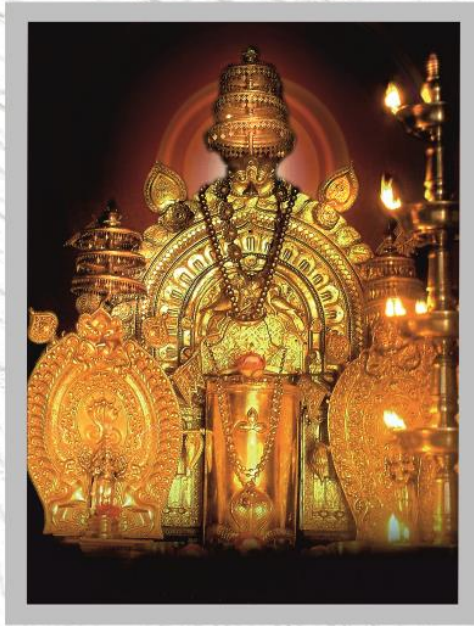
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|| Om Shri Manjunathaya Namaha ||



Shree Kshethra Dharmasthala

**Edition Year : 2021-22**

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## THE LOGO

Poojya Dr D. Veerendra Heggade, Hon'ble Chancellor of the University, while searching for an appropriate Logo for the University, saw a photograph picked from Temple Architecture showing Wings of a Bird, sculpted in Indian style and wanted it to be incorporated in the logo for the University, as the Wings symbolize 'Spreading of Knowledge beyond Boundaries'. Further it was felt that the Central theme of the logo should be 'Rudra' (The Linga) with wings on each side. In this way, the logo of the University was conceptualized.

Hence:

1. The central part represents **Rudra** who Demolishes Darkness.
2. The Three **horizontal lines on The Linga** stand for Samyak Darshan (Right Belief), Samyak Gyan (Right Knowledge) and Samyak Charitra (Right Conduct).
3. The **Wings** symbolize spreading of Knowledge across the boundaries.
4. Base line "**Truth Liberates**" highlights the Purpose of Education: to liberate oneself unconditionally. It shows that it is not discipline, nor knowledge nor the efforts to freedom that liberate but Truth is what liberates you from all your conditioning and ignorance.

The overall significance of Shri Dharmasthala Manjunatheshwara University's Logo is:

**Darkness of ignorance is destroyed by the flow of knowledge to bring Liberty to everyone, by realizing the truth. And, it should spread globally without the boundaries**



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## VISION

Shri Dharmasthala Manjunatheshwara University will set the highest standards of teaching and learning by awakening the intelligence of the students and nurturing the creativity hidden in them by creating an environment where the ancient wisdom blends with modern science, to transform them into whole human beings to face the challenges.

## MISSION

- ▶ To ensure that the journey of education is inspiring, pleasant and enjoyable.
- ▶ Attract the best of teachers and students.
- ▶ Achieve high principles of trust, love and spirituality in the students.
- ▶ Create a collaborative, diverse and exclusive community.
- ▶ Transform the student of today to be a leader of tomorrow and a better human being.
- ▶ Produce passionate teachers.
- ▶ Evolve innovative teaching techniques.
- ▶ Create a peaceful environment.
- ▶ Prepare the student to face the social challenges.
- ▶ Create a University of which the Nation is proud of.
- ▶ Be an effective partner in Nation Building.
- ▶ Create an Eco-friendly University.
- ▶ Create a University based on the principles of beauty, love and justice.

||Om Shanti! Om Shanti! Om Shanti||



**SHRI  
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MANJUNATHESHWARA  
UNIVERSITY**

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SDMU/ACAD/MED/UG/F-4/Notif-144/180/2020

Date: 19-09-2020

## NOTIFICATION

### Ordinance governing Curricula of MBBS Professional Year III

- Ref:
1. NMC Regulations on Graduate Medical Education (Amendment) 2019 (Ref. No. MCI-34(41)/2019-Med./161726 dated: 4<sup>th</sup> November, 2019)
  2. Notification from Board of Governors in Supersession of MCI (Letter No: MCI-Academics/2019/128106; Dated:06-07-2019)
  3. Medical Council of India Regulations on Graduate Medical Education, 1997 and its Subsequent Amendments
  4. Minutes of the 3<sup>rd</sup> Meeting of Academic Council held on 3<sup>rd</sup> August 2020 (Ref. No. SDMU/AC/M3/131/2020 Dated: 03-08-2020)

In exercise of the powers conferred under Statutes 1.4 (Powers and functions - Para ix & x) of Shri Dharmasthala Manjunatheshwara University, the Academic Council has accorded its approval for the notification on the ordinance governing the Curricula of MBBS Professional Year III.

The ordinance shall be effective from the date of notification.

Lt. Col. U. S. Dinesh (Retd.)  
REGISTRAR

To: The Principal, SDM College of Medical Sciences & Hospital.

Copy for information to:

1. Hon'ble Chancellor, Shri Dharmasthala Manjunatheshwara University, Dharwad
2. Hon'ble Vice Chancellor - Shri Dharmasthala Manjunatheshwara University.
3. Pro Vice-Chancellor (Academics) - Shri Dharmasthala Manjunatheshwara University.
4. Controller of Examinations, Shri Dharmasthala Manjunatheshwara University.
5. Chairperson, Board of Studies - Medical UG Clinical (Medicine & Allied Subjects)
6. Chairperson, Board of Studies - Medical UG Clinical (Surgery & Allied Subjects)
7. University Office for Records File
8. Office of the Registrar



## **DISCLAIMER**

This curriculum booklet has been framed as per the guidelines issued by the National Medical Council and is subject to modifications as and when the National Medical Council amends the aforesaid guidelines.

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## **COMMUNITY MEDICINE**

### **1. GOAL**

Broad goal of teaching undergraduate medical students is to prepare the students to function effectively as Community and Primary Care Physician.

### **2. OBJECTIVES**

#### **i. KNOWLEDGE**

The student shall be able to:

1. Enumerate the principles and practice of medicine in hospital and community setting.
2. Describe the natural history and role of agent, host and environmental factors in health and disease.
3. Describe the concepts of community health and levels of health care with related health interventions.
4. Explain the principles of sociology and identify social factors related to health, disease and disability.
5. Describe and analyse the role of socio-cultural beliefs in health and disease and their impact on individuals, family, and community.
6. Describe the elements of normal psychology and social psychology.
7. Describe the various health education and effective communication methods.
8. Describe the demographic pattern of the country and its relation to health.
9. Describe vital statistics and various methods used to collect the vital statistics in India.
10. Describe the health care delivery system in India
11. Describe the organizations and functions of primary health centre, community health centre and district level health centre.
12. Describe uses and interpretation of basic bio-statistical data.
13. Describe the basics of research in medical field.

## **ii. SKILLS**

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

1. Practice principles of medicine in hospital and community settings.
2. Interpret health and illness behaviour at individual and community level.
3. Demonstrate art of communication with patients including history taking and role of socio-cultural aspects of diseases.
4. Formulate a research plan to undertake projects funded by ICMR, other universities and funding agencies.
5. Demonstration of various government agencies involved in delivery of health care services to the community.

## **iii. ATTITUDE AND COMMUNICATION SKILLS**

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

1. Demonstrate ability to communicate to patients in a patient, respectful, non-threatening, non-judgmental and empathetic manner.
2. Counsel individuals, families and communities regarding how to stay healthy, what they can individually and collectively do to maintain health and when to seek help.
3. Demonstrate an understanding of national and regional health care policies including the National Health Mission (NHM), frameworks, economics and systems that influence health promotion, health care delivery, disease prevention, effectiveness, responsiveness, quality and patient safety.
4. Demonstrate an understanding of role of health care team, functions of members of such a team as well as demonstrate ability to function as a leader at the primary care level.
5. Demonstrates an understanding of notifiable diseases, international health regulations, prevention and control of diseases of public health importance.
6. Demonstrate ability to provide a continuum of care at the primary and/or secondary level that addresses chronicity, mental and physical disability and appropriately identify and refer patients who may require specialized or advanced tertiary care.

#### iv. INTEGRATION

The knowledge acquired in Community Medicine should help the students to understand the impact of environment, society and National Health priorities as they relate to the promotion of health and prevention as well as cure of disease.

### 3. TEACHING HOURS AND COURSE CONTENT

#### A. Total Teaching hours:

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching (Lecture / Integrated Teaching)	40
2	Small group teaching (SGT): SGD/Tutorials/Seminars/Practicals	60
3	Self-directed Learning( SDL)	05
	<b>TOTAL</b>	<b>105</b>

Sl. No	Teaching Learning Method Practicals	No. of weeks
1	Bedside clinics/field visits	6
	<b>TOTAL</b>	

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	5
2	Pandemic module	18
3	Skill lab	
	<b>TOTAL</b>	

## B. Course contents

### i. THEORY

Sl. No.	Topic/ System: (With Competency Number) core/ non-core competency	Large group teaching domain K LEVEL K/KH,	No. of Hours=40
1	Concept of health and disease (CM 1.7) Core: <ul style="list-style-type: none"> <li>Health indicators</li> </ul>	K / KH	1
2	Relationship of social and behavioral factors to health and disease (CM 2.5) <ul style="list-style-type: none"> <li>Poverty and social security measures and its relationship with health and disease</li> </ul>	K / KH	1
3	Environment & Health (CM 3.1, 3.2, 3.4, 3.5) Core: <ul style="list-style-type: none"> <li>Water – safe and wholesome water, sanitary sources, water pollution, conservation</li> <li>Purification of water – large scale &amp; small scale</li> <li>Air &amp; air pollution, health hazards due to pollution</li> <li>Solid waste management, Excreta &amp; sewage disposal</li> <li>Housing standards and effect of housing on health</li> </ul>	K / KH K / KH K / KH K / KH	1 1 1 1
4	Biostatistics (CM 6.1, 6.2, 6.3, 6.4) Core: <ul style="list-style-type: none"> <li>Selection &amp; formulation of Research question</li> <li>Data collection, types of data, Sampling</li> <li>Presentation of data, Normal distribution</li> <li>Measures of central tendency &amp; dispersion</li> <li>Tests of significance &amp; their interpretation</li> </ul>	K / KH S / SH S/ SH S/ SH	1 1 1 1
5	Demography and vital statistics (CM 9.6) <ul style="list-style-type: none"> <li>National Population Policy</li> </ul>	K / KH	1

6	<p>Reproductive, maternal and child health (CM 10.1, 10.2, 10.3, 10.5, 10.7, 10.8)</p> <p>Core:</p> <ul style="list-style-type: none"> <li>• Maternal health problems, screening for common health problems and local customs and practices during pregnancy, childbirth, lactation and child feeding affecting maternal health.</li> <li>• Child health problems, screening for common health problems and local customs and practices during pregnancy, childbirth, lactation and child feeding affecting child health.</li> <li>• Maternal and Child Health (MCH) service delivery, MCH indicators and their current status, Maternal mortality</li> <li>• Mortality in infancy &amp; childhood</li> <li>• Universal Immunization Program and IMNCI</li> <li>• School health services, behavioral problems, juvenile delinquency</li> <li>• Children in difficult situations, Handicapped child, Prevention, International Classification Functionality, Disability and Health</li> <li>• Adolescent health – physiology, clinical management and principles including ARSH.</li> <li>• Basis and principles of Family Welfare Program including organizational, technical and operational aspects.</li> </ul>	<p>K / KH</p> <p>K / KH</p> <p>K / KH</p> <p>K / KH</p> <p>K / KH</p> <p>K / KH</p> <p>K / KH</p> <p>K / KH</p>	<p>1</p> <p>1</p> <p>2</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>
7	<p>Occupational health (CM 11.1, 11.2, 11.3, 11.4)</p> <p>Core:</p> <ul style="list-style-type: none"> <li>• Occupational health hazards – types, presenting features</li> <li>• Occupational diseases – classification, lead poisoning, occupational cancer, occupational dermatitis, radiation hazards, accidents in industries.</li> </ul>	<p>K / KH</p> <p>K / KH</p>	<p>1</p> <p>1</p>

	<ul style="list-style-type: none"> <li>Principles of ergonomics and prevention of occupational diseases – medical, engineering &amp; legal measures including employees state insurance scheme</li> </ul>	K / KH	1
8	Geriatric services (CM 12.1, 12.2, 12.3, 12.4) <ul style="list-style-type: none"> <li>Concept of geriatric services, Health problems of aged population and its prevention, National program for health care of the elderly</li> </ul>	K / KH	1
9	Disaster management (CM 13.1, 13.2, 13.3, 13.4) Core: <ul style="list-style-type: none"> <li>Definition of disaster, types of disaster and disaster management cycle</li> <li>Manmade disaster</li> <li>National Disaster Management Authority</li> </ul>	K / KH K / KH K / KH	1 1 1
10	Mental Health (CM 15.1, 15.2, 15.3) Core: <ul style="list-style-type: none"> <li>Concept of mental health - types of mental illnesses, causes, warning signals &amp; prevention</li> <li>National Mental Health Program</li> </ul> Non core: <ul style="list-style-type: none"> <li>Substance abuse</li> </ul>	K / KH K / KH K / KH	1 1 1
11	Health planning and management (CM 16.1, 16.2) <ul style="list-style-type: none"> <li>Concept of health planning and planning cycle</li> </ul>	K / KH	1
12	International health (CM 18.1, 18.2) Core: <ul style="list-style-type: none"> <li>Concept of international health, UN organizations</li> <li>Bilateral agencies, NGO</li> </ul>	K / KH K / KH	1 1
13	Recent advances in Community Medicine (CM 20.1, 20.3, 20.4) Core: <ul style="list-style-type: none"> <li>Public health events of last five years</li> <li>Public health legislations</li> <li>Ayushmann Bharat &amp; Swachh Bharat</li> <li>Urban health</li> </ul>	K / KH K / KH K / KH K / KH	1 1 1 1

<b>Sl. No.</b>	<b>Topic/ System: (With Competency Number) core/ non-core competency</b>	<b>Small group teaching domain K/S/A Level K/KH/S/SH,</b>	<b>No. of Hours=24</b>
1	Relationship of social and behavioral factors to health and disease (CM 2.2) <ul style="list-style-type: none"> <li>• Role of socio-cultural factors in health and disease</li> <li>• Types of family and its role in health and disease</li> </ul>	S / SH S / SH	1 1
2	Environment and health (CM 3.6) <ul style="list-style-type: none"> <li>• Role of vectors in causation of diseases and National Vector Borne Disease Control Program</li> </ul>	K / KH	2
3	Nutrition (CM 5.6) <ul style="list-style-type: none"> <li>• National Nutrition Policy, Iodine Deficiency Disorders Program, National Nutritional Programs and ICDS</li> </ul>	K / KH	2
4	Epidemiology of communicable and non-communicable diseases (CM 8.3) <ul style="list-style-type: none"> <li>• National Tuberculosis Elimination Program</li> <li>• National Leprosy Eradication Program</li> <li>• National Program for Control of Blindness</li> <li>• National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke.</li> </ul>	K / KH K / KH K / KH K / KH	2 1 1 1
4	Principles of health promotion and education (CM 4.2) <ul style="list-style-type: none"> <li>• Organizing health promotion, education and counselling activities at individual, family and community settings</li> </ul>	K / KH	1

5	Reproductive, maternal and child health (CM 10.4) <ul style="list-style-type: none"> <li>• RCH and RMNCH+A</li> </ul>	K / KH	3
6	Occupational health (CM 11.1, 11.3, 11.5) <ul style="list-style-type: none"> <li>• Occupational disorders of health professionals, prevention &amp; management.</li> <li>• Pneumoconiosis, occupational hazards of agricultural workers</li> </ul>	K / KH	1
		K / KH	1
7	Hospital waste management (CM 14.1, 14.2) <ul style="list-style-type: none"> <li>• Hospital waste – definition &amp; classification, categories, segregation, collection, treatment, processing &amp; disposal</li> </ul>	K / KH	1
8	Health planning and management (CM 16.3, 16.4) <ul style="list-style-type: none"> <li>• Health management techniques</li> <li>• Health planning in India, National policies related to health and health planning</li> </ul>	K / KH	1
		K / KH	1
9	Health care of the community (CM 17.4, 17.5) <ul style="list-style-type: none"> <li>• Millennium Development Goals and Sustainable Development Goals</li> <li>• Health care delivery in India</li> <li>• National Urban Health Mission</li> <li>• National Rural Health Mission</li> </ul>	K / KH	1
		K / KH	1
		K / KH	1
		K / KH	1

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Self-directed learning domain K/S/A Level K/KH	No. of Hours=5
1	Environment & Health (CM 3.1) <ul style="list-style-type: none"> <li>• Effect of Noise and radiation on health</li> </ul>	K / KH	1
2	Reproductive, maternal and child health (CM 10.9) <ul style="list-style-type: none"> <li>• Gender issues &amp; women empowerment</li> </ul>	K / KH	1
3	Occupational health (CM 11.1, 11.3) <ul style="list-style-type: none"> <li>• Health problems due to industrialisation and sickness absenteeism</li> </ul>	K / KH	1



4	Hospital waste management (CM 14.3) <ul style="list-style-type: none"> <li>Laws related to hospital waste management</li> </ul>	K / KH	1
5	International health (CM 18.1, 18.2) <ul style="list-style-type: none"> <li>International health regulations</li> </ul>	K / KH	1

## ii. PRACTICAL

Sl. No.	Topic with competency number	Bedside Clinics/DOAP/field visits Domain / Level	Teaching Hours (total = 36)
1	Water quality – criteria & standards, surveillance, hardness of water (CM 3.2)	Demonstration K / KH	2
2	Indices of thermal comfort & meteorology (CM 3.1)	Demonstration K / KH	2
3	Life cycle of vectors of public health importance and their control measures (CM 3.7)	Demonstration S / SH	8
4	Mode of action, application cycle of commonly used insecticides & rodenticides (CM 3.8)	Demonstration K / KH	2
5	Protective devices to prevent occupational health hazards (CM 11.3)	Demonstration K /KH	2
6	Growth & development, usage of growth chart to screen PEM (CM 10.2)	Demonstration K /KH	2
7	Family planning devices (CM 10.6)	Demonstration K / KH	2
8	Selection & formulation of Research question, Data collection, types of data, Sampling (CM 6.1, 6.4)	Demonstration S / SH	2
9	Presentation of data (I & II), Normal distribution (CM 6.2)	Demonstration S /SH	4

10	Measures of central tendency & dispersion (CM 6.4)	Demonstration S /SH	2
11	Tests of significance & their interpretation (I & II) (CM 6.3)	Demonstration S/ SH	4
12	Vital & Population statistics (CM 9.2)	Demonstration S/ SH	4

## BEDSIDE CLINICS

Sl. No.	Topic with competency number	Bedside Clinics/DOAP/field visits Domain / Level	No. of weeks = 6 Teaching Hours (total = 108)
1.	Visit to water treatment plant to understand the process of water purification (CM 3.2)	Field visits K / KH	3
2.	Visit to sewage treatment plant to understand sewage disposal (CM 3.4)	Field visits K / KH	3
3.	Performance of clinico-socio-cultural and demographic assessment of individual, family and community (CM 2.1)	Demonstration S / SH	3
4.	Assessment of socioeconomic status in a simulated environment (CM 2.2)	Demonstration S / SH	3
5.	Types of family and role of family in health and disease (CM 2.2)	Demonstration S / SH	3
6.	Role of socio-cultural factors in health and disease (CM 2.2)	Demonstration S / SH	3
7.	Standards of housing and effect of housing on health (CM3.5)	Demonstration K / KH	3
8.	Nutritional assessment of individuals, families and community by using the appropriate method	Demonstration S / SH	3
9.	Interventions at various levels of prevention (CM 1.5)	Demonstration K / KH	3

10.	Clinico-socio-cultural and demographic assessment of an antenatal woman (CM 2.1, 2.2, 10.2)	Demonstration S / SH	6
11.	Clinico-socio-cultural and demographic assessment of a postnatal woman (CM 2.1, 2.2, 10.2)	Demonstration S / SH	6
12.	Clinico-socio-cultural and demographic assessment of an under-five child with protein energy malnutrition (CM 2.1, 2.2, 10.2)	Demonstration S / SH	6
13.	Clinico-socio-cultural and demographic assessment of an under-five child with acute respiratory infection (CM 2.1, 2.2, 10.2, CM 8.1, 8.5, 8.6)	Demonstration S / SH	6
14.	Clinico-socio-cultural and demographic assessment of an under-five child with diarrhoea (CM 2.1, 2.2, 10.2, CM 8.1, 8.5, 8.6, CM 3.3)	Demonstration S / SH	6
15.	Clinico-socio-cultural and demographic assessment of an individual with Fever under evaluation/ Vector borne disease (CM 2.1, 2.2, 3.6, 8.1, 8.5, 8.6)	Demonstration S / SH	6
16.	Clinico-socio-cultural and demographic assessment of an individual with HIV (CM 2.1, 2.2, 8.1, 8.5, 8.6)	Demonstration S / SH	6
17.	Clinico-socio-cultural and demographic assessment of an individual with Viral Hepatitis (CM 2.1, 2.2, 8.1, 8.5, 8.6)	Demonstration S / SH	6
18.	Clinico-socio-cultural and demographic assessment of an individual with Tuberculosis (CM 2.1, 2.2, 8.1, 8.5, 8.6)	Demonstration S / SH	6
19.	Clinico-socio-cultural and demographic assessment of an individual with Leprosy (CM 2.1, 2.2, 8.1, 8.5, 8.6)	Demonstration S / SH	6
20.	Clinico-socio-cultural and demographic assessment of an individual with Hypertension (CM 2.1, 2.2, 8.2)	Demonstration S / SH	6

21.	Clinico-socio-cultural and demographic assessment of an individual with Diabetes Mellitus (CM 2.1, 2.2, 8.2)	Demonstration S / SH	6
22.	Clinico-socio-cultural and demographic assessment of an individual with Cancer (CM 2.1, 2.2, 8.2)	Demonstration S / SH	6
23.	End of posting case presentation		3

**CERTIFIABLE SKILLS:**

**None enlisted in UG curriculum vol II**

**iii. AETCOM,**

Sl. No.	AETCOM Module Number	Lectures [hours]	Small group [hours]	No. of Hours

**PANDEMIC MODULE**

Sl. No.	PANDEMIC MODULE No.	Lectures [hours]	Small group [hours]	No. of Hours 18 hours
1	3.1 Outbreak management including quarantine, isolation, contact tracing	2	3	5
2	3.2 Interdisciplinary collaboration, Principles of Public Health Administration, Health Economics	3	2	5
3	3.3 Operational Research, field work, surveillance	3	5	8

#### 4. SCHEME OF EXAMINATION:

##### Eligibility criteria:

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

#### FORMATIVE ASSESSMENT

##### THEORY INTERNAL ASSESSMENT:

- A minimum of 2 Internal Assessments (IAs) to be conducted
- One of the internal exams will be conducted like preliminary exams
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- **Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]**
- Written exams will include MCQ's[MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30%of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

**The distribution of internal assessment marks shall be as mentioned below:**

DEPARTMENT OF COMMUNITY MEDICINE								
Integrated phase-wise Internal Assessment								
THEORY		Phase 1		Phase 2		Phase 3-1		Final Total
		IA-1	IA-2	IA-3	IA-4	IA-5	IA-6	
Written	Theory <sup>#</sup>	30	25	30	25	50	75	
	MCQ	10	10	10	10	10	20	
	AETCOM*	--	05	--	05	--	05	
FA	Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments	05	05	05	05	10	10	
	Logbook	05	05	05	05	10	10	
<b>Total</b>		<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>80</b>	<b>120</b>	<b>400</b>
<p><b>FINAL THEORY IA MARKS = 100 (final total divided by 4)</b></p> <p>* To be included as a question in theory paper</p> <p># Pandemic module to be included in theory exam</p> <p>IA-6 is Preliminary exam and hence to be conducted as two theory papers of 100 marks each, and average of both papers is used for tabulation</p>								

#### **PRACTICAL INTERNAL ASSESSMENT**

- Clinical end posting exams [EOP] will be conducted
- Viva/oral examination should assess approach to clinical context and included in practical IA marks.

**Practicals:**

<b>DEPARTMENT OF COMMUNITY MEDICINE</b>				
Integrated phase-wise Internal Assessment				
<b>PRACTICAL</b>		<b>Phase 2 4wk posting</b>	<b>Phase 3-1 6wk posting</b>	<b>Final Total</b>
<b>EOP/ Practical</b>	<b>Clinical &amp; Practical skills assessment (OSCE/OSPE/ Mini-CEX/ Case presentation/ AETCOM)</b>	50	90	
	<b>Viva-voce (may include AETCOM)</b>	10	10	
<b>Others</b>	<b>Formative assessment</b>	10	10	
	<b>Logbook/ Record book</b>	10	10	
<b>Total</b>		<b>80</b>	<b>120</b>	
<p><b>FINAL PRACTICAL IA MARKS = 100 (final total divided by 2)</b>            At least one EOP is to be conducted with OSCE as a part of it.            AETCOM may be included as an OSCE station or as a part of viva-voce during EOP, if it            needs to be assessed in practical (Refer competency booklet &amp; AETCOM module)            * Only if applicable</p>				
<b>PRACTICAL &amp; EOP TOGETHER</b>				

## Blue-printing of internal assessments in Community Medicine

BLUEPRINT	Number of questions						
	IA-1	IA-2*	IA-3	IA-4*	IA-5	IA-6	
						Paper 1	Paper 2
<b>MCQ</b> (1 mark each)	10	10	10	10	10	20	20
<b>Structured Long Essay</b> (10 marks each)	00	00	01	01	01	02	02
<b>Short Essay</b> (5 marks each)	04	04	02	02	04	08	08
<b>Short Answer</b> (2 marks each)	05	05	05	05	10	10	10
<b>Total</b> (in marks)	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>60</b>	<b>100</b>	<b>100</b>
<b>*AETCOM should have a weightage of 5 marks</b>							

### **B. SUMMATIVE ASSESSMENT:**

Community medicine is learnt and assessed during professional years [PY] 1, 2 and 3 part 1. SA will be held at the end of 3<sup>rd</sup> professional year part 1.

#### **Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams



- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University as the case may be prior to the declaration of his/her results in that particular phase. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

### MARKS DISTRIBUTION FOR UNIVERSITY SUMMATIVE EXAMINATION

THEORY			THEORY TOTAL	PRACTICAL		total
	Written paper	MCQ's		Practical	Viva	
Paper 1	80	20	100	80	20	100
Paper 2	80	20	100			
Total marks			200	Total marks		100

Time: 3 hours for theory paper

The pattern of questions in theory paper shall be as mentioned below:

Type of Question	Number of Questions	Maximum Marks for each question	Total
Structured Long essay questions (SLEQ)	2	10	20
Short essay questions (SEQ) (Includes case vignette-based questions)	8	05	40
Short answer questions (SAQ)	10	02	20
Multiple Choice Questions (MCQs)	20	01	20
Total marks			100

The question papers shall be based on the blue print of question paper setting.

**Blueprint for the theory examinations (For use by the question paper setter)**

PAPER TOPICS	Weightage of marks as per SDMU guidelines Paper 1	Weight age of marks as per SDMU guidelines Paper 2	MCQs 1 mark each	SLEQs 10 marks each	SEQs 5 marks each	SAQs 2 marks each	Total Marks*
Man, and medicine towards health for all	0.01						1
Concept of health and disease	0.07						7
Principles of epidemiology and epidemiologic methods	0.11						11
Screening	0.11						11
Millennium development goals to sustainable development goals	0.07						7
Medicine and social sciences	0.05						5
Nutrition and health	0.11						11
Environment and health	0.11						11

Occupational health	0.04						4
Hospital waste management	0.07						7
Communication for health education	0.11						11 (includes AETCOM)
Health information and basic medical statistics	0.07						7
Essential and counterfeit medicines	0.07						7
Epidemiology of communicable diseases		0.14					14
Epidemiology of chronic non-communicable diseases and conditions		0.14					14
Health programs in India		0.09					9
Demography and family planning		0.09					9
Preventive medicine in obstetrics pediatrics and geriatrics		0.14					14
Mental health		0.03					3
Genetics and health		0.03					3

Tribal health in India		0.03					3
Health planning and management		0.09					9
Health care of the community		0.09					10 (includes AETCOM)
Disaster management		0.09					9
International health		0.03					3
MCQs	20	20					
AETCOM	SEQ Case vignette based 05	SEQ Case vignette based 05					
TOTAL	100	100					

\*Total marks include MCQs.

The weightage of marks allotted for each topic shall be strictly adhered to while setting a question paper. A minimum OF 10% and up to a maximum of 30% marks shall be allocated to assess the higher order thinking of the learner.

The questions framed shall be with appropriate verbs without any ambiguity or overlap.

*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.*

### **PRACTICAL SUMMATIVE EXAMINATION: TOTAL 100 MARKS**

1. Clinico-social case – 35 marks
2. Problems – 35 marks
3. Spotters – 10 marks
4. Viva Voce: 20 marks

## 5. INTEGRATION:

Competency list for integration					
SL	Comp No.	Competency to be integrated	nesting/ sharing/ aligning /correlation	Integrating department	
				Horizontal	Vertical
1	CM 10.2, 10.3	Maternal health problems, screening for common health problems and local customs and practices during pregnancy, childbirth, lactation and child feeding affecting maternal health.		----	Obstetrics and Gynecology
2	CM 10.2, 10.3	Child health problems, screening for common health problems and local customs and practices during pregnancy, childbirth, lactation and child feeding affecting child health.		----	Pediatrics
3	CM 12.1, 12.2, 12.3	Concept of geriatric services, Health problems of aged population and its prevention, National program for health care of the elderly		----	General Medicine
4	CM 15.3	National Mental Health Program		----	Psychiatry

## **RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS**

### **Textbooks**

1. Park JE, Park K, Text Book of Preventive & Social Medicine, 25<sup>th</sup> Ed., M/S Banarsidas Bhanot, Jabalpur, India.
2. Suryakantha AH, Community Medicine With Recent Advances 5<sup>th</sup> Ed., Jaypee Brothers Medical Publishers, New Delhi, India.
3. Kishore J, National Health Programmes of India , 12<sup>th</sup>Ed., Century Publications, New Delhi, India.

### **Reference books**

1. Sunder Lal, Adarsh, Pankaj. Textbook of Community Medicine, 5<sup>th</sup> Ed., CBS Publishers, New Delhi, India.
2. Mahajan BK, Methods in Biostatistics for Medical Student and Research Workers, 8<sup>th</sup> Ed., Jaypee Brothers Medical Publishers, New Delhi, India.
3. Kadri AM, IAPSM 's Textbook of Community Medicine 1<sup>st</sup> Edition, Jaypee Brothers Medical Publishers, New Delhi, India
4. Mahabalaraju DK, Essentials of Community Medicine Practicals, 2<sup>nd</sup> Ed., Jaypee Brothers Medical Publishers, New Delhi, IndiaWallace RB, Public Health and Preventive Medicine, 15<sup>th</sup> Ed., McGraw-Hill Medical Publishers, USA.
5. Roger D, Robert B, Mary AL, Martin G, Oxford Textbook of Public Health, 5<sup>th</sup> Ed., Oxford University Press, USA
6. Gordis L, Epidemiology, 5<sup>th</sup> Ed., Elsevier Saunders publication, Philadelphia.
7. Sathe PV, Sathe AP, Epidemiology & Management for Health Care for All, 3<sup>rd</sup> Ed., Popular Prakashan Pvt. Ltd., Mumbai, India.

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## FORENSIC MEDICINE & TOXICOLOGY

### 1. GOAL

- i. To facilitate the IMG to achieve the expected competency in the subject of Forensic Medicine.
- ii. To inculcate research attitude amongst IMGs in the field of Forensic Medicine.

### 2. OBJECTIVES

#### 2.1 KNOWLEDGE

**To ensure that at the end of the course the student acquires required**

- i. Understanding of the medico-legal responsibilities of physicians in primary and secondary care settings,
- ii. Understanding of the rational approach to the investigation of crime, based on scientific and legal principles,
- iii. Ability to manage medical and legal issues in cases of poisoning / overdose,
- iv. Understanding of the medico-legal framework of medical practice and medical negligence,
- v. Understanding of codes of conduct and medical ethics.

#### 2.2 SKILLS

**To ensure acquisition of necessary skills by the student, essential for Medico-legal work.**

#### 2.3 ATTITUDE AND COMMUNICATION SKILLS

**At the end of the course, the learner shall be able to:**

- i. Respect autonomy of the deceased and his/her survivors.
- ii. Demonstrate empathy towards the relatives of the deceased.
- iii. Respect privacy and maintain confidentiality
- iv. Communicate effectively with the survivors of the deceased
- v. Respect the deceased.

## 2.4 INTEGRATION

To ensure that the knowledge and skills acquired in Forensic Medicine help the student to understand the importance of medico-legal, ethical and toxicological issues and apply the same during practice of Medicine.

## 3. TEACHING HOURS AND COURSE CONTENT

### A. Teaching Hours

Sl. No	Teaching Learning Method	No. of Hours
1	Large group teaching	25
2	Small group teaching (SGT): SGD/Tutorials/Seminars/Integrated teaching/Practical/Autopsies	45
3	Self-directed Learning (SDL)	05
	<b>TOTAL</b>	<b>75</b>

Sl. No	Teaching Learning Method Practical	No. of hours
1	Practical/Autopsies	18
	<b>TOTAL</b>	<b>18</b>

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	
2	Skill Lab	
	<b>TOTAL</b>	

### B. Course Contents

#### i) THEORY

Sl. No.	Topic/ System: (With Competency Number) core/ non-core competency	Large group teaching Domain K Level K/KH	No. of Hours=25
1.	<b>Clinical Forensic Medicine</b> (FM3.13, FM3.14, FM3.18, FM3.19, FM3.20,		8



	<p>FM3.22, FM3.23, FM3.25, FM3.26, FM3.27, FM3.28)</p> <p><b>Core:</b></p> <ul style="list-style-type: none"> <li>• Sexual Offences</li> <li>• Virginity, Defloration, legitimacy</li> <li>• Medicolegal aspects of Pregnancy and Delivery</li> <li>• Disputed paternity and maternity</li> <li>• Impotence and Sterility</li> <li>• Sterilization, Artificial Insemination, Surrogacy, Hormone replacement therapy, ART clinics in India</li> <li>• Abortion</li> </ul>	<p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p>	
2.	<p><b>Medical Jurisprudence</b> (FM4.1, FM4.2, FM4.3, FM4.4, FM4.5, FM4.6, FM4.8, FM4.11, FM4.25, FM4.26, FM4.27)</p> <p><b>Core:</b></p> <ul style="list-style-type: none"> <li>• Medical Ethics- historical emergence</li> <li>• Code of Medical Ethics 2002 and unethical practices</li> <li>• National Medical Commission of India and State Medical Councils, Indian Medical Register</li> <li>• Rights and privileges of medical practitioner, Infamous conduct, Disciplinary procedures, warning notice, penal erasure</li> <li>• Laws in relation to medical practice; Duties of medical practitioner towards patient and society</li> <li>• Consumer Protection Act- 1986, Workman's Compensation Act &amp;</li> </ul>	<p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p>	7

	<p>ESI Act</p> <ul style="list-style-type: none"> <li>• Products liability and medical Indemnity Insurance</li> <li>• Euthanasia</li> <li>• Ethical committees</li> </ul> <p><b>Non-core:</b></p> <ul style="list-style-type: none"> <li>• Clinical research and Ethics- Human experimentation</li> <li>• Ethical guidelines for biomedical research in humans and animals</li> </ul>		
3.	<p><b>Forensic Psychiatry</b> (FM5.1, FM5.2, FM5.4, FM5.5)</p> <p><b>Core:</b></p> <ul style="list-style-type: none"> <li>• Common mental illnesses</li> <li>• Delusions, hallucinations, illusions, obsessions</li> <li>• Lucid interval</li> <li>• True and feigned insanity</li> <li>• Delirium tremens</li> </ul>	<p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p>	2
4.	<p><b>General toxicology</b> (FM8.1, FM8.2, FM8.3, FM8.4, FM8.5, FM8.6, FM8.8, FM8.10)</p> <p><b>Core:</b></p> <ul style="list-style-type: none"> <li>• History of Toxicology</li> <li>• Types of poisons, Toxicokinetics, Toxicodynamics, Diagnosis of poisoning in the living and dead</li> <li>• Laws in relation to poisons</li> <li>• Procedure of autopsy in cases of poisoning</li> <li>• Treatment of poisoning</li> <li>• Analytical Toxicology</li> </ul>	<p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p>	3
5.	<p><b>Chemical Toxicology</b> (FM9.2, FM9.3)</p> <p><b>Core:</b></p> <p>General Principles and basic</p>		3

	methodologies in treatment of: <ul style="list-style-type: none"> <li>Inorganic Non-metallic Irritants</li> <li>Metallic Irritants</li> </ul>	K/KH K/KH	
6.	<b>Pharmaceutical Toxicology (FM10.1)</b> <b>Core:</b> General Principles and basic methodologies in treatment of: <ul style="list-style-type: none"> <li>Antipyretics, Antibiotics, CNS depressants, Antidepressants, Gastro-intestinal and Endocrinal drugs</li> <li>Cardiotoxic plants</li> </ul>	K/KH  K/KH	2

Sl. No.	Topic/ System: (With Competency Number) core/ non-core competency	Small group teaching Domain K/S/A Level K/KH/S/SH	No. of Hours=27
1.	<b>Forensic Pathology (FM2.27, FM2.28)</b> <b>Core:</b> <ul style="list-style-type: none"> <li>Infanticide, foeticide and stillbirth</li> <li>Signs of intrauterine death, signs of live birth, age determination of foetus, Sudden Infant Death syndrome, Manchausen's syndrome by proxy</li> </ul>	K/KH K/KH	3
2.	<b>Clinical Forensic Medicine (FM3.15, FM3.16, FM3.17, FM3.29)</b> <b>Core:</b> <ul style="list-style-type: none"> <li>Sexual Offences</li> <li>Child abuse and battered baby syndrome</li> </ul>	K/KH K/KH	2
3.	<b>Medical Jurisprudence (FM4.7, FM4.9, FM4.10, FM4.12, FM4.13, FM4.14, FM4.15, FM4.16, FM4.17, FM4.18, FM4.19, FM4.20, FM4.29)</b> <ul style="list-style-type: none"> <li>Ethics related to HIV patients</li> </ul>	K/KH K/KH	5

	<ul style="list-style-type: none"> <li>• Legal and ethical issues in relation to stem cell research</li> <li>• Social aspects of medico-legal cases with respect to victims of assault, rape, attempted suicide, homicide, domestic violence, dowry-related cases</li> <li>• Medico-legal issues in relation to family violence, violation of human rights, NHRC and doctors (non-Core)</li> <li>• Communication between doctors, public and media</li> <li>• Challenges in managing medico-legal cases development of skills in relationship management- Human behaviour, communication skills, conflict resolution techniques</li> <li>• Principles of handling pressure while dealing with medico-legal cases</li> <li>• Bioethics; Ethical principles- Respect for autonomy, non-maleficence, beneficence &amp; justice</li> <li>• Medical Negligence</li> <li>• Consent in Medical Practice</li> <li>• Therapeutic privilege, Professional Secrecy, malingering</li> </ul>	<p>K/KH</p> <p>K/KH</p> <p>A and C/ KH/SH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p> <p>K/KH</p>	
4.	<p><b>Forensic Psychiatry (FM5.3)</b></p> <p><b>Core:</b></p> <ul style="list-style-type: none"> <li>• Civil and criminal responsibilities of a mentally ill person</li> </ul>	<p>K/KH</p>	1

5.	<b>Forensic Laboratory investigation in medico-legal practice</b> (FM6.1, FM6.2, FM6.3) <b>Core:</b> <ul style="list-style-type: none"> <li>• Specimens and tissues (including methods) to be collected in living and dead</li> <li>• Demonstrate professionalism while sending evidences to Forensic Science laboratory</li> </ul>	K/KH  A and C/ KH/SH	1
6.	<b>Emerging technologies in Forensic Medicine</b> (FM7.1) ( <b>non-Core</b> )	K/KH	1
7.	<b>General Toxicology</b> (FM8.7, FM8.9) <b>Core:</b> <ul style="list-style-type: none"> <li>• Bedside tests to detect poison</li> <li>• Medico-legal duties of doctor in suspected cases of poisoning</li> </ul>	K/KH K/KH	1
8.	<b>Chemical Toxicology</b> (FM9.1, FM9.4, FM9.5, FM9.6) <b>Core:</b> General Principles and basic methodologies in treatment of: <ul style="list-style-type: none"> <li>• Corrosives</li> <li>• Alcohol</li> <li>• Agricultural poisons</li> <li>• Asphyxiants</li> </ul>	K/KH K/KH K/KH K/KH	8
9.	<b>Biotoxicology</b> (FM11.1) <b>Core:</b> <ul style="list-style-type: none"> <li>• Features and management of poisoning by animal Irritants</li> </ul>	K/KH	2
10.	<b>Sociomedical Toxicology</b> (FM12.1) <b>Core:</b> <ul style="list-style-type: none"> <li>• Features and management of poisoning with Drugs of Abuse</li> </ul>	K/KH	2

<b>11.</b>	<b>Environmental Toxicology (FM13.1, FM13.2)</b> <b>Core:</b> <ul style="list-style-type: none"> <li>• Medicolegal aspects and toxic hazards of occupation and industry</li> <li>• Workman's Compensation Act</li> </ul>	K/KH  K/KH	1
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<b>Sl. No.</b>	<b>Topic/ System: (With Competency Number) core/ non-core competency</b>	<b>Self-directed learning domain K/S/A Level K/KH</b>	<b>No. of Hours=5</b>
<b>1.</b>	<b>Forensic Pathology</b> <b>Core:</b> FM2.19: Investigation of anaesthetic, operative deaths	K/KH	1
<b>2.</b>	<b>Clinical Forensic Medicine</b> <b>Core:</b> FM3.21: Pre-conception and Pre Natal-Diagnostic Techniques Act (PC&PNDT)- Prohibition of Sex Selection Act 2003 and Domestic Violence Act 2005	K/KH	1
<b>3.</b>	<b>Clinical Forensic Medicine</b> <b>Non-core:</b> FM3.24: Importance of surgical methods of contraception (vasectomy and tubectomy) in the National Family Planning Programme	K/KH	1
<b>4.</b>	<b>Medical Jurisprudence</b> <b>Core:</b> FM4.22, FM4.23: Hippocratic Oath, Charaka and Sushruta Samhita, Procedure for administration of Oath, Modified Declaration of Geneva and its relevance	K/KH	1
<b>5.</b>	<b>Forensic Psychiatry</b> <b>Non-core:</b> FM5.6: Mental health Care act 2017	K/KH	1

## ii) PRACTICAL

Sl. No.	Topic/ System: (With Competency Number) core/ non-core competency	Domain K/S/A Level K/KH/S/SH	No. of hours= 18
1.	FM14.6: Examination of Hair, fibre, semen & other biological fluids FM14.7: Detection of blood in stains FM14.8: Blood grouping	S/KH S/KH S/SH	2
2.	FM14.13: Age estimation in intrauterine period	S/KH	2
3.	FM14.15: Examination of Victim of Sexual Violence	S/KH	2
4.	FM14.14: Examination of Accused of Sexual Violence	S/KH	2
5.	FM14.2, FM14.3: Clinical examination of poisoning cases	S/SH	2
6.	FM14.16: Examination of a case of alcohol consumption	S/KH	2
7.	FM14.17: Toxicology specimens	S/KH	2
8.	FM14.19: Histopathological slides of medico-legal importance	S/KH	2
9.	FM14.10: Photographs and wet specimens	S/KH	2

**Note: Students will be demonstrated the medico-legal autopsies in small groups as and when the cases arrive.**

**iii) CERTIFICATION OF SKILLS:**

**None mentioned in UG curriculum Volume I**

**iii) AETCOM**

Sl. No.	AETCOM Module Number	Lectures [hours]	Small group [hours]	No. of Hours
1.	As allotted			As allotted

#### 4. SCHEME OF EXAMINATION:

##### Eligibility criteria:

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

#### A. FORMATIVE ASSESSMENT

##### THEORY INTERNAL ASSESSMENT:

- A minimum of 2 Internal Assessments (IAs) to be conducted
- One of the internal exams will be conducted like preliminary exams
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Written exams will include MCQ's [MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30% of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

**The distribution of internal assessment marks shall be as mentioned below:**

DEPARTMENT OF FORENSIC MEDICINE						
Integrated phase-wise Internal Assessment						
THEORY		Phase 2		Phase 3-1		Final Total
		IA-1	IA-2	IA-3	IA-4	
Written	Theory <sup>#</sup>	30	25	50	75	
	MCQ	10	10	10	20	
	AETCOM*	--	05	--	05	



FA	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05	05	10	10	
	<b>Logbook</b>	05	05	10	10	
<b>Total</b>		<b>50</b>	<b>50</b>	<b>80</b>	<b>120</b>	<b>300</b>
<b>FINAL THEORY IA MARKS = 100 (final total divided by 3)</b> * To be included as a question in theory paper IA-4 is Preliminary exam						

### **PRACTICAL INTERNAL ASSESSMENT**

- Practical exam shall include exercises that shall be Case scenario based, Skill stations, OSCE stations
- Viva/oral examination shall assess approach to clinical context and included in practical IA marks.

### **PRACTICALS:**

<b>DEPARTMENT OF FORENSIC MEDICINE</b>					
Integrated phase-wise Internal Assessment					
<b>PRACTICAL</b>		<b>Phase 2</b>	<b>Phase 3-1</b>	<b>Final Total</b>	
<b>EOP/ Practical</b>	<b>Practical skills assessment (OSPE/ Other assessment modalities/ AETCOM)</b>	50	80		
	<b>Viva-voce (may include AETCOM)</b>	10	20		
<b>Others</b>	<b>Formative assessment</b>	10	10		
	<b>Logbook/ Record book</b>	10	10		
<b>Total</b>		<b>80</b>	<b>120</b>		<b>200</b>

**FINAL PRACTICAL IA MARKS = 100 (final total divided by 2)**

At least one practical is to be conducted with OSPE as a part of it.

AETCOM may be included as an OSPE station or as a part of viva-voce, if it needs to be assessed in practical (Refer competency booklet & AETCOM module)

\* Only if applicable

**Blue-printing of Internal assessments in Forensic Medicine**

BLUEPRINT	Number of questions			
	IA-1	IA-2*	IA-3	IA-4*
<b>MCQ</b> (1 mark each)	10	10	10	20
<b>Structured Long Essay</b> (10 marks each)	00	00	01	02
<b>Short Essay</b> (5 marks each)	04	04	04	08
<b>Short Answer</b> (2 marks each)	05	05	10	10
<b>Total</b> (In marks)	<b>40</b>	<b>40</b>	<b>60</b>	<b>100</b>
<b>* AETCOM should have a weightage of 5 marks</b>				

**B. SUMMATIVE ASSESSMENT:**

Forensic medicine is learnt and assessed during professional years [PY] 2 and 3 part 1. SA will be held at the end of 3<sup>rd</sup> professional year part 1.

**Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams

- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University as the case may be prior to the declaration of his/her results in that particular phase. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

#### MARKS DISTRIBUTION FOR UNIVERSITY SUMMATIVE EXAMINATION

THEORY		THEORY TOTAL	PRACTICAL		PRACTICAL TOTAL
Written paper	MCQ's		PRACTICAL	VIVA	
80	20	100	80	20	100

Time: 3 hours for theory paper

The pattern of questions in theory paper shall be as mentioned below:

Type of Question	Number of Questions	Maximum Marks for each question	Total
Structured Long essay questions (SLEQ)	2	10	20
Short essay questions (SEQ) (Includes case vignette based questions)	8	05	40
Short answer questions (SAQ)	10	02	20
Multiple Choice Questions (MCQs)	20	01	20
Total marks			100

The question papers shall be based on the blue print of question paper setting.

- Total marks under each type of question from each topic needs to be entered by QP Setter.

- It should be in accordance with Shri Dharmasthala Manjunatheshwara University guidelines.

**Blueprint for the theory examinations (For use by the question paper setter)**

PAPER TOPICS	Weightage of marks as per SDMU guidelines	MCQs 1 mark each	SLEQs 10 marks each	SEQs 5 marks each	SAQs 2 marks each	Total Marks*
Introduction with history of Forensic medicine and Legal Procedure	05					
Death and its causes, Medico-legal autopsy, Postmortem changes, Identification, trace evidence, Bio-medical waste	16					
Mechanical injuries including firearm injuries, transportation injuries, Thermal injuries, Examination of an injured person	16					
Asphyxial deaths, starvation	8					
Impotence, Sterility, Virginity, Pregnancy, delivery, Abortion, Infanticide, Sexual offences	14					
Medical Jurisprudence	11					
Forensic Psychiatry	5					
Toxicology a) Agricultural	20					

poisons b) Corrosive poisons c) Metallic poisons d) Inorganic irritants e) Organic irritants f) CNS depressants g) Psychotropic drugs h) Delirient poisons i) Spinal poisons j) Cardiac poisons k) Asphyxiants l) Drug dependence and abuse m) Food poisoning						
AETCOM	SEQ Case vignette based 5 marks					
TOTAL	100*					

\*Total marks include MCQs.

The weightage of marks allotted for each topic shall be strictly adhered to while setting a question paper. A minimum of 10% and up to a maximum of 30% marks shall be allocated to assess the higher order thinking of the learner.

The questions framed shall be with appropriate verbs without any ambiguity or overlap.

## PRACTICAL SUMMATIVE EXAMINATION: TOTAL 100 MARKS

### Practical Exercises: 80 MARKS

1. Spotters: 20 Marks
2. Age estimation: 20 Marks
3. Certificates: 10 Marks
4. Weapon examination: 10 Marks
5. Bone examination: 10 Marks
6. X-ray examination: 05 Marks
7. Autopsy Questions: 05 Marks

### Practical Viva Voce: 20 MARKS

#### 5. INTEGRATION:

Sl No	Competency No.	Competency to be integrated by nesting/ sharing/ aligning/ correlation	Integrating department	
			Horizontal	Vertical
<b>Topic: Forensic Pathology</b>				
1	FM2.19	Investigation of anaesthetic, operative deaths – Describe and discuss special protocols for conduction of autopsy and for collection, preservation and dispatch of related material evidences	-	Anaesthesiology, General Surgery
2	FM2.27	Define and discuss infanticide, foeticide and stillbirth	-	Paediatrics
3	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	-	Pediatrics, Human Anatomy

		syndrome by proxy		
4	FM2.32	Demonstrate ability to exchange information by verbal, or nonverbal communication to the peers, family members, law enforcing agency and judiciary	-	AETCOM
<b>Topic: Clinical Forensic Medicine</b>				
5	FM3.13	Describe different types of sexual offences. Describe various sections of IPC regarding rape including definition of rape (Section 375 IPC), Punishment for Rape (Section 376 IPC) and recent amendments notified till date	-	Obstetrics & Gynaecology
6	FM3.14	<b>SEXUAL OFFENCES</b> Describe and discuss the examination of the victim of an alleged case of rape, and the preparation of report, framing the opinion and preservation and despatch of trace evidences in such cases	-	Obstetrics & Gynaecology, Psychiatry
7	FM3.15	<b>SEXUAL OFFENCES</b> Describe and discuss examination of accused and victim of sodomy, preparation of report, framing of opinion, preservation and despatch of trace evidences in such cases	-	Obstetrics & Gynaecology, Psychiatry
8	FM3.16	<b>SEXUAL OFFENCES</b> Describe and discuss	-	Obstetrics & Gynaecology,

		adultery and unnatural sexual offences-sodomy, incest, lesbianism, buccal coitus, bestiality, indecent assault and preparation of report, framing the opinion and preservation and despatch of trace evidences in such cases		Psychiatry
9	FM3.17	Describe and discuss the sexual perversions fetishism, transvestism, voyeurism, sadism, necrophagia, masochism, exhibitionism, frotteurism, Necrophilia	-	Obstetrics & Gynaecology, Psychiatry
10	FM3.18	Describe anatomy of male and female genitalia, hymen and its types. Discuss the medico-legal importance of hymen. Define virginity, defloration, legitimacy and its medicolegal importance	-	Obstetrics & Gynaecology
11	FM3.19	Discuss the medicolegal aspects of pregnancy and delivery, signs of pregnancy, precipitate labour superfoetation, superfecundation and signs of recent and remote delivery in living and dead	-	Obstetrics & Gynaecology
12	FM3.20	Discuss disputed paternity and maternity	-	Obstetrics & Gynaecology
13	FM3.21	Discuss Pre-conception and Pre Natal-Diagnostic Techniques	-	Obstetrics & Gynaecology, AETCOM



		(PC&PNDT) - Prohibition of Sex Selection Act 2003 and Domestic Violence Act 2005		
14	FM3.22	Define and discuss impotence, sterility, frigidity, sexual dysfunction, premature ejaculation. Discuss the causes of impotence and sterility in male and female	-	Obstetrics & Gynaecology, General Medicine
15	FM3.23	Discuss Sterilization of male and female, artificial insemination, Test Tube Baby, surrogate mother, hormonal replacement therapy with respect to appropriate national and state laws	-	Obstetrics & Gynaecology
16	FM3.24	Discuss the relative importance of surgical methods of contraception (vasectomy and tubectomy) as methods of contraception in the National Family Planning Programme	-	Obstetrics & Gynaecology
17	FM3.25	Discuss the major results of the National Family Health Survey	-	Obstetrics & Gynaecology
18	FM3.26	Discuss the national Guidelines for accreditation, supervision & regulation of ART Clinics in India	-	Obstetrics & Gynaecology
19	FM3.27	Define, classify and discuss abortion, methods of procuring MTP and criminal abortion and complication of abortion. MTP Act 1971	-	Obstetrics & Gynaecology, AETCOM

20	FM3.28	Describe evidences of abortion - living and dead, duties of doctor in cases of abortion, investigations of death due to criminal abortion	-	Obstetrics & Gynaecology, Pathology
21	FM3.29	Describe and discuss child abuse and battered baby syndrome	-	Pediatrics
<b>Topic: Medical Jurisprudence (Medical Law and Ethics)</b>				
22	FM4.1	Describe Medical Ethics and explain its historical emergence	-	AETCOM
23	FM4.2	Describe the Code of Medical Ethics 2002 conduct, Etiquette and Ethics in medical practice and unethical practices & the dichotomy	-	AETCOM
24	FM4.3	Describe the functions and role of Medical Council of India and State Medical Councils	-	AETCOM
25	FM4.4	Describe the Indian Medical Register	-	AETCOM
26	FM4.5	Rights/privileges of a medical practitioner, penal erasure, infamous conduct, disciplinary Committee, disciplinary procedures, warning notice and penal erasure	-	AETCOM
27	FM4.6	Describe the Laws in Relation to medical practice and the duties of a medical practitioner towards patients and society	-	AETCOM

28	FM4.7	Describe and discuss the ethics related to HIV patients	-	AETCOM
29	FM4.8	Describe the Consumer Protection Act-1986 (Medical Indemnity Insurance, Civil Litigations and Compensations), Workman's Compensation Act & ESI Act	-	AETCOM
30	FM4.9	Describe the medico - legal issues in relation to family violence, violation of human rights, NHRC and doctors	-	AETCOM
31	FM4.10	Describe communication between doctors, public and media	-	AETCOM
32	FM4.11	Describe and discuss euthanasia	-	AETCOM, Pharmacology
33	FM4.12	Discuss legal and ethical issues in relation to stem cell research	-	AETCOM, Pharmacology
34	FM4.13	Describe social aspects of Medico-legal cases with respect to victims of assault, rape, attempted suicide, homicide, domestic violence, dowry- related cases	-	AETCOM
35	FM4.14	Describe & discuss the challenges in managing medico-legal cases including development of skills in relationship management – Human behaviour, communication skills, conflict resolution techniques	-	AETCOM
36	FM4.15	Describe the principles of handling pressure –	-	AETCOM

		definition, types, causes, sources and skills for managing the pressure while dealing with medico-legal cases by the doctor		
37	FM4.16	Describe and discuss Bioethics	-	AETCOM
38	FM4.17	Describe and discuss ethical Principles: Respect for autonomy, nonmaleficence, beneficence & justice	-	AETCOM, Pharmacology
39	FM4.18	Describe and discuss medical negligence including civil and criminal negligence, contributory negligence, corporate negligence, vicarious liability, Res Ipsa Loquitur, prevention of medical negligence and defenses in medical negligence litigations	-	AETCOM
40	FM4.19	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	-	AETCOM
41	FM4.20	Describe therapeutic privilege, Malingering, Therapeutic Misadventure, Professional Secrecy, Human Experimentation	-	AETCOM

42	FM4.21	Describe Products liability and Medical Indemnity Insurance	-	AETCOM
43	FM4.22	Explain Oath – Hippocrates, Charaka and Sushruta and procedure for administration of Oath.	-	AETCOM, Pharmacology
44	FM4.23	Describe the modified Declaration of Geneva and its relevance	-	AETCOM, Pharmacology
45	FM4.24	Enumerate rights, privileges and duties of a Registered Medical Practitioner. Discuss doctor-patient relationship: professional secrecy and privileged communication	-	AETCOM
46	FM4.25	Clinical research & Ethics Discuss human experimentation including clinical trials	-	AETCOM, Pharmacology
47	FM4.26	Discuss the constitution and functions of ethical committees	-	AETCOM, Pharmacology
48	FM4.27	Describe and discuss Ethical Guidelines for Biomedical Research on Human Subjects & Animals	-	AETCOM, Pharmacology
49	FM4.28	Demonstrate respect to laws relating to medical practice and Ethical code of conduct prescribed by Medical Council of India and rules and regulations prescribed by it from time to time	-	AETCOM
50	FM4.29	Demonstrate ability to	-	AETCOM

		communicate appropriately with media, public and doctors		
51	FM4.30	Demonstrate ability to conduct research in pursuance to guidelines or research ethics	-	AETCOM
<b>Topic: Forensic Psychiatry</b>				
52	FM5.1	Classify common mental illnesses including post-traumatic stress disorder (PTSD)	-	Psychiatry
53	FM5.2	Define, classify and describe delusions, hallucinations, illusion, lucid interval and obsessions with exemplification	-	Psychiatry
54	FM5.3	Describe Civil and criminal responsibilities of a mentally ill person	-	Psychiatry
55	FM5.4	Differentiate between true insanity from feigned insanity	-	Psychiatry
56	FM5.5	Describe & discuss Delirium tremens	-	Psychiatry, General Medicine
57	FM5.6	Describe the Indian Mental Health Care Act, 2017 with special reference to admission, care and discharge of a mentally ill person	-	Psychiatry
<b>Topic: Forensic Laboratory investigation in medico-legal practice</b>				
58	FM6.1	Describe different types of specimen and tissues to be collected both in the living and dead: Body fluids (blood, urine, semen, faeces saliva),	-	Pathology

		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		
<b>Topic: General Toxicology</b>				
59	FM8.1	Describe the history of Toxicology	-	Pharmacology
60	FM8.2	Define the terms Toxicology, Forensic Toxicology, Clinical Toxicology and poison	-	Pharmacology
61	FM8.3	Describe the various types of poisons, Toxicokinetics, and Toxicodynamics and diagnosis of poisoning in living and dead	-	Pharmacology
62	FM8.4	Describe the Laws in relations to poisons including NDPS Act, Medico-legal aspects of poisons	-	Pharmacology
63	FM8.5	Describe Medico-legal autopsy in cases of poisoning including preservation and dispatch of viscera for chemical analysis	-	Pharmacology
64	FM8.6	Describe the general symptoms, principles of diagnosis and management of common poisons encountered in India	-	Pharmacology
65	FM8.7	Describe simple Bedside clinic tests to detect poison/drug in a patient's body fluids	-	Pharmacology, General Medicine

66	FM8.8	Describe basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination	-	Pharmacology, General Medicine
<b>Topic: Chemical Toxicology</b>				
67	FM9.1	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to: Caustics Inorganic – sulphuric, nitric, and hydrochloric acids; Organic- Carboloic Acid (phenol), Oxalic and acetylsalicylic acids	-	Pharmacology, General Medicine
68	FM9.2	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Phosphorus, Iodine, Barium	-	Pharmacology, General Medicine
69	FM9.3	Describe General Principles and basic methodologies in treatment of poisoning:	-	Pharmacology, General Medicine



		decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Arsenic, lead, mercury, copper, iron, cadmium and thallium		
70	FM9.4	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Ethanol, methanol, ethylene glycol	-	Pharmacology, General Medicine
71	FM9.5	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Organophosphates, Carbamates, Organochlorines, Pyrethroids, Paraquat, Aluminium and Zinc phosphide	-	Pharmacology, General Medicine
72	FM9.6	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced	-	Pharmacology, General Medicine

		elimination with regard to Ammonia, carbon monoxide, hydrogen cyanide & derivatives, methyl isocyanate, tear (riot control) gases		
<b>Topic: Pharmaceutical Toxicology</b>				
73	FM10.1	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to: i. Antipyretics – Paracetamol, Salicylates ii. Anti-Infectives (Common antibiotics – an overview) iii. Neuropsychotoxicology Barbiturates, benzodiazepins phenytoin, lithium, haloperidol, neuroleptics, tricyclics iv. Narcotic Analgesics, Anaesthetics, and Muscle Relaxants v. Cardiovascular Toxicology Cardiotoxic plants – oleander, odollam, aconite, digitalis vi. Gastro- Intestinal and Endocrinal Drugs – Insulin	-	Pharmacology, General Medicine

<b>Topic: Biotoxicology</b>				
74	FM11.1	Describe features and management of Snake bite, scorpion sting, bee and wasp sting and spider bite	-	General Medicine
<b>Topic: Sociomedical Toxicology</b>				
75	FM12.1	Describe features and management of abuse/poisoning with following chemicals: Tobacco, cannabis, amphetamines, cocaine, hallucinogens, designer drugs & solvent	-	General Medicine
<b>Topic: Environmental Toxicology</b>				
76	FM13.1	Describe toxic pollution of environment, its medico-legal aspects & toxic hazards of occupation and industry	-	General Medicine
<b>Topic: Skills in Forensic Medicine &amp; Toxicology</b>				
77	FM14.2	Demonstrate the correct technique of clinical examination in a suspected case of poisoning & prepare medico-legal report in a simulated/ supervised environment	-	General Medicine
78	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	-	General Medicine

79	FM14.7	Demonstrate & identify that a particular stain is blood and identify the species of its origin	-	Pathology, Physiology
80	FM14.8	Demonstrate the correct technique to perform and identify ABO & RH blood group of a person	-	Pathology, Physiology

## 6. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS

### Text books:

1. K.S. Narayan Reddy, Essentials of Forensic Medicine and Toxicology, Medical Book company, Hyderabad – 34<sup>th</sup> Edition 2017.
2. Modi, Test Book of Forensic Medicine Edited by Justice K Kannan. LexisNexis- 26<sup>th</sup> Edition 2018.
3. V.V. Pillay, Modern Medical Toxicology, Jaypee brothers, 4<sup>th</sup> edition, 2013.
4. J.B. Mukherjee, Forensic Medicine and Toxicology Vol I, II and III, 2<sup>nd</sup> Edition

### Reference books:

1. Bernard Knight, Forensic Pathology, Arnold, 4<sup>th</sup> Edition 2016
2. Gordon and Shapiro, Forensic Medicine, Churchill Livingstone, 3<sup>rd</sup> Edition, 1988.

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## **GENERAL MEDICINE**

### **1. GOAL**

Our goal is to train the learner to perform as a clinician

- who is capable of providing preventive, promotive, curative, palliative and holistic care with compassion to patients having common ailments
- who can lead and function in a health care team efficiently
- who is capable of communicating with patients and their families appropriately
- who is committed to continuous self-improvement in skills and knowledge
- who is a committed, ethical and responsive professional
- who is accountable to patients, community and profession.

### **2. OBJECTIVES:**

#### **2.1 KNOWLEDGE**

The Indian Medical Graduate after his/her training in the department of General Medicine at SDMCMS&H should be able to demonstrate understanding of the patho-physiologic basis, epidemiological profile, signs and symptoms of diseases and their investigation, management, prevention and palliation.

**2.2 SKILLS:** At the end of the course the student should be able to:

1. Competently interview and examine an adult patient and make a clinical diagnosis
2. Appropriately order and interpret laboratory tests
3. Initiate appropriate cost-effective treatment based on an understanding of the rational drug prescriptions, medical interventions required and preventive measures
4. Independently perform common medical procedures safely
5. Document his/her observations accurately
6. Follow up patients with medical problems and refer whenever required
7. Communicate effectively, educate and counsel the patient and family
8. Manage common medical emergencies and refer when required

**2.3 ATTITUDE AND COMMUNICATION SKILLS:** At the end of the course, the learner shall be able to

1. Respect patient's autonomy
2. Do no harm
3. Understand and follow the principle of beneficence
4. Think and act in a just manner
5. Demonstrate empathy
6. Respect privacy
7. Maintain confidentiality
8. Communicate effectively
9. Educate and counsel the patient and family
10. Maintain punctuality
11. Work in a team of peers, seniors and interdepartmental personnel

## 2.4 INTEGRATION

At the end of the course, the learner shall be able to form concepts through aligned and integrated learning experiences in order to provide sound biologic basis incorporating the principles of general medicine into a holistic and comprehensive approach to the care of the patient.

## 3. TEACHING HOURS AND COURSE CONTENT

### C. Teaching Hours

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching	25
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	35
3	Self-directed Learning( SDL)	05
	<b>TOTAL</b>	<b>65</b>

Sl. No	Teaching Learning Method Practicals	No. of weeks
1	Bedside clinics	4
	<b>TOTAL</b>	

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	-
2	Skill Lab	
	<b>TOTAL</b>	

#### D. Course contents

##### ii. THEORY

Sl. No	Topic/ System : (With Competency Number) core/ non-core competency	Large group teaching domain K LEVEL K/KH	No. of Hours=2 5
1	<p><b>Topic: IM 3 pneumonia</b>  <b>Approach to a patient with pneumonia- Definition, types, etiologies, risk factors, pathology and pathogenesis</b>            IM3.1 Define, discuss, describe and distinguish community acquired pneumonia, nosocomial pneumonia and aspiration pneumonia            IM3.2 Discuss and describe the etiologies of various kinds of pneumonia and their microbiology depending on the setting and immune status of the host            IM3.3 Discuss and describe the pathogenesis, presentation, natural history and complications of pneumonia</p>		1

2	<p><b>Approach to a patient with pneumonia- clinical presentation, investigations, management complications and prevention</b></p> <p>IM3.3 Discuss and describe the pathogenesis, presentation, natural history and complications of pneumonia</p> <p>IM3.4 Elicit document and present an appropriate history including the evolution, risk factors including immune status and occupational risk</p> <p>IM3.7 Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum gram stain, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing and ABG</p> <p>IM3.12 Select, describe and prescribe based on the most likely aetiology, an appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum</p> <p>IM3.13 Select, describe and prescribe based on culture and sensitivity appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum</p> <p>IM3.15 Describe and enumerate the indications for hospitalisation in patients with pneumonia</p> <p>IM3.16 Describe and enumerate the indications for isolation and barrier nursing in patients with pneumonia</p> <p>IM3.17 Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and indications for ventilation</p> <p>IM3.19 Discuss, describe, enumerate the indications and communicate to patients on pneumococcal and influenza vaccines</p>	<p>K K Y NESTING- Microbiology ASSESSMENT -Short note/ Viva voce</p>	1
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3	<p>Topic: IM 4 Fever and febrile syndromes  <b>Approach to a patient with fever-  Host – pathogen interaction and Microbial pathogenesis</b>  IM4.1 Describe and discuss the febrile response and the influence of host immune status, risk factors and comorbidities on the febrile response  IM4.2 Describe and discuss the influence of special populations on the febrile response including: the elderly, immune suppression, malignancy and neutropenia, HIV and travel</p>	<p>K K Y Lecture,  Small group discussion  Written Microbiology</p>	1
4	<p><b>PUO – nosocomial, neutropenic, HIV associated and classic – definition , causes, lab diagnosis and treatment.</b>  IM4.8 Discuss and describe the pathophysiology, aetiology and clinical manifestations of fever of unknown origin (FUO) including in a normal host neutropenic host nosocomial host, and a host with HIV  IM4.4 Describe and discuss the pathophysiology and manifestations of inflammatory causes of fever  IM4.5 Describe and discuss the pathophysiology and manifestations of malignant causes of fever including hematologic and lymph node malignancies  IM4.16 Enumerate the indications and describe the findings in tests of inflammation and specific rheumatologic tests, serologic testing for pathogens including HIV, bone marrow aspiration and biopsy  IM4.18 Enumerate the indications for use of imaging in the diagnosis of febrile syndromes  IM4.21 Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost</p>	<p>K K Y Lecture,  Written Microbiology</p>	1

	<p>effective manner</p> <p>IM4.24 Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis</p> <p>IM25.8 Enumerate the indications for use of newer techniques in the diagnosis of these infections</p>		
5	<p><b>Sepsis syndrome</b></p> <p>IM4.7 Discuss and describe the pathophysiology and manifestations of the sepsis syndrome</p> <p>IM4.16 Enumerate the indications and describe the findings in tests of inflammation and specific rheumatologic tests, serologic testing for pathogens including HIV, bone marrow aspiration and biopsy</p> <p>IM4.18 Enumerate the indications for use of imaging in the diagnosis of febrile syndromes</p> <p>IM4.24 Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis</p> <p>IM25.8 Enumerate the indications for use of newer techniques in the diagnosis of these infections</p>	<p>K K Y Lecture, Written Microbiology</p>	1
6	<p>Infections of skin, muscles and soft tissues</p>	<p>K K Y Lecture, Written Microbiology</p>	1
7	<p>Urinary tract infections</p>	<p>K K Y Lecture, Written Microbiology</p>	1
8	<p>Infections acquired in health care facilities and in transplant recipients</p> <p>MI8.5 Define Healthcare Associated Infections (HAI) and enumerate its types. Discuss the factors that contribute to the development of HAI and the methods for prevention</p>	<p>K K Y Lecture, Written Microbiology</p>	1
9	<p><b>Arthropod and rodent borne infections – fever with jaundice, fever with arthritis, fever with encephalitis, [ JE, KFD, dengue, chikungunya, others]</b></p>	<p>K K Y Lecture, Written Microbiology</p>	1

	IM4.3 Discuss and describe the common causes, pathophysiology and manifestations of fever in various regions in India including bacterial, parasitic and viral causes (e.g.Dengue, Chikungunya,Typhus		
10	<b>Arthropod and rodent borne infections – fever with rash, fever with arthritis, fever with hemorrhage [ JE, KFD, dengue, chikungunya, others]</b> IM4.3 Discuss and describe the common causes, pathophysiology and manifestations of fever in various regions in India including bacterial, parasitic and viral causes (e.g.Dengue, Chikungunya,Typhus	K K Y Lecture, Written Microbiology	1
11	<b>Rickettsial diseases</b>	K K Y Lecture, Written Microbiology	1
12	<b>Enteric fever – etiopathogenesis, clinical features and management .</b>	K K Y Lecture, Written Microbiology	1
13	<b>Leptospirosis</b> IM25.1 Describe and discuss the response and the influence of host immune status, risk factors and comorbidities on zoonotic diseases (e.g. Leptospirosis, Rabies) and non-febrile infectious disease (e.g. Tetanus) discussion Community Medicine IM25.2 Discuss and describe the common causes, pathophysiology and manifestations of these diseases IM25.2 Discuss and describe the common causes, pathophysiology and manifestations of these diseases IM25.3 Describe and discuss the pathophysiology and manifestations of these disease IM25.4 Elicit document and present a medical history that helps delineate the aetiology of these	K K Y Lecture, Written Microbiology	1

	<p>diseases that includes the evolution and pattern of symptoms, risk factors, exposure through occupation and travel</p> <p>IM25.5 Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin, mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen)</p> <p>IM25.6 Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes</p> <p>IM25.7 Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, blood biochemistry, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC</p> <p>IM25.8 Enumerate the indications for use of newer techniques in the diagnosis of these infections</p>		
14	<p>TOPIC 6 HIV</p> <p>Define HIV/AIDS, describe etiologic agent, classify by cdc criteria, clinical features, aids defining illnesses, opportunistic infections and malignancies, prevention, laboratory diagnosis and treatment</p> <p>IM6.2 Define and classify HIV AIDS based on the CDC criteria</p> <p>IM6.1 Describe and discuss the symptoms and signs of acute HIV seroconversion</p> <p>IM6.9 Choose and interpret appropriate diagnostic tests to diagnose and classify the severity of HIV-AIDS including specific tests of HIV, CDC</p>	K K Y Lecture, Written Microbiology	1

15	<p>TOPIC 6 HIV</p> <p>Define HIV/AIDS, describe etiologic agent, classify by CDC criteria, clinical features, AIDS defining illnesses, opportunistic infections and malignancies, prevention, laboratory diagnosis and treatment</p> <p>IM6.3 Describe and discuss the relationship between CDC count and the risk of opportunistic infections</p> <p>IM6.4 Describe and discuss the pathogenesis, evolution and clinical features of common HIV related opportunistic infections</p> <p>IM6.5 Describe and discuss the pathogenesis, evolution and clinical features of common HIV related malignancies</p> <p>IM6.6 Describe and discuss the pathogenesis, evolution and clinical features of common HIV related skin and oral lesions</p> <p>IM6.7 Elicit document and present a medical history that helps delineate the aetiology of the current presentation and includes risk factors for HIV, mode of infection, other sexually transmitted diseases, risks for opportunistic infections and nutritional status</p> <p>IM6.8 Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom</p>	K K Y Lecture, Written Microbiology	1
16	<p>Continued-define HIV/AIDS, describe etiologic agent, classify by CDC criteria, clinical features, AIDS defining illnesses, opportunistic infections and malignancies, prevention, laboratory diagnosis and treatment</p> <p>IM6.10 Choose and interpret appropriate diagnostic tests to diagnose opportunistic infections including CBC sputum examination and opportunistic infections including CBC, sputum examination and assessment cultures, blood</p>	K K Y Lecture, Written Microbiology	1

	<p>cultures, stool analysis, CSF analysis and Chest radiographs</p> <p>IM6.11 Enumerate the indications and describe the findings for CT of the chest and brain and MR</p> <p>IM6.12 Enumerate the indications for and interpret the results of: pulse oximetry, ABG, Chest Radiograph</p> <p>IM6.13 Describe and enumerate the indications and side effects of drugs for bacterial, viral and other types of diarrhea</p> <p>IM6.16 Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions</p> <p>IM6.18 Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections</p>		
17	<p>Miscellaneous Infections IM25</p> <p><b>Zoonotic diseases – Rabies, tetanus</b></p> <p>IM25.1 Describe and discuss the response and the influence of host immune status, risk factors and comorbidities on zoonotic diseases (e.g. Leptospirosis, Rabies) and non-febrile infectious disease (e.g. Tetanus) discussion Community Medicine</p> <p>IM25.2 Discuss and describe the common causes, pathophysiology and manifestations of these diseases</p> <p>IM25.3 Describe and discuss the pathophysiology and manifestations of these disease</p> <p>IM25.4 Elicit document and present a medical history that helps delineate the aetiology of these diseases that includes the evolution and pattern of symptoms, risk factors, exposure through occupation and travel</p> <p>IM25.5 Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin, mucosal</p>	<p>K K Y Lecture, Written Microbiology</p>	1

<p>and lymph node examination, chest and abdominal examination (including examination of the liver and spleen)</p> <p>IM25.6 Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes</p> <p>IM25.7 Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, blood biochemistry, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC</p> <p>IM25.8 Enumerate the indications for use of newer techniques in the diagnosis of these infections</p> <p>IM25.10 Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost effective manner</p> <p>IM25.11 Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis</p> <p>IM25.12 Communicate to the patient and family the diagnosis and treatment of identified infection</p> <p>IM25.13 Counsel the patient and family on prevention of various infections due to environmental issues</p>		
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18	<p>Miscellaneous Infections IM25</p> <p><b>Plague, anthrax</b></p> <p>IM25.1 Describe and discuss the response and the influence of host immune status, risk factors and comorbidities on zoonotic diseases (e.g. Leptospirosis, Rabies) and non-febrile infectious disease (e.g. Tetanus) discussion Community Medicine</p> <p>IM25.2 Discuss and describe the common causes, pathophysiology and manifestations of these diseases</p> <p>IM25.3 Describe and discuss the pathophysiology and manifestations of these disease</p> <p>IM25.4 Elicit document and present a medical history that helps delineate the aetiology of these diseases that includes the evolution and pattern of symptoms, risk factors, exposure through occupation and travel</p> <p>IM25.5 Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin, mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen)</p> <p>IM25.6 Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes</p> <p>IM25.7 Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, blood biochemistry, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC</p> <p>IM25.8 Enumerate the indications for use of newer</p>	K K Y Lecture, Written Microbiology	1
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	<p>techniques in the diagnosis of these infections</p> <p>IM25.10 Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost effective manner</p> <p>IM25.11 Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis</p> <p>IM25.12 Communicate to the patient and family the diagnosis and treatment of identified infection</p> <p>IM25.13 Counsel the patient and family on prevention of various infections due to environmental issues</p>		
19	<b>Invasive fungal infections and choice of antifungals</b>		1
20	<p><b>Malaria – etiopathogenesis, clinical features, investigations , complications, treatment and prevention.</b></p> <p>IM 4.6 Discuss and describe the pathophysiology and manifestations of malaria</p> <p>IM4.22 Describe and discuss the pharmacology, indications, adverse reactions, interactions of antimalarial drugs and basis of resistance</p> <p>IM4.23 Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national program</p> <p>IM4.26 Counsel the patient on malarial prevention</p>		1
21	Kala azar		1
22	<p>Headache syndromes</p> <p>Migraine</p> <p>IM17.1 Define and classify headache and describe the presenting features, precipitating factors, aggravating and relieving factors of various kinds of headache</p> <p>IM17.3 Classify migraine and describe the distinguishing features between classical and non</p>		1

	<p>classical forms of migraine</p> <p>IM17.6 Choose and interpret diagnostic testing based on the clinical diagnosis including imaging</p> <p>IM17.10 Enumerate the indications for emergency care admission and immediate supportive care in patients with headache</p> <p>IM17.11 Describe the indications, pharmacology, dose, side effects of abortive therapy in migraine</p> <p>IM17.12 Describe the indications, pharmacology, dose, side effects of prophylactic therapy in migraine</p> <p>IM17.14 Counsel patients with migraine and tension headache on lifestyle changes and need for prophylactic therapy</p>		
23	revision		1
24	revision		1
25	revision		1
			25

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Small group teaching domain K/S/A Level K/KH/S/SH,	No. of Hours=3 5
1	<b>Topic: IM 3 pneumonia</b> <b>Interpretation of investigations in a patient with pneumonia-chest x-ray</b> IM4.18 Enumerate the indications for use of imaging in the diagnosis of febrile syndromes	S SH Y DOAP session Assessment Skill assessment Integration: Radiodiagnosis, Microbiology	2
2	Treatment of malaria IM4.22 Describe and discuss the pharmacology, indications, adverse reactions, interactions of antimalarial drugs and basis of resistance IM4.23 Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national programs IM4.26 Counsel the patient on malarial prevention	S/c SH Y DOAP session Skill assessment	2
3	Management of HIV AIDS IM6.16 Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions IM6.18 Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections IM6.17 Discuss and describe the principles and regimens used in post exposure prophylaxis IM6.20 Communicate diagnosis, treatment plan and subsequent follow up plan to patients IM6.21 Communicate with patients on the importance of medication adherence	K, KH, Y	2
4	<b>emerging infectious diseases- Nipah, Covid, , SARS, MERS, polio, Ebola, Lassa, SFTS, Crimean-congo fever, hanta virus</b>		2

5	Antimicrobial resistance and antibiotic stewardship IM4.24 Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis		2
6	Adult vaccination		2
7	<b>Cestodes – cysticercosis and hydatid disease : etiopathogenesis, clinical features and management</b> <b>Roundworms – filariasis, ascariasis, ankylostoma: etiopathogenesis, clinical features, management.</b>		2
8	SNAKE BITE IM20.1 Enumerate the local poisonous snakes and describe the distinguishing marks of each IM20.3 Describe the initial approach to the stabilisation of the patient who presents with snake bite IM20.4 Elicit and document and present an appropriate history, the circumstance, time, kind of snake, evolution of symptoms in a patient with snake bite IM20.5 Perform a systematic examination, document and present a physical examination that includes general examination, local examination, appropriate cardiac and neurologic examination IM20.6 Choose and interpret the appropriate diagnostic testing in patients with snake bites IM20.7 Enumerate the indications and describe the pharmacology, dose, adverse reactions, hypersensitivity reactions of anti snake venom		2
9	Envenomation due to scorpion, bee, wasp and other other organisms IM20.8 Describe the diagnosis, initial approach stabilisation and therapy of scorpion envenomation IM20.9 Describe the diagnosis initial approach stabilisation and therapy of bee sting allergy		2
10	Topic: Poisoning IM 21 IM21.1 Describe the initial approach to the stabilisation of the patient who presents with		2

	poisoning IM21.4 Enumerate the commonly observed drug overdose in your area and describe their toxicology, clinical features, prognosis and approach to therapy IM21.5 Observe and describe the functions and role of a poison center in suspected poisoning		
11	IM21.2 Enumerate the common plant poisons seen in your area and describe their toxicology, clinical features, prognosis and specific approach to detoxification		2
12	IM21.3 Enumerate the common corrosives used in your area and describe their toxicology, clinical features, prognosis and approach to therapy Rodenticide Poisoning		2
13	OP poisoning, Paraquat and other agricultural poisons		2
14	Toxidromic approach to the management of poisoning		2
15	Envenomation IM20.1 Enumerate the local poisonous snakes and describe the distinguishing marks of each		2
16	Headache syndromes Meningitis IM17.4 Perform and demonstrate a general neurologic examination and a focused examination for signs of intracranial tension including neck signs of meningitis IM17.5 Generate document and present a differential diagnosis based on the clinical features and prioritise the diagnosis based on the presentation. IM17.6 Choose and interpret diagnostic testing based on the clinical diagnosis including imaging IM17.7 Enumerate the indications and describe the findings in the CSF in patients with meningitis IM17.9 Interpret the CSF findings when presented with various parameters of CSF fluid analysis		2

	IM17.13 Describe the pharmacology, dose, adverse reactions and regimens of drugs used in the treatment of bacterial, tubercular and viral meningitis		
17	revision		2
18	revision		1
			35

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Self-directed learning domain K/S/A Level K/KH,	No. of Hours=5
1	Treatment of malaria		1
2	Post exposure prophylaxis in various conditions		1
3	Antibiotic stewardship		1
4	Sepsis management		1
5	Management of snakebite		1
	TOTAL		5

#### iv. PRACTICAL

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Bedside Clinics/DOAP domain K/S/A S/SH,	No. of weeks =4
	<b>1<sup>ST</sup> WEEK</b>		
1	VITAL SIGNS	Bedside Clinics	
2	GPE	Bedside Clinics	
3	RS	Bedside Clinics	
4	RS	Bedside Clinics	
5	RS	Bedside Clinics	
6	RS	Bedside Clinics	
	<b>2<sup>ND</sup> WEEK</b>		
7	DELIBERATE PRACTICE	Bedside Clinics	
8	CVS	Bedside Clinics	
9	CVS	Bedside Clinics	
10	CVS	Bedside Clinics	
11	CVS	Bedside Clinics	
12	DELIBERATE PRACTICE	Bedside Clinics	

	<b>3<sup>RD</sup> WEEK</b>		
<b>13</b>	<p>Fever – history , physical examination , age, comorbidities , drug use , immunizations, diet , ethnicity : consistent approach</p> <p>IM4.9 Elicit document and present a medical history that helps delineate the etiology of fever that includes the evolution and pattern of fever, associated symptoms, immune status, comorbidities, risk factors, exposure through occupation, travel and environment and medication use</p>	<b>Bedside Clinics</b>	
<b>14</b>	<p>Systemic examination – fever with no specific focus, skin findings, soft tissue findings, focal infections and neurologic examinations. Vitals examination with evidence of clinical DIC.</p> <p>IM4.10 Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen)</p>	<b>Bedside Clinics</b>	
<b>15</b>	<p>Differential diagnosis – examination of skin, nails, lymph nodes, eyes, ears, RS, CVS, CNS, PA , genital regions, joints.</p> <p>Temperature recordings in axilla etc, investigations based on history and findings – CBC, smear ,fever profile, sputum analysis, biochemistry, urine, cultures, CXR, USG, stool examination , CSF analysis , pleural fluid and ascetic fluid analysis, decision to treat fever, use of drugs symptomatic, anti-infective agents .</p> <p>IM4.11 Generate a differential diagnosis and prioritize based on clinical features that help distinguish between infective,</p>	<b>Bedside Clinics</b>	

	<p>inflammatory, malignant and rheumatologic causes</p> <p>IM4.12 Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC</p> <p>IM4.21 Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost effective manner</p> <p>IM4.25 Communicate to the patient and family the diagnosis and treatment</p>		
<p><b>16</b></p>	<p>IM20.1 Enumerate the local poisonous snakes and describe the distinguishing marks of each</p> <p>IM20.2 Describe, demonstrate in a volunteer or a mannequin and educate (to other health care workers / patients) the correct initial management of patient with a snake bite in the field</p> <p>IM20.3 Describe the initial approach to the stabilisation of the patient who presents with snake bite</p> <p>IM20.4 Elicit and document and present an appropriate history, the circumstance, time, kind of snake, evolution of symptoms in a patient with snake bite</p> <p>IM20.5 Perform a systematic examination, document and present a physical examination that includes general examination, local examination, appropriate cardiac and neurologic examination</p>	<p><b>DOAP</b></p>	



	<p>IM20.6 Choose and interpret the appropriate diagnostic testing in patients with snake bites</p> <p>IM20.7 Enumerate the indications and describe the pharmacology, dose, adverse reactions, hypersensitivity reactions of anti snake venom</p>		
17	<p>IM6.19 Counsel patients on prevention of HIV transmission</p> <p>IM6.20 Communicate diagnosis, treatment plan and subsequent follow up plan to patient</p> <p>IM6.21 Communicate with patients on the importance of medication adherence</p> <p>IM6.22 Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV</p> <p>IM6.23 Demonstrate a non-judgemental attitude to patients with HIV and to their lifestyles</p>	<p><b>DOAP</b></p> <p><b>INTEGRATION WITH</b></p> <p><b>AETCOM</b></p>	
18	<p><b>DELIBERATE PRACTICE</b></p>	<p><b>Bedside Clinics</b></p>	
	<p><b>4<sup>TH</sup> WEEK</b></p>		
19	<p><b>History taking in a patient with suspected respiratory infection</b></p> <p>IM3.4 Elicit document and present an appropriate history including the evolution, risk factors including immune status and occupational risk</p>	<p><b>Bedside Clinics</b></p>	
20	<p>Examination of a patient with suspected respiratory infection</p> <p>IM3.5 Perform, document and demonstrate a physical examination including general examination and appropriate examination of the lungs that establishes the diagnosis, complications and severity of disease</p>	<p><b>Bedside Clinics</b></p>	

<p><b>21</b></p>	<p><b>Differential diagnosis and management</b>  IM3.6 Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation  IM3.7 Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum gram stain, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing and ABG  IM3.11 . Describe and enumerate the indications for further testing including for further testing including HRCT, Viral cultures, PCR and specialised testing  IM3.12 Select, describe and prescribe based on the most likely aetiology an appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum  IM3.13 Select, describe and prescribe based on culture and sensitivity appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum  IM3.15 Describe and enumerate the indications for hospitalisation in patients with pneumonia  IM3.18 Communicate and counsel patient on family on the diagnosis and therapy of pneumonia  IM3.19 Discuss, describe, enumerate the indications and communicate to patients on pneumococcal and influenza vaccines</p>	<p><b>BEDSIDE CLINICS AND DOAP</b></p>	
<p><b>22</b></p>	<p>IM21.6 Describe the medico legal aspects of suspected suicidal or</p>	<p><b>Bedside Clinics</b></p>	

	<p>homicidal poisoning and demonstrate the correct procedure to write a medico legal report on a suspected poisoning</p> <p>IM21.7 Counsel family members of a patient with suspected poisoning about the clinical and medico legal aspects with empathy</p> <p>IM21.8 Enumerate the indications for psychiatric consultation and describe the precautions to be taken in a patient with suspected suicidal ideation / gesture</p>		
<b>23</b>	<b>DELIBERATE PRACTICE</b>	<b>Bedside Clinics</b>	
<b>24</b>	<b>END OF POSTING EXAMS</b>		

### Skill lab

<b>Comp no.</b>	<b>Competency Description [ P ]</b>	<b>No. required to certify</b>	<b>Duration hours</b>	<b>Number of batches[number of students per batch]</b>
IM3.8	Demonstrate in a mannequin and interpret results of an arterial blood gas examination	-	2	2/50
IM3.9, IM25.9	Demonstrate in a mannequin and interpret results of a pleural fluid aspiration	-	2	2/50
IM3.10	Demonstrate the correct technique in a mannequin and interpret results of a blood culture Assist in the collection of blood and other specimen cultures	-	2	2/50
IM6.15	Demonstrate in a model the correct technique to perform a lumbar puncture	-	2	2/50
<b>Total</b>				

### CERTIFICATION OF SKILLS:

Comp no.	Competency Description [ P ]	Need for Skill lab [yes/no]	No. required to certify	Duration hours	Number of batches[number of students per batch]
	-				
	-				
	-				
	-				
Total					

#### v. AETCOM NIL

Sl. No.	Module Number	Lectures [hours]	Small group [hours]	No. of Hours
	AETCOM			

#### vi. Clinical clerkship plan

	UNIT-I	UNIT-II	UNIT-III	UNIT-IV
MONDAY	10-11 am OPD case presentation 5-6 pm admitted cases presentation in casualty/pre op evaluation presentation	Discharge paper writing	Case sheet writing	Follow up of cases
Tuesday	Post admission rounds presentation/attending Operation Theatre and writing OT notes	10-11 am OPD case presentation  5-6 pm	Discharge paper writing	Case sheet writing

		admitted cases presentation in casualty/pre op evaluation presentation		
Wednesday	Follow up of cases	Post admission rounds presentation/ attending Operation Theatre and writing OT notes	10-11 am OPD case presentation 5-6 pm admitted cases presentation in casualty/pre op evaluation presentation	Discharge paper writing
Thursday	Follow up of cases	Follow up of cases	Post admission rounds presentation/attending Operation Theatre and writing OT notes	10-11 am OPD case presentation 5-6 pm admitted cases presentation in casualty/pre op evaluation presentation
Friday	Case sheet writing	Follow up of cases	Follow up of cases	Post admission rounds presentation /attending Operation

				Theatre and writing OT notes
SATURDAY	Discharge paper writing	Case sheet writing	Follow up of cases	Follow up of cases

#### 4. SCHEME OF EXAMINATION:

##### Eligibility criteria:

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

#### C. FORMATIVE ASSESSMENT

##### THEORY INTERNAL ASSESSMENT:

- A minimum of 2 Internal Assessments (IAs) to be conducted
- One of the internal exams will be conducted like preliminary exams
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]
- Written exams will include MCQ's [MCQs not exceeding 20%] / Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30%of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

<b>DEPARTMENT OF GENERAL MEDICINE</b>									
Integrated phase-wise Internal Assessment									
<b>THEORY</b>		<b>Phase 2</b>		<b>Phase 3-1</b>		<b>Phase 3-2</b>		<b>Final Total</b>	
		<b>IA-1</b>	<b>IA-2</b>	<b>IA-3</b>	<b>IA-4</b>	<b>IA-5</b>	<b>IA-6</b>		
<b>Written</b>	<b>Theory<sup>#</sup></b>	30	25	30	25	75	75		
	<b>MCQ</b>	10	10	10	10	20	20		
	<b>AETCOM*</b>	--	05	--	05	05	05		
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05	05	05	10	10	10		
	<b>Logbook</b>	05	05	05	10	10	10		
<b>Total</b>		<b>50</b>	<b>50</b>	<b>50</b>	<b>60</b>	<b>120</b>	<b>120</b>		<b>450</b>
<p align="center"><b>FINAL THEORY IA MARKS = 150 (final total divided by 3)</b></p> <p align="center">* To be included as a question in theory paper</p> <p align="center"># Pandemic module to be included in theory exam</p> <p align="center">IA-6 is Preliminary exam and hence to be conducted as two theory papers of 100 marks each, and average of both papers is used for tabulation</p>									

<b>DEPARTMENT OF GENERAL MEDICINE</b>						
<b>Integrated phase-wise Internal Assessment</b>						
<b>PRACTICAL</b>		<b>Phase 2</b>	<b>Phase 3-1</b>	<b>Phase 3-2</b>		<b>Final Total</b>
		<b>4 weeks</b>	<b>4 weeks</b>	<b>8 weeks</b>	<b>4 weeks</b>	
		<b>EOP-1</b>	<b>EOP-2</b>	<b>EOP-3</b>	<b>EOP-4</b>	
<b>EOP</b>	<b>Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)</b>	40	40	60	60	
	<b>Viva-voce (may include AETCOM)</b>	10	10	10	10	
<b>Others</b>	<b>Formative assessment including Clinical-Clerkship</b>	05	05	10	10	
	<b>Logbook/ Record book</b>	05	05	10	10	
<b>Total</b>		<b>60</b>	<b>60</b>	<b>90</b>	<b>90</b>	
<p><b>FINAL PRACTICAL IA MARKS = 150 (final total divided by 2)</b>  At least one EOP is to be conducted with OSCE as a part of it  AETCOM may be included as an OSCE station or as a part of Viva-voce during EOP, if it needs to be assessed in practical (Refer competency booklet &amp; AETCOM module)</p>						
<p><b>Preliminary Examinations will include Bedside Clinical Examination which will mirror the Summative University Examinations (Practical)</b>  <b>FINAL PRACTICAL IA MARKS WILL BE AVERAGE OF EOP<sup>#</sup> AND PRELIMINARY EXAM (EQUAL WEIGHTAGE TO BOTH)</b></p>						

### **Blue-printing of Internal assessments in General Medicine**



BLUEPRINT	Number of questions						
	IA-1	IA-2*	IA-3	IA-4*	IA-5*	IA-6 Preliminary Exam*	
						Paper 1	Paper 2
<b>MCQ</b> (1 mark each)	10	10	10	10	20	20	20
<b>Structured Long Essay</b> (10 marks each)	00	00	01	01	02	02	02
<b>Short Essay</b> (5 marks each)	04	04	02	02	08	08	08
<b>Short Answer</b> (2 marks each)	05	05	05	05	10	10	10
<b>Total</b> (in marks)	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>*AETCOM should have a weightage of 5 marks</b>							

### **B. SUMMATIVE ASSESSMENT:**

General medicine is learnt and assessed during professional years [PY] 2 and 3 part 1, 3<sup>rd</sup> part 2. SA will be held at the end of 3<sup>rd</sup> professional year part 2.

#### **Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university exam of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

## 6. INTEGRATION:

Competency list for integration					
SL	Comp No.	Competency to be integrated	nesting/ sharing/ aligning /correlation	Integrating department	
				Horizontal	Vertical
1	IM3.14 IM4.13 IM4.14 IM6.14	Perform and interpret a sputum gram stain and AFB Perform and interpret a sputum gram stain Perform and interpret a sputum AFB Perform and interpret AFB sputum	sharing	Respiratory medicine	Microbiology
2	IM4.20	Interpret a PPD (Mantoux)		Pediatrics Respiratory medicine	Microbiology
3	IM4.15	Perform and interpret a malarial smear			Microbiology
4	IM6.22 IM6.23	Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV Demonstrate a non-judgemental	sharing	AETCOM Respiratory medicine dermatology	

		attitude to patients with HIV and to their lifestyles			
5	IM21.6 IM21.7	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 Counsel family members of a patient with suspected poisoning about the clinical and medico legal aspects with empathy IM21.8 Enumerate the indications for psychiatric consultation and describe the precautions to be taken in a patient with suspected suicidal ideation / gesture		Casualty, psychiatry	Forensic Medicine

## **7. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS**

### **Text Books**

*Note: A single textbook may not cover the entire curriculum. Referring to more than one book is recommended.*

### **Recent editions of:**

Y P Munjal, API Textbook of medicine

Nicki R.C., Brain R.W. Stuart Davidson's Principles & Practice of Medicine,

Maxine A P Current medical diagnosis and treatment

Graham D, Macleod's clinical examination

Bolloor A, Padakanti A- An insider's guide to clinical medicine

K R Sethuraman, objective structured clinical examination

### **Reference books**

Harrison's principles of medicine

David A Warrell Oxford Textbook of Medicine

Goldman and Cecil, Medicine

Wolters Kluver, Interpretation of diagnostic tests

Michael Glyms, Hutchison's clinical methods

Praveen Kumar Michael Clark, Clinical Medicine,

Washington manual of medical therapeutic

### **Journals**

Journal Of Association Of Physicians Of India

**Evidence based medicine source:**

**UPTODATE/BMJ Best practice**

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## **PAEDIATRICS**

### **1. GOAL**

The aim of teaching the undergraduate student is to impart such knowledge, skills and attitude that may enable him/her to prevent, diagnose and treat common childhood illness including neonatal disorders, implement national programs and refer when needed to specialist.

### **2. OBJECTIVES**

#### **2.1 KNOWLEDGE**

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

1. Explain the principles of optimal growth, development and nutrition of child, and adolescents and identify deviation from normal.
2. Enumerate the principle of optimal neonatal care.
3. Describe and analyze the emergency and routine ambulatory and first level referral unit care for neonate, infants, children and adolescents.
4. Enumerate the principles of health promotion and prevention of disease in children
5. Describe the various causes, types and management of children with special needs.
6. Describe the national programs related to child health including integrated management of neonatal & childhood illness IMNCI

#### **2.2 SKILLS**

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

1. Practice principles of paediatrics medicine in hospital and community setting.
2. Interpret the optimal growth, development and nutrition of neonates, children and adolescent and identify deviations from normal.
3. Perform procedure as indicated for children of all ages in the primary care settings.
4. Provide optimal neonatal care at community settings.
5. Demonstration art of communication in regards to child hood illness

#### **2.3 ATTITUDE AND COMMUNICATION SKILLS**

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

At the end of the course, the learner shall be able to

1. Respect patient's autonomy
2. Do no harm
3. Understand and follow the principle of beneficence

4. Think and act in a just manner
5. Demonstrate empathy,
6. Respect privacy
7. Maintain confidentiality
8. Communicate effectively to the child and his/her caretakers
9. Educate and counsel the patient and family,
10. Maintain punctuality
11. Work in a team of peers, seniors and interdepartmental personnel.
12. Evaluate the ethics, scientific procedures, social and legal implications involved in the management of childhood illnesses.

## 2.4 INTEGRATION

The teaching should be aligned and integrated horizontally and vertically in order to provide comprehensive care for neonates, infants, children and adolescents based on a sound knowledge of growth, development, disease and their clinical, social, emotional, psychological correlates in the context of national health priorities.

## 3. TEACHING HOURS AND COURSE CONTENT

### E. Teaching Hours

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching	20
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	30
3	Self-directed Learning( SDL)	05
	<b>TOTAL</b>	<b>55</b>

Sl. No	Teaching Learning Method Practicals	No. of Weeks
1	Bedside clinics	4
	<b>TOTAL</b>	

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	
2	Skill Lab	
	<b>TOTAL</b>	

## F. Course contents

### THEORY

- i. 3 Phase, 1'term : THEORY
- ii. Large Group Teaching : 20 Hrs

Sl. No.	PE	Topic/ System : (With Competency Number) core/ non-core competency	Core	Large group teaching domain K LEVEL K/KH,	No. of Hours=20
1	PE1.1	Define the terminologies Growth and development and discuss the factors affecting normal growth and development	Y	K KH	1 hour (1)
	PE1.2	Discuss and describe the patterns of growth in infants, children and adolescents	Y	K KH	
	PE1.3	Discuss and describe the methods of assessment of growth including use of WHO and Indian national standards. Enumerate the parameters used for assessment of physical growth in infants, children and adolescents	Y	K KH	
	PE1.5	Define development and discuss the normal developmental milestones with respect to motor, behaviour, social, adaptive and language	Y	K KH	1 hour (2)
	PE1.6	Discuss the methods of assessment of development	Y	K KH	
2	PE2.1	Discuss the etio-pathogenesis, clinical features and management of a child who fails to thrive	Y	K KH	1 hour (3)
	PE2.4	Discuss the etio-pathogenesis, clinical features and management of a child with short stature	Y	K KH	
	PE2.6	Enumerate the referral criteria for growth related problems	Y	K K	

		<b>Breast Feeding</b>			
3	PE7.1	Awareness on the cultural beliefs and practices of breast feeding	N	K K	1 hour (4)
	PE7.2	Explain the physiology of lactation	Y	K KH	
	PE7.3	Describe the composition and types of breast milk and discuss the differences between cow's milk and Human milk	Y	K KH	
	PE7.4	Discuss the advantages of breast milk	Y	K KH	
	PE7.6	Enumerate the baby friendly hospital initiatives	Y	K KH	
4		<b>Micronutrients in Health and disease-1 (Vitamins ADEK, B Complex and C)</b>			
	PE12.1	Discuss the RDA, dietary sources of Vitamin A and their role in Health and disease	Y	K K	1 hour (5)
	PE12.2	Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin A	Y	K KH	
	PE12.5	Discuss the Vitamin A prophylaxis program and their recommendations	Y	K K	
	PE12.6	Discuss the RDA, dietary sources of Vitamin D and their role in health and disease	Y	K K	
	PE12.7	Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin D (Rickets and Hypervitaminosis D)	Y	K KH	
	PE12.10	Discuss the role of screening for Vitamin D deficiency	Y	K K	
	PE12.11	Discuss the RDA, dietary sources of Vitamin E and their role in health and disease	N	K K	1 hour (6)
	PE12.12	Describe the causes, clinical features, diagnosis and management of deficiency of	N	K KH	



		Vitamin E			
	PE12.13	Discuss the RDA, dietary sources of Vitamin K and their role in health and disease	N	K K	
	PE12.14	Describe the causes, clinical features, diagnosis management and prevention of deficiency of Vitamin K	N	K KH	
	PE12.15	Discuss the RDA, dietary sources of Vitamin B and their role in health and disease	Y	K K	1 hour (7)
	PE12.16	Describe the causes, clinical features, diagnosis and management of deficiency of B complex Vitamins	Y	K KH	
	PE12.19	Discuss the RDA, dietary sources of Vitamin C and their role in Health and disease	Y	K KH	
	PE12.20	Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin C (scurvy)	Y	K KH	
5		<b>Care of the Normal New born, and High risk New born</b>			
A	PE20.1	Define the common neonatal nomenclatures including the classification and describe the characteristics of a Normal Term Neonate and High Risk Neonates	Y	K KH	1 hour (8)
	PE20.2	Explain the care of a normal neonate	Y	K KH	
B	PE20.7	Discuss the etiology, clinical features and management of Birth asphyxia	Y	K KH	1 hour (9)
C	PE20.8	Discuss the etiology, clinical features and management of respiratory distress in New born including meconium aspiration and transient tachypnoea of newborn	Y	K KH	1 hour (10)

D	PE20.9	Discuss the etiology, clinical features and management of Birth injuries	Y	K KH	1 hour (11)
E	PE20.10	Discuss the etiology, clinical features and management of Hemorrhagic disease of New born	Y	K KH	1 hour (12)
F	PE20.11	Discuss the clinical characteristics, complications and management of Low birth weight (preterm and Small for gestation)	Y	K KH	1 hour (13)
G	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	Y	K KH	1 hour (14)
6		<b>Malabsorption</b>			
	PE25.1	Discuss the etio-pathogenesis, clinical presentation and management of Malabsorption in Children and its causes including celiac disease	N	K KH	1 hour (15)
7		<b>Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Guideline</b>			
	PE16.1	Explain the components of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines and method of Risk stratification	Y	K KH	1 hour (16)
8		<b>The National Health programs, NHM</b>			
	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	Y	K KH	1 hour (17)

9		<b>The National Health Programs: RCH</b>			
	PE18.1	List and explain the components, plan, outcome of Reproductive Child Health (RCH) program and appraise its monitoring and evaluation	Y	K KH	1 hour (18)
	PE18.2	Explain preventive interventions for child survival and safe motherhood	Y	K KH	1 hour (19)
10		<b>Diarrhoeal diseases and Dehydration</b>			
	PE24.6	Discuss the causes, clinical presentation and management of persistent diarrhoea in children	Y	K KH	1 hour (20)
	PE24.7	Discuss the causes, clinical presentation and management of chronic diarrhoea in children	Y	K KH	

### Small Group Teaching ; 30 Hrs

Sl. No.	PE	Topic/ System : (With Competency Number) core/ non-core competency	Core	Small group teaching domain K/S/A Level K/KH/S/SH,	No. of Hours=30
		<b>Complementary Feeding</b>			
1	PE8.1	Define the term Complementary Feeding	Y	K K	1 hour(1)
	PE8.2	Discuss the principles, the initiation, attributes, frequency, techniques and hygiene related to complementary Feeding including IYCF	Y	K KH	
	PE8.3	Enumerate the common complimentary foods	Y	K K	
2		<b>Obesity in children</b>			
	PE11.1	Describe the common etiology,	Y	K KH	1 hour

		clinical features and management of obesity in children			(2)
	PE11.2	Discuss the risk approach for obesity and discuss the prevention strategies	Y	K KH	
	PE11.6	Discuss criteria for referral	Y	K K	
3		<b>Normal nutrition, assessment and monitoring</b>			
	PE9.1	Describe the age related nutritional needs of infants, children and adolescents including micronutrients and vitamins	Y	K KH	1 hour (3)
	PE9.2	Describe the tools and methods for assessment and classification of nutritional status of infants, children and adolescents	Y	K KH	
	PE9.3	Explains the Calorific value of common Indian foods	Y	K KH	
4		<b>Common nutritional problems</b>			
	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)	Y	K KH	1 hour (4)
	PE10.2	Outline the clinical approach to a child with SAM and MAM	Y	K KH	
	PE10.6	Enumerate the role of locally prepared therapeutic diets and ready to use therapeutic diets	N	K K	
5		<b>Micronutrients in Health and disease -2: Iron, Iodine, Calcium, Magnesium</b>			
	PE13.1	Discuss the RDA, dietary sources of Iron and their role in health and disease	Y	K K	1 hour (5)
	PE13.2	Describe the causes, diagnosis and management of Fe deficiency	Y	K KH	

	PE13.6	Discuss the National anaemia control program and its recommendations	Y	K K	
	PE13.7	Discuss the RDA , dietary sources of Iodine and their role in Health and disease	Y	K K	
	PE13.8	Describe the causes, diagnosis and management of deficiency of Iodine	Y	K KH	
	PE13.9	Identify the clinical features of Iodine deficiency disorders	N	S SH	
	PE13.10	Discuss the National Goiter Control program and their recommendations	Y	K K	
	PE13.11	Discuss the RDA, dietary sources of Calcium and their role in health and disease	Y	K K	1 hour (6)
	PE13.12	Describe the causes, clinical features, diagnosis and management of Ca Deficiency	Y	K KH	
	PE13.13	Discuss the RDA, dietary sources of Magnesium and their role in health and disease	N	K K	
	PE13.14	Describe the causes, clinical features, diagnosis and management of Magnesium Deficiency	N	K KH	
6		<b>Fluid and electrolyte balance</b>			
	PE15.1	Discuss the fluid and electrolyte requirement in health and disease	Y	K KH	1 hour (7)
	PE15.2	Discuss the clinical features and complications of fluid and electrolyte imbalance and outline the management	Y	K KH	
	PE15.3	Calculate the fluid and electrolyte requirement in health	Y	S SH	
7		<b>Chromosomal Abnormalities</b>			
	PE32.1	Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Down's Syndrome	Y	K KH	1 hour (8)

	PE32.4	Discuss the referral criteria and Multidisciplinary approach to management	Y	K KH	
	PE32.6	Discuss the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Turner's Syndrome	N	K KH	
	PE32.9	Discuss the referral criteria and multidisciplinary approach to management of Turner Syndrome	N	K KH	
	PE32.11	Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Klinefelter Syndrome	Y	K KH	
8		<b>Care of the Normal New born, and High risk New born</b>			
A	PE20.12	Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypothermia	Y	K KH	1 hour (9)
B	PE20.13	Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypoglycemia	Y	K KH	1 hour (10)
C	PE20.14	Discuss the etiology, clinical features and management of Neonatal hypocalcemia	Y	K KH	1 hour (11)
D	PE20.15	Discuss the etiology, clinical features and management of Neonatal seizures	Y	K KH	1 hour (12)
E	PE20.16	Discuss the etiology, clinical features and management of Neonatal Sepsis	Y	K KH	1 hour (13)

F	PE20.17	Discuss the etiology, clinical features and management of Perinatal infections	Y	K KH	1 hour (14)
G	PE20.19	Discuss the etiology, clinical features and management of Neonatal hyperbilirubinemia	Y	K KH	1 hour (15)
9		<b>Vaccine preventable Diseases - Tuberculosis</b>			
A	PE34.12	Enumerate the indications and discuss the limitations of methods of culturing M. Tuberculi	Y	K KH	1 hour (16)
	PE34.13	Enumerate the newer diagnostic tools for Tuberculosis including BACTEC CBNAAT and their indications	N	K K	
B	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	Y	K KH	1 hour (17)
C	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	Y	K KH	1 hour (18)
D	PE34.19	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of children with	Y	K KH	1 hour (19)

		Common Parasitic infections, malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis, giardiasis			
E	PE34.20	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Rickettsial diseases	Y	K KH	1 hour (20)
F	PE24.8	Discuss the causes, clinical presentation and management of dysentery in children	Y	K KH	1 hour (21)
G	PE34.16	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Diphtheria, Pertussis, Tetanus	Y	K KH	1 hour (21)
H	PE34.17	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Typhoid	Y	K KH	1 hour (22)
10		<b>Common problems related to Development -1 (Developmental delay , Cerebral palsy)</b>			
A	PE3.1	Define, enumerate and discuss the causes of developmental delay and disability including intellectual disability in children	Y	K K	1hour (23)
	PE3.2	Discuss the approach to a child with developmental delay	Y	K K	
B	PE3.8	Discuss the etio-pathogenesis, clinical presentation and multi-disciplinary approach in the management of Cerebral palsy	Y	K KH	1 hour (24)



	PE3.5	Discuss the role of the child developmental unit in management of developmental delay	N	K K	
	PE3.6	Discuss the referral criteria for children with developmental delay	Y	K K	
11		<b>Common problems related to Development-2 (Scholastic backwardness, Learning Disabilities , Autism , ADHD</b>			
A	PE4.1	Discuss the causes and approach to a child with scholastic backwardness	N	K K	1 hour (25)
	PE4.2	Discuss the etiology, clinical features, diagnosis and management of a child with Learning Disabilities	N	K K	
B	PE4.3	Discuss the etiology, clinical features, diagnosis and management of a child with Attention Deficit Hyperactivity Disorder (ADHD)	N	K K	1 hour (26)
C	PE4.4	Discuss the etiology, clinical features, diagnosis and management of a child with Autism	N	K K	1 hour (27)
	PE4.5	Discuss the role of Child Guidance clinic in children with Developmental problems	N	K K	
12		<b>Common problems related to behavior</b>			
A	PE5.1	Describe the clinical features, diagnosis and management of thumb sucking	N	K K	1 hour (28)
	PE5.3	Describe the clinical features, diagnosis and management of nail biting	N	K K	
	PE5.5	Describe the clinical features,	N	K K	

		diagnosis and management of temper tantrums			
	PE5.4	Describe the clinical features, diagnosis and management of Breath Holding spells	N	K K	
B	PE5.6	Describe the clinical features, diagnosis and management of Pica	N	K K	1 hour (29)
	PE5.2	Describe the clinical features, diagnosis and management of Feeding problems	N	K K	
	PE5.10	Discuss the role of child guidance clinic in children with behavioural problems and the referral criteria	N	K K	
C	PE5.8	Discuss the etiology, clinical features and management of Enuresis	N	K K	1 hour (30)
	PE5.9	Discuss the etiology, clinical features and management of Encopresis	N	K K	
	PE5.7	Describe the clinical features, diagnosis and management of Fussy infant	N	K K	
<b>Self Directed Learning (SDL) : 5 Hours</b>					
Sl. No.	PE	Topic/ System : (With Competency Number) core/ non-core competency	Core	Self-directed learning domain K/S/A Level K/KH,	No. of Hours=5
1		<b>National Programs, RCH - Universal Immunizations program</b>			
A	PE19.1	Explain the components of the Universal Immunization Program and	Y	K KH	1 hour (1)

		the National Immunization Program			
	PE19.2	Explain the epidemiology of Vaccine preventable diseases	Y	K KH	
	PE19.3	Vaccine description with regard to classification of vaccines, strain used, dose, route, schedule, risks, benefits and side effects, indications and contraindications	Y	K KH	
B	PE19.4	Define cold chain and discuss the methods of safe storage and handling of vaccines	Y	K KH	1 hour (2)
	PE19.5	Discuss immunization in special situations – HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, travellers	Y	K KH	
	PE19.15	Explain the term implied consent in Immunization services	Y	K K	
	PE19.16	Enumerate available newer vaccines and their indications including pentavalent pneumococcal, rotavirus, JE, typhoid IPV & HPV	N	K K	
2		<b>Diarrhoeal diseases and Dehydration</b>			
A	PE24.1	Discuss the etio-pathogenesis, classification, clinical presentation and management of diarrheal diseases in children	Y	K KH	1 hour (3)
	PE24.2	Discuss the classification and clinical presentation of various types of diarrheal dehydration	Y	K KH	

B	PE24.3	Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS	Y	K KH	1 hour (4)
	PE24.4	Discuss the types of fluid used in Paediatric diarrheal diseases and their composition	Y	K KH	
	PE24.5	Discuss the role of antibiotics, antispasmodics, anti-secretory drugs, probiotics, anti-emetics in acute diarrheal diseases	Y	K KH	
3		<b>Vaccine preventable Diseases - Tuberculosis</b>			
A	PE34.1	Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents	Y	K KH	1 hour (5)
	PE34.2	Discuss the various diagnostic tools for childhood tuberculosis	Y	K KH	
	PE34.3	Discuss the various regimens for management of Tuberculosis as per National Guidelines	Y	K KH	
	PE34.4	Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program	Y	K KH	

### vii. PRACTICAL

Sl No	Comp no PE	Topic/ system	Core	Domain K/S/A Level K/KH,	Bed Side/ DOAP /	Week /hours
1	<b>Adolescent Health &amp; Vitamins AD</b>					
	PE6.9	Perform routine Adolescent Health check up including eliciting history, performing examination including SMR (Sexual Maturity	Y	S SH	Bedside clinics	3 Hours (1)

		Rating), growth assessments (using Growth charts) and systemic exam including thyroid and Breast exam and the HEADSS screening					
	PE12.3	Identify the clinical features of dietary deficiency / excess of Vitamin A	Y	S	SH	Bedside clinics,	
	PE12.4	Diagnose patients with Vitamin A deficiency, classify and plan management	N	S	SH	Bedside clinics, Skill Station	
	PE12.8	Identify the clinical features of dietary deficiency of Vitamin D	Y	S	SH	Bedside clinics, Skills lab	
	PE12.9	Assess patients with Vitamin D deficiency, diagnose, classify and plan management	Y	S	SH	Bedside clinics	
2		<b>Vitamins B complex, C</b>					
	PE12.17	Identify the clinical features of Vitamin B complex deficiency	Y	S	SH	Bedside clinics, Skills lab	3 hour (2)
	PE12.18	Diagnose patients with Vitamin B complex deficiency and plan management	Y	S	SH	Bedside clinics, Skills lab	
	PE12.21	Identify the clinical features of Vitamin C deficiency	Y	S	SH	Bedside clinics,	
3		<b>in Health and disease -2: Iron, Iodine, Electrolytes.</b>					
	PE13.3	Identify the clinical features of dietary deficiency of Iron and make a diagnosis	Y	S	SH	Bedside clinics, Skills lab	3 hour (3)
	PE13.4	Interpret hemogram and Iron Panel	Y	S	SH	Bedside clinic,	

	PE13.5	Propose a management plan for Fe deficiency anaemia	Y	S	SH	Bedside clinics, Skills lab	
	PE15.3	Calculate the fluid and electrolyte requirement in health	Y	S	SH	Bedside clinics, Small group discussion	
	PE15.4	Interpret electrolyte report	Y	S	SH	Bedside clinics, Small group discussion	
	PE15.5	Calculate fluid and electrolyte imbalance	Y	S	SH	Bedside clinics, Small group discussion	
4		Revision class					
		Revision class					3 hours (4)
5		<b>Diarrhoeal diseases and Dehydration</b>					
A	PE24.9	Elicit, document and present history pertaining to diarrheal diseases	Y	S	SH	Bedside clinics, Skills lab	3 hour (5)
	PE24.10	Assess for signs of dehydration, document and present	Y	S	SH	Bedside clinics, Skills lab	
	PE24.11	Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and refer	Y	S	SH	Bedside clinics, Skills lab	

B	PE24.12	Perform and interpret stool examination including Hanging Drop	N	S SH	N	3 hour (6)
	PE24.13	Interpret RFT and electrolyte report	Y	S SH	Y	
	PE24.14	Plan fluid management as per the WHO criteria	Y	S SH	Y	
2						2 week
A		<b>Care of the Normal New born, and High risk New born</b>				
	PE20.4	Assessment of a normal neonate	Y	S SH	Bedside clinics, Skills lab	3 hours (1)
	PE18.6	Perform Postnatal assessment of newborn and mother, provide advice on breast feeding, weaning and on family planning	Y	S SH	Bed side clinics, Skill Lab	
B		<b>Chromosomal Abnormalities</b>				
	PE32.2	Identify the clinical features of Down's Syndrome	Y	S SH	Bedside clinics, Skills lab	3 hours (2)
	PE32.3	Interpret normal Karyotype and recognize Trisomy 21	Y	S SH	Bedside clinics, Skills lab	
	PE32.5	Counsel parents regarding 1. Present child 2. Risk in the next pregnancy	N	A/C SH	Bedside clinics, Skills lab	
	PE32.7	Identify the clinical features of Turner Syndrome	N	S SH	Bedside clinics, Skills lab	
	PE32.8	Interpret normal Karyotype and recognize the Turner Karyotype	N	S SH	Bedside clinics, Skills lab	
	PE32.10	Counsel parents regarding 1. Present child 2. Risk in the next pregnancy	N	A/C SH	Bedside clinics, Skills lab	
C	PE32.12	Identify the clinical features of Klinefelter Syndrome	N	S SH	Bedside clinics,	3

					Skills lab	hours (3)
	PE32.13	Interpret normal Karyotype and recognize the Klinefelter Karyotype	N	S SH	Bedside clinics, Skills lab	
		Revision Class				
D		<b>Vaccine preventable Diseases &amp; Infectious illness</b>				
(1)	PE34.5	Able to elicit, document and present history of contact with tuberculosis in every patient encounter	Y	S SH	Bedside clinics, Skill lab	3 hours (4)
	PE34.6	Identify a BCG scar	Y	S P	Bedside clinics, Skills lab	
	PE34.7	Interpret a Mantoux test	Y	S P	Bedside clinics Skills lab	
(2)	PE34.8	Interpret a Chest Radiograph	Y	S SH	Bedside clinics Skills lab	3 hours (5)
	PE34.9	Interpret blood tests in the context of laboratory evidence for tuberculosis	N	S SH	Bedside clinics, small group	
	PE34.10	Discuss the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum , CSF, FNAC	Y	K KH	Bedside clinics, small group	
E		Mid Posting Exam / revision Class				3 hours (6)



3		<b>Cardiovascular system- Heart Diseases</b>					3 week
A	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	Y	S	SH	Bedside clinics, Skills lab	3 hours (1)
	PE23.8	Identify external markers of a cardiac disease e.g. Cyanosis, Clubbing, dependent edema, dental caries, arthritis, erythema rash, chorea, subcutaneous nodules, Osler's node, Janeway lesions and document	Y	S	SH	Bedside clinics, Skills Lab	
B	PE23.9	Record pulse, blood pressure, temperature and respiratory rate and interpret as per the age	Y	S	SH	Bedside clinics, Skills lab	3 hours (2)
	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	Y	S	SH	Bedside clinics, Skills lab	

		examination and document					
C	PE23.11	Develop a treatment plan and prescribe appropriate drugs including fluids in cardiac diseases, anti -failure drugs, and inotropic agents	Y	S	SH	Bedside clinics, Skills lab	3 hours (3)
	PE23.12	Interpret a chest X ray and recognize Cardiomegaly	Y	S	SH	Bedside clinics, Skills lab	
D	PE23.13	Choose and Interpret blood reports in Cardiac illness	Y	S	P	Bedside clinics, Small group discussion	3 hours (4)
	PE23.14	Interpret Pediatric ECG	Y	S	SH	Bedside clinics, Skills lab	
	PE23.15	Use the ECHO reports in management of cases	Y	S	SH	Bedside clinics	
E		Revision Class					3 hours (5)
F		Revision Class					3 hours (6)
4		<b>Respiratory system</b>					4 week
A	PE28.9	Elicit, document and present age appropriate history of a	Y	S	SH	Bed side	3

		child with upper respiratory problem including Stridor				clinics	hours (1)
	PE28.10	Perform otoscopic examination of the ear	Y	S	SH	DOAP session	
	PE28.11	Perform throat examination using tongue depressor	Y	S	SH	DOAP session	
	PE28.12	Perform examination of the nose	Y	S	SH	DOAP session	
B	PE28.13	Analyse the clinical symptoms and interpret physical findings and make a provisional / differential diagnosis in a child with ENT symptoms	Y	S	SH	Bedside clinics	3 hours (2)
	PE28.14	Develop a treatment plan and document appropriately in a child with upper respiratory symptoms	Y	S	SH	Bedside clinics	
C	PE28.15	Stratify risk in children with stridor using IMNCI guidelines	Y	S	SH	Bedside clinics	3 hours (3)
	PE28.16	Interpret blood tests relevant to upper respiratory problems	N	S	SH	Bedside clinics, Small group discussion	
D	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	Y	S	SH	Bedside clinics, Small group discussion	3 hours (4)

		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	Y	S SH	Bedside clinics, Small group discussion, Lecture	
E	PE28.19	Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of asthma in children	Y	S SH	Bedside clinics, Small group discussion, Lecture	3 hours (5)
	PE28.20	Counsel the child with asthma on the correct use of inhalers in a simulated environment	Y	S SH	Bedside clinics, Small group discussion, Lecture	
F		End Posting Exam				3 hours (6)

**SKILL LAB:**

**PE1.4 Perform anthropometric measurements, document in growth charts and interpret**

**Minimum number required to certify-3\***

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

\*Additional rows have been provided to document repeat or remediation, as the case may be.

\*\*A numerical value may be used.

Only performance is to be documented here. Other details like steps (if required) can be documented in the student record book.

**PE1.7 Perform developmental assessment and interpret**

**Minimum number required to certify-3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE7.5 Observe the correct technique of breast feeding and distinguish right from wrong techniques**

**Minimum number required to certify-3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE11.5 Calculate BMI, document in BMI chart and interpret**

**Minimum number required to certify-3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE19.6 Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule**

**Minimum number required to certify- 5**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE24.15 Perform NG tube insertion in a manikin**

**Minimum number required to certify-2**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE24.16 Perform IV cannulation in a model**

**Minimum number required to certify-2**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>



**PE24.17 Perform interosseous insertion in a model**

**Minimum number required to certify-2**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE27.15 Assess airway and breathing: recognize signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting**

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE27.16 Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment**

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE27.17 Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate**

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE27.18 Assess airway and breathing: perform assisted ventilation by Bag and mask in a simulated environment**

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE27.19 Check for signs of shock i.e., Pulse, Blood Pressure, CRT**

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE27.20 Secure an IV access in a simulated environment**

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PF27.21 Choose the type of fluid and calculate the fluid requirement in shock**

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**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

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE27.23 Assess for signs of severe dehydration**

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE27.28 Provide BLS for children in manikin**

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE33.6 Perform and interpret urine dip stick for sugar**

**Minimum number required to certify- 3**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE33.11 Identify deviations in growth and plan appropriate referral**

**Minimum number required to certify- 2**

<b>Date Completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE 34.6 Identify a BCG scar**

**Minimum number required to certify - 3**

<b>Date completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE34.7 Interpret a Mantoux test**

**Minimum number required to certify- 3**

<b>Date completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>

**PE 34.11 Perform AFB staining**

**Minimum number required to certify –3**

<b>Date completed</b>	<b>Attempt at Competency (F/R/Re)</b>	<b>Rating (B/M/E) **</b>	<b>Decision of Faculty (C/R/Re)</b>	<b>Initial of Faculty &amp; Date</b>	<b>Feedback Received Initial of Learner with Date</b>



**CERTIFIABLE OF SKILLS:**

<b>Number</b>	<b>Competency Details</b>	<b>Number required to Certify P</b>	<b>Date completed</b>	<b>Reference Page no.</b>
PE 1.4	Perform anthropometric measurements, document in growth charts and interpret	3		
PE 1.7	Perform developmental assessment and interpret	3		
PE 7.5	Observe the correct technique of breast feeding and distinguish right from wrong techniques	3		
PE 11.5	Calculate BMI, document in BMI chart and interpret	3		
PE 19.6	Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule	5		
PE 24.15	Perform NG tube insertion in a manikin	2		
PE 24.16	Perform IV cannulation in a model	2		
PE 24.17	Perform interosseous insertion model	2		
PE 27.15	Assess airway and breathing: recognize signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting	3		
PE 27.16	Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment	3		
PE 27.17	Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate	3		

PE 27.18	Assess airway and breathing: perform assisted ventilation by bag and mask in a simulated environment	3		
PE 27.19	Check for signs of shock i.e. pulse, blood pressure, CRT	3		
PE 27.20	Secure an IV access in a simulated environment	3		
PE 27.21	Choose the type of fluid and calculate the fluid requirement in shock	3		
PE 27.22	Assess level of consciousness & provide emergency treatment to a child with convulsions/coma Position an unconscious child Position a child with suspected trauma Administer IV/per rectal Diazepam for a convulsing child in a simulated environment	3		
PE 27.23	Assess for signs of severe dehydration	3		
PE 27.28	Provide BLS for children in manikin	3		
PE 33.6	Perform and interpret urine dip stick for sugar	3		
PE 33.11	Identify deviations in growth and plan appropriate referral	2		
PE 34.6	Identify a BCG scar	3		
PE 34.7	Interpret a Mantoux test	3		
PE 34.11	Perform AFB staining	3		

**viii. AETCOM**

<b>S. No</b>	<b>Competency No.</b>	<b>Competency Detail</b>	<b>Date Completed</b>	<b>Integration</b>	<b>Faculty Signature</b>
1.	PE 2.3	Counselling a parent with failing to thrive child			
2.	PE 3.4	Counsel a parent of a child with developmental delay			

3.	PE 6.8	Respecting patient privacy and maintaining confidentiality while dealing with adolescents.			
4.	PE 7.8	Educate mothers on antenatal breast care and prepare mothers for lactation.			
5.	PE 7.9	Educate and counsel mothers for best practices in breast feeding.			
6.	PE 7.10	Respects patient privacy			
7.	PE 7.11	Participate in Breast Feeding Week celebration			
8.	PE 8.5	Counsel and educate mothers on the best practices in complementary feeding.			
9.	PE 10.5	Counsel parents of children with SAM and MAM.			
10.	PE 19.7	Educate and counsel a patient for immunization.			
11.	PE 19.8	Demonstrate willingness to participate in the national and subnational immunization days			
12.	PE 20.5	Counsel /educate mothers on the care of neonates.			
13.	PE 21.16	Counsel / educate a patient for referral appropriately			
14.	PE 22.2	Counsel a patient with chronic illness			
15.	PE 23.18	Demonstrate empathy			

		while dealing with children with cardiac diseases in every patient encounter.			
16.	PE 26.13	Counsel and educate patients and their family appropriately on liver diseases			
17.	PE 27.32	Counsel parents of dangerously ill / terminally ill child to break bad news			
18.	PE 27.33	Obtain informed consent			
19.	PE 27.34	Willing to be a part of the ER team			
20.	PE 27.35	Attends to emergency calls promptly			
21.	PE 29.19	Counsel and educate patients about prevention and treatment of anemia.			
22.	PE 32.5	Counsel parents regarding 1. Present child Risk in next pregnancy (Down's Syndrome)			
23.	PE 32.10	Counsel parents regarding 1. Present child Risk in next pregnancy (Turner Syndrome)			

## II. COMPETENCIES

### A. COMPETENCIES REQUIRING CERTIFICATION\*

#### Summary of Certifiable competencies

Number	Competency Details	Number required to Certify P	Date completed	Reference Page no.
PE 1.4	Perform anthropometric measurements, document in growth charts and interpret	3		
PE 1.7	Perform developmental assessment and interpret	3		
PE 7.5	Observe the correct technique of breast feeding and distinguish right from wrong techniques	3		
PE 11.5	Calculate BMI, document in BMI chart and interpret	3		
PE 19.6	Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule	5		
PE 24.15	Perform NG tube insertion in a manikin	2		
PE 24.16	Perform IV cannulation in a model	2		
PE 24.17	Perform interosseous insertion model	2		
PE 27.15	Assess airway and breathing: recognize signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting	3		
PE 27.16	Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment	3		
PE 27.17	Assess airway and breathing:	3		

	administer oxygen using correct technique and appropriate flow rate			
PE 27.18	Assess airway and breathing: perform assisted ventilation by bag and mask in a simulated environment	3		
PE 27.19	Check for signs of shock i.e. pulse, blood pressure, CRT	3		
PE 27.20	Secure an IV access in a simulated environment	3		
PE 27.21	Choose the type of fluid and calculate the fluid requirement in shock	3		
PE 27.22	Assess level of consciousness & provide emergency treatment to a child with convulsions/coma Position an unconscious child Position a child with suspected trauma Administer IV/per rectal Diazepam for a convulsing child in a simulated environment	3		
PE 27.23	Assess for signs of severe dehydration	3		
PE 27.28	Provide BLS for children in manikin	3		
PE 33.6	Perform and interpret urine dip stick for sugar	3		
PE 33.11	Identify deviations in growth and plan appropriate referral	2		
PE 34.6	Identify a BCG scar	3		
PE 34.7	Interpret a Mantoux test	3		
PE 34.11	Perform AFB staining	3		

**Summary of Competencies requiring Documentation:**

<b>S. No</b>	<b>Competency No.</b>	<b>Competency Detail</b>	<b>Date Completed</b>	<b>Faculty Signature</b>
1.	PE 9.7	Plan an appropriate diet in health and disease		
2.	PE 10.4	Identify children with under nutrition as per		
3.	PE 11.3	Assessment of a child with obesity with regard to eliciting history including physical activity, charting		
4.	PE 12.3	Identify the clinical features of dietary deficiency / excess of		
5.	PE 12.4	Diagnose patients with Vitamin A deficiency, classify and plan		
6.	PE 12.8	Identify the clinical features of dietary deficiency of Vitamin D		
7.	PE 12.9	Assess patients with Vitamin D deficiency, diagnose, classify and		
8.	PE 12.17	Identify the clinical features of Vitamin B		
9.	PE 12.18	Diagnose patients with Vitamin B complex deficiency and plan		
10.	PE 12.21	Identify the clinical features of Vitamin C		
11.	PE 13.3	Identify the clinical features of dietary deficiency of Iron and		
12.	PE 16.2	Assess children < 2 months using IMNCI		

13.	PE 16.3	Assess children > 2 to 5 years using IMNCI		
14.	PE 18.4	Provide intra-natal care and conduct a normal delivery in a simulated		
15.	PE 18.5	Provide intra-natal care and observe the conduct of a normal		
16.	PE 19.13	Demonstrate the correct administration of different		
17.	PE 20.6	Explain the follow up care for neonates including breast feeding, temperature maintenance, immunization, importance of		
18.	PE20.18	Identify and stratify risk in a sick neonate using IMNCI guidelines		
19.	PE 21.9	Identify external markers for kidney disease, like failing to thrive, hypertension, pallor, ichthyoses,		
20.	PE 21.10	Analyse symptom and interpret the physical findings and arrive at an appropriate provisional/differential		
21.	PE 21.12	Interpret report of Plain X Ray of KUB		
22.	PE 21.13	Enumerate the indications for and interpret the written report of		
23.	PE 21.14	Recognize common surgical conditions of the abdomen and genitourinary system and enumerate the indications for referral including acute and subacute intestinal obstruction, appendicitis, pancreatitis, perforation, intussusception,		



24.	PE 21.15	Discuss and enumerate the referral criteria for children with		
25.	PE 23.11	Develop a treatment plan and prescribe appropriate drugs including fluids in cardiac diseases, anti-failure drugs, and inotropic		
26.	PE23.12	Interpret a chest X ray and recognize cardiomegaly		
27.	PE23.13	Choose and Interpret blood reports in cardiac illness		
28.	PE 23.14	Interpret Pediatric ECG		
29.	PE 23.15	Use the ECHO reports in management of cases		
30.	PE 24.11	Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and		
31.	PE 24.12	Perform and interpret stool examination including hanging		
32.	PE 24.13	Interpret RFT and electrolyte report		
33.	PE 26.10	Demonstrate the technique of liver biopsy & perform liver biopsy in a simulated environment		
34.	PE 27.10	Observe the various methods of		
35.	PE 27.31	Assess child for signs of abuse		
36.	PE 28.15	Stratify risk in children with stridor using		
37.	PE 28.16	Interpret blood tests relevant to upper respiratory		
38.	PE 29.15	Perform and interpret peripheral		

39.	PE 29.17	Demonstrate performance of bone marrow aspiration in manikin		
40.	PE 30.20	Interpret and explain the findings in a CSF		
41.	PE 30.21	Enumerate the indication and discuss the limitations of EEG,		
42.	PE 30.22	Interpret the reports of EEG, CT, MRI		
43.	PE 31.11	Observe administration of		
44.	PE 32.2	Identify the clinical features of Down's		
45.	PE 32.3	Interpret normal karyotype & recognize Trisomy 21		
46.	PE 32.7	Identify the clinical features of Turner		
47.	PE 32.8	Interpret normal karyotype and recognize the Turner karyotype		
48.	PE 32.12	Identify the clinical features of Klinefelter		
49.	PE 32.13	Interpret normal karyotype and recognize the Klinefelter		
50.	PE 33.10	Recognize precocious and delayed puberty and refer		
51.	PE 34.9	Interpret blood tests in the context of laboratory		

#### IV. AFFECTIVE COMPETENCIES REQUIRING DOCUMENTATION

##### Summary of Affective Competencies:

S. No	Competency No.	Competency Detail	Date Completed	Integration	Faculty Signature
1.	PE 2.3	Counselling a parent with failing to thrive child			
2.	PE 3.4	Counsel a parent of a child with developmental delay			
3.	PE 6.8	Respecting patient privacy and maintaining confidentiality while dealing with adolescents.			
4.	PE 7.8	Educate mothers on antenatal breast care and prepare mothers for lactation.			
5.	PE 7.9	Educate and counsel mothers for best practices in breast feeding.			
6.	PE 7.10	Respects patient privacy			
7.	PE 7.11	Participate in Breast Feeding Week celebration			
8.	PE 8.5	Counsel and educate mothers on the best practices in complementary			

		feeding.			
9.	PE 10.5	Counsel parents of children with SAM and MAM.			
10.	PE 19.7	Educate and counsel a patient for immunization.			
11.	PE 19.8	Demonstrate willingness to participate in the national and subnational immunization days			
12.	PE 20.5	Counsel /educate mothers on the care of neonates.			
13.	PE 21.16	Counsel / educate a patient for referral appropriatey			
14.	PE 22.2	Counsel a patient with chronic illness			
15.	PE 23.18	Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter.			
16.	PE 26.13	Counsel and educate patients and their family appropriately on			

		liver diseases			
17.	PE 27.32	Counsel parents of dangerously ill / terminally ill child to break bad news			
18.	PE 27.33	Obtain informed consent			
19.	PE 27.34	Willing to be a part of the ER team			
20.	PE 27.35	Attends to emergency calls promptly			
21.	PE 29.19	Counsel and educate patients about prevention and treatment of anemia.			
22.	PE 32.5	Counsel parents regarding 1. Present child 2. Risk in next pregnancy (Down's Syndrome)			
23.	PE 32.10	Counsel parents regarding 1. Present child 2. Risk in next pregnancy (Turner Syndrome)			

**i. Clinical clerkship plan**

	<b>UNIT-I</b>	<b>UNIT-II</b>	<b>UNIT-III</b>	<b>UNIT - IV</b>
<b>MONDAY</b>	10-11 am OPD case presentation 5-6 pm admitted cases presentation in casualty/Wards	Discharge paper writing	Case sheet writing	Discharge paper writing
<b>Tuesday</b>	Post admission rounds presentation	10-11 am OPD case presentation 5-6 pm admitted cases presentation in casualty /Wards.	Discharge paper writing	10-11 am OPD case presentation 5-6 pm admitted cases presentation in casualty/Wards.
<b>Wednesday</b>	Follow up of cases	Post admission rounds presentation / attending .	10-11 am OPD case presentation 5-6 pm admitted cases presentation in casualty/Wards	Post admission rounds presentation/ attending .
<b>Thursday</b>	Follow up of cases	Follow up of cases	Post admission rounds presentation/atten ding	Follow up of cases
<b>Friday</b>	Case sheet writing	Follow up of cases	Follow up of cases	Follow up of cases
<b>SATURDAY</b>	Discharge paper writing	Case sheet writing	Follow up of cases	Case sheet writing

**Eligibility criteria:**

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

**D. FORMATIVE ASSESSMENT****THEORY INTERNAL ASSESSMENT:**

- A minimum of 2 Internal Assessments (IAs) to be conducted
- One of the internal exams will be conducted like preliminary exams
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Written exams will include MCQ's[MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30%of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

**The distribution of internal assessment marks shall be as mentioned below:**

<b>DEPARTMENT OF PAEDIATRICS</b>						
<b>Integrated phase-wise Internal Assessment</b>						
<b>THEORY</b>		<b>Phase 3-1</b>		<b>Phase 3-2</b>		<b>Final Total</b>
		<b>IA-1</b>	<b>IA-2</b>	<b>IA-3</b>	<b>IA-4</b>	
<b>Written</b>	<b>Theory<sup>#</sup></b>	30	25	50	75	
	<b>MCQ</b>	10	10	10	20	
	<b>AETCOM*</b>	--	05	--	05	
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05	05	10	10	
	<b>Logbook</b>	05	05	10	10	
<b>Total</b>		<b>50</b>	<b>50</b>	<b>80</b>	<b>120</b>	<b>300</b>
<b>FINAL THEORY IA MARKS = 100 (final total divided by 3)</b>						
* To be included as a question in theory paper						



<b>DEPARTMENT OF PAEDIATRICS</b>					
Integrated phase-wise Internal Assessment					
<b>PRACTICAL</b>		<b>Phase 2</b>	<b>Phase 3-1</b>	<b>Phase 3-2</b>	<b>Final Total</b>
		<b>2 weeks</b>	<b>4 weeks</b>	<b>4 weeks</b>	
		<b>EOP-1</b>	<b>EOP-2</b>	<b>EOP-3</b>	
<b>EOP</b>	<b>Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)</b>	40	40	50	
	<b>Viva-voce (may include AETCOM)</b>	10	10	10	
<b>Others</b>	<b>Formative assessment including Clinical-Clerkship</b>	05	05	10	
	<b>Logbook/ Record book</b>	05	05	10	
<b>Total</b>		<b>60</b>	<b>60</b>	<b>80</b>	
<p><b>FINAL PRACTICAL IA MARKS = 100 (final total divided by 2)</b>            At least one EOP is to be conducted with OSCE as a part of it            AETCOM may be included as an OSCE station or as a part of viva-voce during EOP, if it needs to be assessed in practical (Refer competency booklet &amp; AETCOM module)</p>					
<p><b>Preliminary Examinations will include Bedside Clinical Examination which will mirror the Summative University Examinations (Practical)</b>  <b>FINAL PRACTICAL IA MARKS WILL BE AVERAGE OF EOP<sup>#</sup> AND PRELIMINARY EXAM (EQUAL WEIGHTAGE TO BOTH)</b></p>					

## Blue-printing of Internal assessments in Paediatrics

BLUEPRINT	Number of questions			
	IA-1	IA-2*	IA-3	IA-4*
<b>MCQ</b> (1 mark each)	10	10	10	20
<b>Structured Long Essay</b> (10 marks each)	00	00	01	02
<b>Short Essay</b> (5 marks each)	04	04	04	08
<b>Short Answer</b> (2 marks each)	05	05	10	10
<b>Total</b> (in marks)	<b>40</b>	<b>40</b>	<b>60</b>	<b>100</b>
<b>* AETCOM should have a weightage of 5 marks</b>				

### C. SUMMATIVE ASSESSMENT:

Pediatrics is learnt and assessed during professional years [PY] 2 and 3 part 1, 3<sup>rd</sup> part 2. SA will be held at the end of 3<sup>rd</sup> professional year part 2.

#### Pass criteria:

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

## 8. INTEGRATION:

Community Medicine									
CM3.3	Describe the aetiology and basis of water borne diseases /jaundice/hepatitis/diarrheal diseases	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Microbiology, General Medicine, Pediatrics	
CM5.1	Describe the common sources of various nutrients and special nutritional requirements according to age, sex, activity, physiological conditions	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics	
CM5.2	Describe and demonstrate the correct method of performing a nutritional assessment of individuals, families and the community by using the appropriate method	S	SH	Y	DOAP session	Skill Assessment		General Medicine, Pediatrics	
CM5.3	Define and describe common nutrition related health disorders (including macro-PEM,	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics	

	Micro-iron, Zn, iodine, Vit. A), their control and management.							
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	K	KH	Y	Lecture, Small	Written/ Viva		Pediatrics

	importance and methods of food fortification and effects of additives and adulteration				group discussion	voce		
CM6.1	Formulate a research question for a study	K	KH	Y	Small group, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics
CM6.2	Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data	S	SH	Y	Small group discussion, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics
CM6.3	Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs	S	SH	Y	Small group discussion, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics
CM6.4	Enumerate, discuss and demonstrate common sampling techniques, simple	S	SH	Y	Small group discussion, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics

	statistical methods, frequency distribution, measures of central tendency and dispersion								
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	K	KH	Y	Small group discussion, Lecture	Written / Viva voce		General Medicine, Pediatrics	

	community level bearing in mind the public health importance of the disease							
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
CM1 0.1	Describe the current status of Reproductive, maternal, newborn and Child Health	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics
CM1 0.2	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
CM1 0.3	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
CM1 0.4	Describe the reproductive, maternal, newborn & child health (RMCH); child	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics

	survival and safe motherhood interventions								
CM1 0.5	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	
<b>Dermatology, Venereology &amp; Leprosy</b>									
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	
DR5. 3	Enumerate and describe the pharmacology , administration and adverse reaction of pharmacother apies for scabies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Pharmacology
DR6. 1	Describe the etiology, pathogenesis and diagnostic features of pediculosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Microbiology



DR6.2	Identify and differentiate pediculosis from other skin lesions	S	SH	Y	Bedside clinic	Skill assessment		Pediatrics	
DR7.1	Describe the etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of dermatophytes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Microbiology
DR8.1	Describe the etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of common viral infections of the skin	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Microbiology
DR17.1	Enumerate and identify the cutaneous findings in vitamin A deficiency	K/S	SH	Y	Lecture, Small group discussion, Bedside clinic	Skill assessment/ Viva voce		General Medicine, Pediatrics, Biochemistry	
DR17.2	Enumerate and describe the various skin changes in Vitamin B complex deficiency	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics, Biochemistry	
DR17.3	Enumerate and describe the various changes in Vitamin C deficiency	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics, Biochemistry	
DR17.4	Enumerate and describe	K	KH	Y	Lecture, Small	Written/ Viva		General Medicine, Pediatrics	

	the various changes in Zinc deficiency				group discussion	voce		rics, Biochemistr y	
<b>Psychiatry</b>									
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pediatrics	

	simulated environment							
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
<b>General Medicine</b>								
IM23 .1	Discuss and describe the methods of nutritional assessment in an	K	KH	Y	Lecture, Small group discussions	Written/ Viva voce		Physiology, Biochemistry Pediatrics

	adult and calculation of caloric requirements during illnesses								
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
<b>Obstetrics &amp; Gynecology</b>									
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
<b>Physical Medicine &amp; Rehabilitation</b>									
PM3.1	Describe and discuss the clinical features, types, evaluation, diagnosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	Pediatrics

	and management of cerebral palsy							
PM3.2	Recognize, describe and discuss the spectrum of multiple disability : cognitive, motor, visual and hearing in cerebral palsy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics
PM3.3	Recognize, describe and discuss the role of special education in children with learning disabilities	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics
PM3.4	Demonstrate spasticity, rigidity and dystonia in children with cerebral palsy	S	SH	Y	DOAP session, Small group discussion, Bedside clinic	Skill assessment		Pediatrics
PM3.5	Enumerate the indications and describe the therapies for spasticity including medications, serial casts, nerve blocks,	K	KH	Y	Lecture, Small group discussion		Pharmacology	Pediatrics , Orthopedics

	botulinum toxin injections							
PM3.6	Enumerate the indications and describe prevention of joint subluxations and contractures by proper positioning, and use of special chairs, and appliances	K	K H	Y	DOAP session, Small group discussion, Bedside clinic			Pediatrics
PM3.7	Enumerate the first aid measures to be used in patients with seizures	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics
PM4.2	Describe and discuss the principles of management of chronic pain and role of common modalities (moist heat, ultrasound, Short wave diathermy)	K	K H	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics

## **9. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS**

### **Text Books**

#### **Recent Editions:**

1. Ghai Essential Paediatrics CBS publications and distributes PVT Ltd
2. IAP textbook of Paediatrics Jaypee brothers Medical Publishers Related Authors – A Parthasarathy and PSN Menon and MKC Nair
3. Pediatric Clinical methods Meharban Singh, CBS publications and distribution PVT Ltd.
4. PG Text Book of Pediatrics by Piyush Gupta J P Publishers.

#### **Reference books :**

1. Nelson's Text book of paediatrics, 22 Edition 2018. Elsevier
2. Manual of Neonatal care by J. Cloherty, 10th edition 2019. Woltersklower.

#### **Journals :**

1. Paediatrics – American Academy of Paediatrics
2. Archives of Disease of childhood – Royal college of Paediatricians
3. Indian Paediatrics - Indian Academy of Paediatrics
4. Indian Journal of Paediatrics – AIIMS Delhi Paediatrics Department

## **DERMATOLOGY, VENEREOLOGY AND LEPROSY**

### **1. GOAL**

Broad goal of teaching undergraduate medical students in Dermatology, Sexually transmitted infections and Leprosy is to impart such knowledge and skills that may enable him to diagnose and treat common ailment and to refer rare diseases or complications/ unusual manifestations of common diseases, to the specialist.

### **2. OBJECTIVES**

#### **2.1 KNOWLEDGE**

The student shall be able to understand the principles of diagnosis of diseases of the skin, hair, nail and mucosa



## **2.2 SKILLS**

- i. At the end of the postings, the student shall be able to
- ii. Recognize, diagnose, order appropriate investigations and treat common diseases of the skin including leprosy in the primary care setting and refer as appropriate
- iii. Syndromically approach to the recognition, diagnosis, prevention, counseling, testing and management of common sexually transmitted diseases including HIV based on national health priorities.
- iv. Recognize and treat emergencies including drug reactions and refer as appropriate

## **2.3 ATTITUDE AND COMMUNICATION SKILLS**

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

1. Communicate with the patient regarding the course, treatment plan and prognosis of the disease.
2. Motivate patients with chronic diseases to adhere to the line of management as outlined by the health care provider.
3. Follow the treatment guidelines and counsel the patient to adhere and comply.
4. Respect patient's privacy.
5. Maintain confidentiality.
6. Work in a healthcare team efficiently while respecting all its members.
7. Continually strive for updating his/her own knowledge and skill.
8. To treat prolonged illnesses with regular follow-up, monitoring, proper counseling and refer to higher centres if required.

## **2.4 INTEGRATION:**

The knowledge acquired in dermatology should help the students to understand the biologic basis of diseases of the skin, sexually transmitted diseases and leprosy and it provide an understanding that skin diseases may be a manifestation of systemic disease.

### 3. TEACHING HOURS AND COURSE CONTENT

#### G. Teaching Hours

<b>Sl. No</b>	<b>Teaching Learning Method Theory</b>	<b>No. of Hours</b>
1	Large group teaching	20
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	05
3	Self-directed Learning( SDL)	05
	<b>TOTAL</b>	<b>30</b>

<b>Sl. No</b>	<b>Teaching Learning Method Practicals</b>	<b>No. weeks</b>
1	Bedside clinics/practicals	2 weeks
	<b>TOTAL</b>	

<b>Sl. No</b>	<b>Teaching Learning Method</b>	<b>No. of Hours</b>
1	AETCOM	5
2	Skill Lab	
	<b>TOTAL</b>	

## H. Course contents

### iii. THEORY

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Large group teaching domain K LEVEL K/KH,	No. of Hours=20
1.	ACNE DR1.1 Enumerate the causative and risk factors of acne DR1.3 Describe the treatment and preventive measures for various kinds of acne	K	1
2.	VITILIGO DR2.2 Describe the treatment of vitiligo	K	1
3.	LICHEN PLANUS DR4.2 Enumerate and describe the treatment modalities for lichen planus	K	1
4.	FUNGAL INFECTIONS DR7.1 Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of dermatophytes in adults and children(integration with paediatrics and microbiology) DR7.3 Describe the pharmacology and action of antifungal (systemic and topical) agents. Enumerate side effects of antifungal therapy(integration with pharmacology and microbiology)	K	2
5.	VIRAL INFECTIONS DR8.1 Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of common viral infections of the skin in adults and children(integration with paediatrics and microbiology) DR8.7 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies	K	2

	for common viral illnesses of the skin(integration with pharmacology)		
6.	URTICARIA AND ANGIOEDEMA DR14.1 Describe the etiology, pathogenesis and clinical precipitating features and classification of Urticaria and angioedema. Microbiology, Pathology DR14.5 Enumerate the indications and describe the pharmacology indications and adverse reactions of drugs used in the urticarial indications and adverse reactions of drugs used in the Urticaria and angioedema. Pharmacology	K	1
7.	PYODERMA DR15.3 Enumerate the indications and describe the pharmacology, indications and adverse reactions of topical and systemic drugs used in treatment of pyoderma. General Surgery Microbiology, Pharmacology	K	2
8	SYSTEMIC DISEASES AND SKIN DR18.1 Enumerate the cutaneous features of Type 2 diabetes. General Medicine DR18.2 Enumerate the cutaneous features of hypo/hyper-thyroidism. General Medicine	K	2
9.	HUMAN ANATOMY AN4.2 Describe structure & function of skin with its appendages AN4.4 Describe modifications of deep fascia with its functions AN4.5 Explain principles of skin incisions	K	2
10	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	K	2

	PA34.3 Describe the distinguishing features between a nevus and melanoma. Describe the etiology, pathogenesis, risk factors, morphology clinical features and metastases of melanoma		
11	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.	K	2
12	PHARMACOLOGY PH1.46 Describe the mechanisms of action, types, doses, side effects, indications and contraindications of antileprotic drugs. PH1.57 Describe drugs used in skin disorders	K	2

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Small group teaching domain K/S/A Level K/KH/S/SH,	No. of Hours=5
1.	NUTRITIONAL DEFICIENCY AND SKIN DR17.1 Enumerate and identify the cutaneous findings in vitamin A deficiency. General Medicine, Pediatrics, Biochemistry DR17.2 Enumerate and describe the various skin changes in Vitamin B complex .General Medicine, Pediatrics, Biochemistry DR17.3 Enumerate and describe the various changes in Vitamin C deficiency. General Medicine, Pediatrics, Biochemistry	K	1
2.	SCABIES AND PEDICULOSIS DR5.1 Describe the etiology, microbiology,	K	1

	<p>pathogenesis, natural history, clinical features, presentations and complications of scabies in adults and children</p> <p>DR5.3 Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies (integration with paediatrics and pharmacology)</p>		
3.	<p>DERMATITIS AND ECZEMA</p> <p>DR12.1 Describe the aetiopathogenesis of eczema</p> <p>DR12.3 Classify and grade eczema</p> <p>DR12.4 Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the treatment of eczema</p>	K	1
4.	<p>STD</p> <p>DR10.3 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis. General Medicine Pharmacology, Microbiology</p> <p>DR10.4 Describe the prevention of congenital syphilis. General medicine</p> <p>DR10.6 Describe the etiology, diagnostic and clinical features of non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) . General Medicine, Microbiology</p> <p>DR10.8 Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) General Medicine Pharmacology, Microbiology</p> <p>DR10.9 Describe the syndromic approach to ulcerative sexually transmitted disease .</p>	K	2

General Medicine DR10.10 Describe the etiology, diagnostic and clinical features and management of gonococcal and non-gonococcal urethritis. General Medicine		
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<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Self-directed learning domain K/S/A Level K/KH,</b>	<b>No. of Hours=5</b>
1.	PAPULOSQUAMOUS DISORDERS DR.3.3 Treatment of psoriasis including topical, systemic and phototherapy	K	1
2.	HIV DR11.1 Describe the etiology, pathogenesis and clinical features of the dermatologic manifestations of HIV and its complications including opportunistic infections. DR11.3 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for dermatologic lesions in HIV.	K	2
3.	LEPROSY DR9.1 Classify, describe the epidemiology, etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of Leprosy DR9.4 Enumerate, describe and identify lepra reactions and supportive measures and therapy of lepra reactions DR9.5 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines. DR9.6 Describe the treatment of Leprosy	K	2

	based on the WHO guidelines DR9.7 Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma.		
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**ix. PRACTICAL**

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Bedside Clinics/DOAP/field visits domain K/S/A Level K/KH/S/SH,</b>	<b>No. of weeks=2</b>
<b>1</b>	DR9.2 Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination	Bedside Clinics, S, SH	
<b>2</b>	DR9.3 Enumerate the indications and observe the performance of a slit skin smear in patients with leprosy	Bedside Clinics, DOAP session, S, KH	
<b>3</b>	DR11.2 Identify and distinguish the dermatologic manifestations of HIV, its complications, opportunistic infections and adverse reactions	Bedside Clinics, S, SH	
<b>4</b>	DR12.2 Identify eczema and differentiate it from lichenification and changes of aging	Bedside Clinics, S, SH	
<b>5</b>	DR12.5 Define erythroderma. Enumerate and identify the causes of erythroderma. Discuss the treatment	Bedside Clinics, S, KH	
<b>6</b>	DR12.6 Identify and distinguish exfoliative dermatitis from other skin lesions	Bedside Clinics, S, SH	
<b>7</b>	DR12.7 Identify and distinguish	Bedside Clinics, S, SH	



	fixed drug eruptions and Steven Johnson syndrome from other skin lesions		
<b>8</b>	DR13.1 Distinguish bulla from vesicles	Bedside Clinics, S, SH	
<b>9</b>	DR13.2 Demonstrate the Tzanck test, nikolsky sign and bulla spread sign	Bedside Clinics, S, SH	
<b>10</b>	DR13.3 Calculate the body surface area of involvement of vesiculobullous lesions	Bedside Clinics, S, SH	
<b>11</b>	PA34.4 Identify, distinguish and describe common tumors of the skin	DOAP session, S, SH	
<b>12</b>	End posting exam		

**SKILL LAB: NIL**

<b>Comp no.</b>	<b>Competency Description [ P]</b>	<b>No. required to certify</b>	<b>Duration hours</b>	<b>Number of batches[number of students per batch]</b>
<b>Total</b>				

**CERTIFIABLE SKILLS: No certifiable skill for the academic year**

Comp no.	Competency Description [ P]	Need for Skill lab [yes/no]	No. required to certify	Duration hours	Number of batches[number of students per batch]
<b>Total</b>					

**x. AETCOM AND SKILL LAB**

Sl. No.	Module Number	module number	Lectures [hours]	Small group [hours]	No. of Hours
1	AETCOM	3.4 – Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care	3	2	5 hours
	Skill lab				As allotted

## ii. Clinical clerkship plan

	DERMATOLOGY
MONDAY	10-11 am OPD case presentation 5-6 pm admitted cases presentation
Tuesday	10-11 am OPD case presentation Post admission rounds presentation
Wednesday	10-11 am OPD case presentation Follow up of cases
Thursday	10-11 am OPD case presentation Follow up of cases
Friday	10-11 am OPD case presentation Case sheet writing
SATURDAY	Discharge paper writing

## 4. SCHEME OF EXAMINATION:

### Eligibility criteria:

- Eligibility for exams: 80% attendance in theory classes and bedside clinics
- completion of log and record books
- Learners must have completed the required certifiable competencies

**Pass criteria:** obtaining 50% marks in end of posting exams and as an allied subject of medicine in general medicine theory exams

- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university exam.
- Internal assessment will appear as a separate head of passing at summative exams

- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University as the case may be. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

## **E. FORMATIVE ASSESSMENT**

### **THEORY INTERNAL ASSESSMENT:**

- As a part of General Medicine Internal Assessments (IAs)
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]
- Written exams will include MCQ's[MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30%of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

### **PRACTICAL INTERNAL ASSESSMENT**

- Clinical end posting exams [EOP] will be conducted
- Viva/oral examination should assess approach to clinical context and included in practical IA marks.

<b>DEPARTMENT OF DERMATOLOGY, VENEREOLOGY &amp; LEPROSY</b>				
Integrated phase-wise Internal Assessment				
<b>THEORY</b>		<b>Phase 3-1</b>		<b>Final Total</b>
		<b>IA-1</b>	<b>IA-2</b>	
<b>Written</b>	<b>Theory<sup>#</sup></b>	20	30	
	<b>MCQ</b>	10	10	
	<b>AETCOM*</b>	--	--	
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05	05	
	<b>Logbook</b>	05	05	
<b>Total</b>		<b>40</b>	<b>50</b>	<b>90</b>
<b>FINAL THEORY IA MARKS = 15 (final total divided by 6)</b>				
* To be included as a question in theory paper				

<b>DEPARTMENT OF DERMATOLOGY, VENEREOLOGY &amp; LEPROSY</b>					
Integrated phase-wise Internal Assessment					
<b>PRACTICAL</b>		<b>Phase 2 2wk posting</b>	<b>Phase 3-1 2wk posting</b>	<b>Phase 3-2 2wk posting</b>	<b>Final Total</b>
<b>EOP</b>	<b>Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)</b>	15	15	20	
	<b>Viva-voce (may include AETCOM)</b>	10	10	10	
<b>Others</b>	<b>Formative assessment</b>	05	--	05	
	<b>Logbook/ Record book</b>	--	05	05	

<b>Total</b>	<b>30</b>	<b>30</b>	<b>40</b>	<b>100</b>
<p align="center"><b>FINAL PRACTICAL IA MARKS = 20 (final total divided by 5)</b></p> <p align="center">At least one EOP is to be conducted with OSCE as a part of it.</p> <p align="center">AETCOM may be included as an OSCE station or as a part of viva-voce during EOP, if it needs to be assessed in practical (Refer competency booklet &amp; AETCOM module)</p>				

### **Blue-printing of Internal assessments in Dermatology, Venereology & Leprosy**

<b>BLUEPRINT</b>	<b>Number of questions</b>	
	<b>IA-1*</b>	<b>IA-2</b>
<b>MCQ</b> (1 mark each)	10	10
<b>Structured Long Essay</b> (10 marks each)	00	00
<b>Short Essay</b> (5 marks each)	02	04
<b>Short Answer</b> (2 marks each)	05	05
<b>Total</b> (in marks)	<b>30</b>	<b>40</b>
<b>* AETCOM should have a weightage of 5 marks</b>		

### **B. SUMMATIVE ASSESSMENT:**

Dermatology, Venereology And Leprosy is learnt and assessed during professional years [PY] 2 and 3 part 1. Summative assessment will be held at the end of 3<sup>rd</sup> professional year part 2 as a part of general medicine theory papers as Dermatology, Venereology And Leprosy is an allied subject of general medicine.

#### **Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in general medicine theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) in general medicine to pass

## 5. INTEGRATION:

<b>Competency list for integration</b>					
<b>SL</b>	<b>Comp No.</b>	<b>Competency to be integrated</b>	<b>nesting/ sharing/ aligning /correlation</b>	<b>Integrating department</b>	
				<b>Horizontal</b>	<b>Vertical</b>
1	DR5.1	Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies in adults and children			Paediatrics
2	DR5.2	Identify and differentiate scabies from other lesions in adults and children			Paediatrics
3	DR5.3	Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies		Pharmacology	Paediatrics
4	DR6.1	Describe the etiology pathogenesis and diagnostic features of pediculosis in adults and children		Microbiology	Paediatrics
5	DR6.2	Identify and differentiate pediculosis from other skin lesions in adults and children			Paediatrics

6	DR 7.1	Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of dermatophytes in adults and children		Microbiology	Paediatrics
7	DR7.2	Identify Candida species in fungal scrapings and KOH mount		Microbiology	
8	DR 7.3	Describe the pharmacology and action of antifungal (systemic and topical) agents. Enumerate side effects of antifungal therapy		Microbiology Pharmacology	
9	DR 8.1	Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of common viral infections of the skin in adults and children		Microbiology	Paediatrics
10	DR 8.7	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for common viral illnesses of the skin		Pharmacology	
11	DR 9.1	Classify, describe the epidemiology, etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of Leprosy		Microbiology Community Medicine	General Medicine



12	DR9.2	Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination			General Medicine
13	DR9.4	Enumerate, describe and identify lepra reactions and supportive measures and therapy of lepra reactions		Pharmacology	General Medicine
14	DR9.5	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines.		Pharmacology Community Medicine	General Medicine
15	DR9.6	Describe the treatment of Leprosy based on the WHO guidelines		Pharmacology Community Medicine	General Medicine
16	DR9.7	Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma.		Pharmacology Psychiatry	General Medicine
17	DR10.1	Identify and classify syphilis based on the presentation and clinical manifestations		Microbiology	General Medicine
18	DR10.2	Identify spirochete in a dark ground microscopy		Microbiology	
19	DR10.3	Enumerate the indications and describe the pharmacology, administration and adverse reaction of		Microbiology Pharmacology	General Medicine

		pharmacotherapies for syphilis.			
20	DR10.4	Describe the prevention of congenital syphilis.			General Medicine
21	DR10.5	Counsel in a non-judgemental and empathetic manner patients on prevention of sexually transmitted disease			General Medicine
22	DR10.6	Describe the etiology, diagnostic and clinical features of non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)		Microbiology	General Medicine
23	DR10.7	Identify and differentiate based on the clinical features non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)		Microbiology	General Medicine
24	DR10.8	Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)		Microbiology Pharmacology	General Medicine
25	DR10.9	Describe the syndromic approach to ulcerative sexually transmitted disease			General Medicine
26	DR10.10	Describe the etiology, diagnostic and clinical features and management of gonococcal and non-			General Medicine

		gonococcal urethritis.			
27	DR10.1 1	Describe the etiology, diagnostic and clinical features and management of vaginal discharge.			Obstetrics & Gynecology
28	DR11.1	Describe the etiology, pathogenesis and clinical manifestations of HIV and its complications including opportunistic infections.		Microbiology	General Medicine
29	DR11.2	Identify and distinguish the dermatologic manifestations of HIV, its complications, opportunistic infections and adverse reactions		Microbiology	General Medicine
30	DR11.3	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for dermatologic lesions in HIV		Microbiology Pharmacology	General Medicine
31	DR 12.7	Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions		Pathology Microbiology	General Medicine
32	DR14.1	Describe the etiology, pathogenesis and clinical precipitating features and classification of Urticaria and angioedema		Microbiology Pathology	
33	DR14.5	Enumerate the indications and describe the pharmacology indications and adverse reactions of		Pharmacology	

		drugs used in the urticarial indications and adverse reactions of drugs used in the Urticaria and angioedema.			
34	DR15.2	Identify staphylococcus on a gram stain		Microbiology	
35	DR15.3	Enumerate the indications and describe the pharmacology, indications and adverse reactions of topical and systemic drugs used in treatment of pyoderma		Microbiology Pharmacology	General surgery
36	DR15.4	Enumerate the indications for surgical referral			General surgery
37	DR16.1	Identify and distinguish skin lesions of SLE		Pathology	General Medicine
38	DR16.2	Identify and distinguish Raynaud's phenomenon		Pathology	General Medicine
39	DR17.1	Enumerate and identify the cutaneous findings in vitamin A deficiency			General Medicine Paediatrics Biochemistry
40	DR17.2	Enumerate and describe the various skin changes in Vitamin B complex .			General Medicine Paediatrics Biochemistry
41	DR17.3	Enumerate and describe the various changes in Vitamin C deficiency.			General Medicine Paediatrics Biochemistry
42	DR17.4	Enumerate and describe the various changes in Zinc deficiency			General Medicine Paediatrics Biochemistry
43	DR18.1	Enumerate the cutaneous			General

		features of Type 2 diabetes.			Medicine
44	DR18.2	Enumerate the cutaneous features of hypo/hyper-thyroidism.			General Medicine

### **RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS**

1. Skin disease and STI's –Uday Khopkar -7th edition
2. Skin disease diagnosis and treatment –Habif -2nd edition
3. Common skin disease –Roxburgh's -17th edition
4. Andrew's diseases of the skin ,clinical dermatology -13th edition
5. Handbook of leprosy –WH Jopling and C Mcdougall -5th edition
6. Illustrated synopsis of dermatology and STD – Neena khanna – 6th edition
7. Concise textbook of Dermat ology by IADVL for UGs – 2nd edition
8. Fitzpatrick's color atlas and synopsis of clinical dermatology -8th edition
9. Textbook of Dermatology ,Venerology and Leprosy – DM Thappa – 4th edition
10. Illustrated text book of dermatology –JS Pasricha and Ramji gupta – 4th edition
11. Text book of clinical dermatology – Virendra N Sehgal – 5th edition
12. An introduction to Dermatology ,STD and Leprosy-AK Bajaj and Rajeev sharma – 1st edition

## **Reference Books**

1. Rook's text book of Dermatology – 9th edition
2. Fitzpatrick's Dermatology -9th edition
3. Textbook of Dermatology – Jean L Bologna -4th edition
4. Andrew's diseases of skin – 12th edition
5. IADVL Textbook of Dermatology -4th edition
6. IAL Textbook of Leprosy -2nd edition
7. Sexually Transmitted Diseases – King K Homes – 4th edition

## RESPIRATORY MEDICINE

1. **GOAL:** Our department intends to train the MBBS students to be competent in diagnosis and management of obstructive airway disease and Tuberculosis.

### 2. OBJECTIVES

#### 2.1 KNOWLEDGE

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

- i. Define, discuss and approach respiratory symptoms like cough, shortness of breath, haemoptysis and generate differential diagnosis based on the clinical history.
- ii. Describe, select, and interpret diagnostic tests based on the clinical presentation.
- iii. Discuss the epidemiology, clinical manifestations, diagnosis and management of tuberculosis.
- iv. Describe and discuss the epidemiology, the predisposing factors and therapeutic factors that determine resistance to drugs.
- v. Discuss the pharmacology, contraindications, interactions and adverse reactions of anti-tubercular drugs.
- vi. Define, classify and discuss the epidemiology, clinical manifestations, diagnosis and management of obstructive airway disease.
- vii. Differentiate between asthma and COPD; describe the severity and risk factors associated with exacerbation of obstructive airway disease.
- viii. Discuss and describe the impact of OAD on the society and workplace preventive measures to reduce OAD in workplaces.

#### 2.2 SKILLS

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

- i. Elicit, document and present an appropriate medical history that includes respiratory symptoms, risk factors.
- ii. Demonstrate and perform a systematic examination that establishes the diagnosis based on the clinical presentation that includes general and systemic examination.
- iii. Perform and interpret important diagnostic tests like AFB smear, pulmonary function test, peak expiratory flow rate, CXR, mantoux test.
- iv. Demonstrate and counsel patient on the correct use of inhalers.

## 2.3 ATTITUDE AND COMMUNICATION SKILLS

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

- i. Counsel patients appropriately on smoking cessation, compliance with medications and the correct use of inhalers
- ii. Communicate diagnosis, treatment plan and subsequent follow up plan to patients

## 5.4 INTEGRATION:

The teaching should be aligned and integrated horizontally and vertically in order to allow the students to recognize, diagnose and treat TB in the context of society, national health priorities, drug resistance and comorbid conditions like HIV.

## 6. TEACHING HOURS AND COURSE CONTENT

### A. Teaching Hours

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching	10
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	08
3	Self-directed Learning( SDL)	02
	TOTAL	20

Sl. No	Teaching Learning Method Practicals	No. of weeks
1	Bedside clinics/practicals/autopsies	nil
	TOTAL	

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	
2	Skill Lab	
	TOTAL	



B. Course contents

iv. THEORY

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Large group teaching domain K LEVEL K/KH,	No. of Hours=10
1	<p>CT1.1 Describe and discuss the epidemiology of tuberculosis and its impact on the work, life and economy of India</p> <p>CT1.2 Describe and discuss the microbiology of tubercle bacillus, mode of transmission, pathogenesis, clinical evolution and natural history of pulmonary and extra pulmonary forms (including lymph node, bone and CNS)</p> <p>CT1.3 Discuss and describe the impact of co-infection with HIV and other co-morbid conditions. Like diabetes on the natural history of tuberculosis</p> <p>CT1.12 Enumerate the indications for tests including: serology, special cultures and polymerase chain reaction and sensitivity testing</p>	<p>KH</p> <p>KH</p> <p>K</p> <p>KH</p>	1
2	<p>CT1.14 Describe and discuss the pharmacology of various anti-tuberculous agents, their indications, contraindications, interactions and adverse reactions</p> <p>CT1.15 Prescribe an appropriate antituberculosis regimen based on the location of disease, smear positivity and negativity and comorbidities based on current national guidelines including directly observed tuberculosis therapy (DOTS)</p>	<p>KH</p> <p>SH</p>	1
3	<p>CT1.4 Describe the epidemiology, the predisposing factors and microbial and therapeutic factors that determine resistance to drugs</p> <p>Define criteria for the cure of Tuberculosis;</p>	<p>KH</p>	1

	describe and recognize the features of drug resistant tuberculosis, prevention and therapeutic regimens		
4	CT1.2 Describe and discuss the microbiology of tubercle bacillus, mode of transmission, pathogenesis, clinical evolution and natural history of pulmonary and extra pulmonary forms (including lymph node, bone and CNS)	KH	1
5	CT1.14 Describe and discuss the pharmacology of various anti-tuberculous agents, their indications, contraindications, interactions and adverse reactions	KH	1
6	CT2.1 Define and classify obstructive airway disease CT2.2 Describe and discuss the epidemiology, risk factors and evolution of obstructive airway disease CT2.5 Describe and discuss the genetics of alpha 1 antitrypsin deficiency in emphysema	KH KH KH	1
7	CT2.6 Describe the role of the environment in the cause and exacerbation of obstructive airway disease CT2.7 Describe and discuss allergic and non-allergic precipitants of obstructive airway disease	KH KH	1
8	CT2.16 Discuss and describe therapies for OAD including bronchodilators, leukotriene inhibitors, mast cell stabilisers, theophylline, inhaled and systemic steroids, oxygen and immunotherapy CT2.17 Describe and discuss the indications for vaccinations in OAD	KH KH	1
9	CT2.3 Enumerate and describe the causes of acute episodes in patients with obstructive airway disease CT2.6 Describe the role of the environment in the cause and exacerbation of obstructive	KH KH KH	1

	airway disease CT2.20 Describe and discuss the principles and use of oxygen therapy in the hospital and at home		
10	CT2.4 Describe and discuss the physiology and pathophysiology of hypoxia and hypercapnea	KH	1

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Small group teaching domain K/S/A Level K/KH/S/SH</b>	<b>No. of Hours=8</b>
1	CT1.15 Prescribe an appropriate antituberculosis regimen based on the location of disease, smear positivity and negativity and comorbidities based on current national guidelines including directly observed tuberculosis therapy (DOTS)	SH	1
2	CT1.3 Discuss and describe the impact of co-infection with HIV and other co-morbid conditions. Like diabetes on the natural history of tuberculosis	K	1
3	CT1.13 Describe and discuss the origin, indications, technique of administration, efficacy and complications of the BCG vaccine	KH	1

4	CT1.16 Describe the appropriate precautions, screening, testing and indications for chemoprophylaxis for contacts and exposed health care workers	KH	1
5	CT2.13 Describe the appropriate diagnostic work up based on the presumed aetiology	SH	1
6	CT2.18 Develop a therapeutic plan including use of bronchodilators and inhaled corticosteroids	SH	1
7	CT2.14 Enumerate the indications for and interpret the results of : pulse oximetry, ABG, Chest Radiograph CT2.20 Describe and discuss the principles and use of oxygen therapy in the hospital and at home	SH KH	1
8	CT2.28 Demonstrate an understanding for the difficulties faced by patients during smoking cessation	KH	1

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Self-directed learning domain K/S/A Level K/KH,</b>	<b>No. of Hours= 2</b>
1.	CT2.14 Enumerate the indications for and interpret the results of : pulse oximetry, ABG, Chest Radiograph CT2.28 Demonstrate an understanding for the difficulties faced by patients during smoking cessation	SH KH	2

**xi. PRACTICAL/BEDSIDE CLINICS**

Nil for 3<sup>rd</sup> professional year part 1

Skill lab nil for 3<sup>rd</sup> professional year part 1

**xii. AETCOM**

Sl. No.	Module Number	Module number	Lectures [hours]	Small group [hours]	No. of Hours
1.	AETCOM	Module 3.4- Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care.	2	3	5

**7. SCHEME OF EXAMINATION:**

Eligibility criteria:

- Eligibility for exams: 80% attendance in theory classes and bedside clinics
- Completion of log and record books
- Learners must have completed the required certifiable competencies

Pass criteria: Obtaining 50% marks in end of posting exams and as an allied subject of medicine in general medicine theory exams

- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university exam.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

## A. FORMATIVE ASSESSMENT

### THEORY INTERNAL ASSESSMENT:

- As a part of General Medicine Internal Assessments (IAs)
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]
- Written exams will include MCQ's[MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30% of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

### PRACTICAL INTERNAL ASSESSMENT

- Clinical end posting exams [EOP] was conducted including Viva/oral examination in 2<sup>nd</sup> professional year

<b>DEPARTMENT OF RESPIRATORY MEDICINE &amp; TUBERCULOSIS</b>				
<b>Integrated phase-wise Internal Assessment</b>				
<b>THEORY</b>		<b>Phase 3-1</b>	<b>Final Total</b>	
Written	Theory <sup>#</sup>	45		
	MCQ	20		
	AETCOM*	05		
FA	Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments	10		
	Logbook	10		
Total		90		90
FINAL THEORY IA MARKS = 15 (final total divided by 6)				
* To be included as a question in theory paper				

<b>DEPARTMENT OF RESPIRATORY MEDICINE &amp; TUBERCULOSIS</b>			
<b>Integrated phase-wise Internal Assessment</b>			
<b>PRACTICAL</b>		<b>Phase 2 2wk posting</b>	<b>Final Total</b>
<b>EOP</b>	Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)	30	
	Viva-voce (may include AETCOM)	10	
<b>Others</b>	Formative assessment	05	
	Logbook/ Record book	05	
<b>Total</b>		<b>50</b>	<b>50</b>
<p>FINAL PRACTICAL IA MARKS = 10 (final total divided by 5)            At least one EOP is to be conducted with OSCE as a part of it.            AETCOM may be included as an OSCE station or as a part of viva-voce during            EOP, if it needs to be assessed in practical (Refer competency booklet &amp;            AETCOM module)</p>			

#### Blue-printing of Internal assessments in Respiratory Medicine & Tuberculosis

<b>BLUEPRINT</b>	<b>Number of questions</b>
	<b>IA-1</b>
MCQ (1 mark each)	20
Structured Long Essay (10 marks each)	01
Short Essay (5 marks each)	08
Short Answer (2 marks each)	10
<b>Total (in marks)</b>	<b>90</b>
<b>* AETCOM should have a weightage of 5 marks</b>	

## **B. SUMMATIVE ASSESSMENT:**

Respiratory medicine is learnt and assessed during professional years [PY] 2 and 3 part

1. Summative assessment will be held at the end of 3<sup>rd</sup> professional year part 2 as a part of general medicine theory papers as respiratory medicine is an allied subject of general medicine.

### **Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in general medicine theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) in general medicine to pass

## **8. INTEGRATION:**

Competency list for integration					
SL	Comp No.	Competency to be integrated	nesting/ sharing/ aligning /correlation	Integrating department	
				Horizontal	Vertical
1	CT1.11	Assist in the performance, outline the correct tests that require to be performed and interpret the results of a pleural fluid aspiration.	Sharing	Horizontal	

## **9. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS**

1. Macleod's Clinical Examination, 14th Edition
2. Hutchison's Clinical Methods, 24th Edition
3. Davidson's Principles and Practice of Medicine, 23rd Edition
4. Technical and Operational Guidelines for TB Control in India
5. Tuberculosis by S.K.Sharma, 2nd edition



## CASUALTY

### 1. GOAL

Broad goal of teaching undergraduate medical students in casualty clinical posting is to enable them to manage emergencies with adequate competence at primary care level

### 2. OBJECTIVES

#### 2.1 KNOWLEDGE

The student shall be able to understand the principles of:

- Approach to patients presenting with common emergency problems
- To understand medicolegal formalities
- To understand principles of disaster management

#### 2.2 SKILLS

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

- Take history,
- Examine patients,
- Interpret clinical and investigational data,
- Documentation of medical data,
- Work in teams,
- Provide timely and appropriate care for patients
- Coordinate with other departments

#### 2.3 ATTITUDE AND COMMUNICATION SKILLS

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

- Communicate properly with patients and their relatives about patients condition and plan of treatment
- Communicate effectively with other departments
- Communicate cordially with peers and support staff
- Communication aptly with legal authorities
- Demonstrates respect for teachers, nurses, colleagues, patients and support staff

## 2.4 INTEGRATION:

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

Understand principles of integration of patient care with other departments

## 3. TEACHING HOURS AND COURSE CONTENT

### A. Teaching Hours

Sl. No	Teaching Learning Method Practicals	No. weeks
1	Bedside clinics/practicals	2 weeks
	<b>TOTAL</b>	

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	As allotted
2	Skill Lab	As allotted
	<b>TOTAL</b>	

### B. Course contents

i. **THEORY:** nil

ii. **PRACTICAL**

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Bedside Clinics/DOAP/field visits domain K/S/A Level K/KH/S/SH,	No. of weeks=2
1	Orientation and TRIAGE		
2	Approach to and management of acute abdomen		
3	Approach to and management of a patient with sepsis [medical and surgical]		
4	Approach to and management of a patient with shock		
5	Approach to and management of a patient with acute dyspnoea		

6	Approach to and management of an unconscious patient and a case of status epilepticus		
7	Approach to and management of a patient with poisoning or overdose		
8	Approach to and management of a patient with envenomations		
9	Basic idea about Medico Legal Case		
10	Trauma resuscitation		
11	Mass casualty/ disaster management		
12	Revision		
13	Revision		
14	End of posting examination		

#### 4. SKILL LAB:

Comp no.	Competency Description [ P]	Duration hours	Number of batches[number of students per batch]
		AS ALLOTTED	
<b>Total</b>			

#### 5. CERTIFICATION OF SKILLS: nil

#### 6. AETCOM

Sl. No.	Module Number	Lectures [hours]	Small group [hours]	No. of Hours
	AETCOM	AS ALLOTTED		hours

## 7. Clinical clerkship plan

	WORK PATTERN
MONDAY	10 am to 11 am NEW case history taking, examination and case sheet writing. 11 am to 1 pm Clinical case presentation and subject discussion
Tuesday	10 am to 11 am NEW case history taking, examination and case sheet writing. 11 am to 1 pm Clinical case presentation and subject discussion
Wednesday	10 am to 11 am NEW case history taking, examination and case sheet writing. 11 am to 1 pm Clinical case presentation and subject discussion
Thursday	10 am to 11 am NEW case history taking, examination and case sheet writing. 11 am to 1 pm Clinical case presentation and subject discussion
Friday	10 am to 11 am NEW case history taking, examination and case sheet writing. 11 am to 1 pm Clinical case presentation and subject discussion
SATURDAY	MEDICOLEGAL DOCUMENTATION

## 8. SCHEME OF EXAMINATION:

### Eligibility criteria:

- Eligibility for exams: 80% attendance in bedside clinics
- completion of log and record books
- Learners must have completed the required certifiable competencies

**Pass criteria:** obtaining 50% marks in end of posting exams and as an allied subject of medicine.

## B. FORMATIVE ASSESSMENT

### PRACTICAL INTERNAL ASSESSMENT

- Clinical end posting exams [EOP] will be conducted
- Viva/oral examination should assess approach to clinical context and included in practical IA marks.
- 

<b>DEPARTMENT OF CASUALTY</b>		
Integrated phase-wise Internal Assessment		
<b>THEORY</b>		<b>ALL PHASES</b>
<b>Written</b>	<b>Theory</b>	<b>NO THEORY CLASSES ALLOTTED</b>
	<b>MCQ</b>	
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	
	<b>Logbook</b>	
<b>Total</b>		<b>00</b>
<b>FINAL THEORY IA MARKS = 00</b>		

<b>DEPARTMENT OF CASUALTY</b>		
Integrated phase-wise Internal Assessment		
<b>PRACTICAL</b>		<b>Phase 3-1 2 weeks posting</b>
<b>EOP</b>	<b>Clinical skills assessment</b>	30
	<b>Viva-voce</b>	10
<b>Others</b>	<b>Formative assessment</b>	05
	<b>Logbook/ Record book</b>	05
<b>Total</b>		<b>50</b>
<b>FINAL PRACTICAL IA MARKS = 05 (final total divided by 10)</b>		

**C. SUMMATIVE ASSESSMENT:**  
**As a part of general medicine exams**

**9. INTEGRATION:**

<b>Competency list for integration</b>					
<b>SL</b>	<b>Comp No.</b>	<b>Competency to be integrated</b>	<b>nesting/ sharing/ aligning /correlation</b>	<b>Integrating department</b>	
				<b>Horizontal</b>	<b>Vertical</b>
1		<b>Trauma resuscitation</b>	NESTING	ORTHOPEDIC S, GENERAL SURGERY	
2		<b>MLC Recording</b>	NESTING		FORENSIC MEDICINE

**10. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS**

**Textbooks:**

- Tintinalli's Emergency medicine
- Rosen's Text book of emergency medicine

**Journals:**

- Indian journal of critical care medicine
- The American Journal of emergency medicine
- Journal of Emergencies, Trauma & shock

**PSYCHIATRY**  
**CURRICULUM FOR THE PY III PART I**

**1. GOAL**

Our goal is to train the learner to perform as a clinician

- who is capable of providing preventive, promotive, curative, palliative and holistic care with compassion to patients having common ailments,
- who can lead and function in a health care team efficiently,
- who is capable of communicating with patients and their families appropriately,
- who is committed to continuous self-improvement in skills and knowledge
- who is a committed, ethical and responsive professional
- who is accountable to patients, their families, community and profession

**2. OBJECTIVES:**

**2.1 KNOWLEDGE**

- The Indian Medical Graduate after his/her training in the department of Psychiatry at SDMCMS&H should be able to demonstrate understanding of the psychological basis, epidemiological profile, signs and symptoms of diseases and their investigation, management prevention and rehabilitation.

**2.2 SKILLS:** At the end of the course the student should be able to:

- Competently interview and examine a patient of any age group and make a clinical diagnosis
- Appropriately order and interpret laboratory and psychological tests
- Initiate appropriate cost-effective treatment based on an understanding of the rational drug prescriptions medical interventions required and preventive measures,
- Independently perform common medical procedures safely
- Document his/her observations accurately,
- Follow up patients with psychological / medical problems and refer whenever required,
- Communicate effectively, educate and counsel the patient and family,
- Manage common psychiatric emergencies and refer when required,

### **2.3 ATTITUDE AND COMMUNICATION SKILLS:**

At the end of the course, the learner shall be able to

- Respect patient's autonomy
- Do no harm
- Understand and follow the principle of beneficence
- Think and act in a just manner
- Demonstrate empathy
- Respect privacy
- Maintain confidentiality
- Communicate effectively,
- Educate and counsel the patient and family,
- Maintain punctuality
- Work in a team of peers, seniors and interdepartmental personnel.

### **2.4 COMPETENCIES:**

The student must demonstrate:

- Ability to promote mental health and mental hygiene,
- Knowledge of aetiology (bio-psycho-social-environmental interactions), clinical features, diagnosis and management of common psychiatric disorders across all ages,
- Ability to recognize and manage common psychological and psychiatric disorders in a primary care setting, institute preliminary treatment in disorders difficult to manage, and refer appropriately,
- Ability to recognize alcohol/ substance abuse disorders and refer them to appropriate centres,
- Ability to assess risk for suicide and refer appropriately,
- Ability to recognize temperamental difficulties and personality disorders,
- Assess mental disability and rehabilitate appropriately,
- Understanding of National and State programmes that address mental health and welfare of patients and community.

### **2.5 INTEGRATION**

At the end of the course, the learner shall be able to form concepts through aligned and integrated learning experiences in order to provide sound psychological and biological basis incorporating the principles of psychology and psychiatry into a holistic and comprehensive approach to the care of the patient.



### 3. TEACHING HOURS AND COURSE CONTENT

#### C. Teaching Hours

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching	25
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	10
3	Self-directed Learning( SDL)	05
	<b>TOTAL</b>	<b>45</b>

Sl. No	Teaching Learning Method Practicals	No. of weeks
1	Bedside clinics	2
	<b>TOTAL</b>	

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	5hrs
	<b>TOTAL</b>	

#### D. Course contents

##### v. THEORY:

#### Psychiatry Lecture Schedule

No	Topic	Competencies	Posting	Time	T/L method	Assessment
1	Doctor patient relationship	<ul style="list-style-type: none"> <li>● Components of communication</li> <li>● breaking bad news</li> <li>● importance of confidentiality</li> </ul> PS1.2	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs

2	Mental health	<ul style="list-style-type: none"> <li>Stress, components and cause</li> <li>Time-management, study skills, balanced diet, sleep wake cycle</li> </ul> PS2.1, PS2.2	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
3	Mental health	<ul style="list-style-type: none"> <li>Components of memory, learning and emotions</li> <li>Principles of personality development and motivation</li> <li>Define and distinguish between normality and abnormality</li> </ul> PS2.3, PS2.4, PS2.5	3 <sup>rd</sup> year	1 hour	Lecture / small groups	Written/ Viva/MC Qs
4	Introduction to psychiatry	<ul style="list-style-type: none"> <li>Growth, history, development of psychiatry as specialty</li> <li>Brain and behaviour</li> </ul> PS3.1	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
5	Introduction to psychiatry	<ul style="list-style-type: none"> <li>Signs and symptoms of common mental disorders</li> <li>Biological, psychological and social factors and their interactions in causation of mental disorders</li> <li>Distinguish psychotic and non-psychotic disorders</li> </ul> PS3.2, PS3.6, PS3.12	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs

6	Introduction to psychiatry	<ul style="list-style-type: none"> <li>● Pharmacological basis and side-effects of drugs used in psychiatric disorders</li> </ul> PS3.10	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
7	Substance Use disorders	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-effects of drugs</li> <li>● Conditions for specialist referral</li> </ul> PS4.1, PS4.4, PS4.6, PS4.7	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
8	Psychotic disorders	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-effects of drugs</li> <li>● Conditions for specialist referral</li> </ul> PS5.1, PS5.3, PS5.5, PS5.6	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
9	Depression	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-effects of drugs</li> <li>● Conditions for specialist referral</li> </ul> PS6.1, PS6.4, PS6.6, PS6.7	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
10	Bipolar disorders	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-</li> </ul>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs

		<p>effects of drugs</p> <ul style="list-style-type: none"> <li>● Conditions for specialist referral</li> </ul> <p>PS7.1, PS7.4, PS7.6, PS7.7</p>				
11	Assessment	<p>First Formative assessment</p>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
12	Anxiety disorders	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-effects of drugs</li> <li>● Conditions for specialist referral</li> </ul> <p>PS8.1, PS8.4, PS8.6, PS8.7</p>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
13	OCD	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-1 hour effects of drugs</li> <li>● Conditions for specialist referral</li> <li>● PS8.1, PS8.4, PS8.6, PS8.7</li> </ul>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
14	Stress related disorders	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-effects of drugs</li> <li>● Conditions for specialist referral</li> <li>● PS9.1, PS9.4, PS9.6, PS9.7</li> </ul>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs

15	Personality disorders	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-effects of drugs</li> <li>● Conditions for specialist referral</li> </ul> PS11.1, PS11.4, PS11.6, PS11.7	3 <sup>rd</sup> year	1 hour	Lecture / Small Group	Viva/written/MC Qs
16	Psychosexual and Gender Identity disorders  (Psychosexual disorders)	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-effects of drugs</li> <li>● Conditions for specialist referral</li> </ul> PS13.1, PS13.4, PS13.6, PS13.7	3 <sup>rd</sup> year	1 hour	Lecture / Small Group	Viva/written/MC Qs
17	Psychosexual and Gender Identity disorders  (Gender Identity disorders)	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-effects of drugs</li> <li>● Conditions for specialist referral</li> </ul> PS13.1, PS13.4, PS13.6, PS13.7	3 <sup>rd</sup> year	1 hour	Lecture / Small Group	Viva/written/MC Qs
18	Emotional & Behavioral problems in Child and Adolescence (ADHD, ODD,	<ul style="list-style-type: none"> <li>● Magnitude &amp; etiology</li> <li>● Treatment</li> <li>● Pharmacological basis and side-effects of drugs</li> </ul>	3 <sup>rd</sup> year	1 hour	Lecture / Small Group	Viva/written/MC Qs

	CD)	<ul style="list-style-type: none"> <li>• Conditions for specialist referral PS14.1, PS14.3, PS14.5, PS14.6</li> </ul>				
19	Other specific childhood psychiatric disorders (enuresis)	<ul style="list-style-type: none"> <li>• Magnitude &amp; etiology</li> <li>• Treatment</li> <li>• Pharmacological basis and side-effects of drugs</li> <li>• Conditions for specialist referral PS14.1, PS14.3, PS14.5, PS14.6</li> </ul>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
20	Psychiatric disorders in elderly	<ul style="list-style-type: none"> <li>• Common psychiatric disorders including dementia, depression &amp; psychosis</li> <li>• Magnitude &amp; etiology</li> <li>• Therapy in elderly</li> <li>• Conditions for specialist referral PS16.1, PS16.2, PS16.3, PS16.5</li> </ul>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
21	Psychiatric emergencies	<ul style="list-style-type: none"> <li>• Describe recognition of psychiatric emergencies like suicide, deliberate self-harm and aggressive PS17.1, PS17.2, PS17.3</li> </ul>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs

22	Therapeutics	<ul style="list-style-type: none"> <li>Describe principles of psychosocial interventions in psychiatric illness including psychotherapy, rehabilitation and behavioral therapy</li> </ul> PS18.3	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
23	Assessment	<ul style="list-style-type: none"> <li>Second Formative assessment</li> </ul>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MC Qs
24	Revision Class		3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	
25	Review and Feedback					

### Integrated Lecture Schedule

No	Topic	Competencies	Posting & Integration	Time	T/L method	Assessment
1	Introduction to psychiatry	<ul style="list-style-type: none"> <li>Enumerate, describe common psychiatric disorders, magnitude, etiology and clinical features in patients with organic psychiatric disorders</li> <li>Essential investigations</li> </ul>	3 <sup>rd</sup> year General Medicine	1 hour	Lecture/ Small Group	Viva/written/MCQs

		in patients with organic psychiatric disorders PS3.7, PS3.8				
2	Alcohol and substance use disorders	<ul style="list-style-type: none"> <li>• Magnitude and aetiology of alcohol use disorders</li> <li>• Treatment of alcohol use disorders including pharmacotherapy and psychotherapy</li> <li>• Pharmacological basis and side-effects of drugs in alcohol use disorders</li> <li>• Appropriate conditions for specialist referrals in alcohol use disorders</li> </ul> PS4.1, PS4.4, PS4.6, PS4.7	3 <sup>rd</sup> year General Medicine	1 hour	Lecture/ Small Group	Viva/written/MCQs
3	Psychosomatic disorders	<ul style="list-style-type: none"> <li>• Magnitude and etiology of psychosomatic disorders</li> <li>• Treatment of psychosomatic disorders</li> </ul>	3 <sup>rd</sup> year General Medicine	1 hour	Lecture/ Small Group	Viva/written/MCQs



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

	autism	treatments and interventions PS15.1, PS15.3, PS15.4				
6	Miscellaneous	<ul style="list-style-type: none"> <li>● Relevance and role of community psychiatry</li> <li>● Objectives, strategies and contents of National Mental Health Program</li> <li>● Enumerate and describe salient features of MHCA 2017</li> <li>● Describe the concept principles of preventive mental health promotion (positive mental health); and community education</li> <li>● Enumerate and describe the identifying features and the principles of participatory management of mental illness</li> </ul>	3 <sup>rd</sup> year Communi community psychiat ry	1 hour	Lecture/ Small Group	Viva/writ ten/MCQ s

		occurring during and after disasters PS19.1, PS19.2, PS19.4, PS19.5, PS19.6				
7	Miscellaneous	<ul style="list-style-type: none"> <li>Describe and discuss basic legal and ethical issues in psychiatry PS19.3, PS19.4</li> </ul>	3 <sup>rd</sup> year Forensic	1 hour	Lecture/ Small Group	Viva/written/MCQs
8	Risk assessment for suicide	<ul style="list-style-type: none"> <li>Enumerate and describe recognition of suicide risk in individuals PS17.1</li> </ul>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MCQs
9	ECT and other modalities like RTMS	<ul style="list-style-type: none"> <li>Indications of modified ECT</li> <li>Indications of other modalities PS 18.2</li> </ul>	3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MCQs
10	Psychological assessments		3 <sup>rd</sup> year	1 hour	Lecture/ Small Group	Viva/written/MCQs

**xiii. PRACTICAL**

**Clinical postings in III MBBS part I (Part B)**

<b>No</b>	<b>Topic</b>	<b>Competencies</b>	<b>Time</b>	<b>T/L method</b>	<b>Assessment</b>
01	Organic psychiatry	<ul style="list-style-type: none"> <li>Enumerate, describe common psychiatric disorders, magnitude, etiology and clinical features in patients with organic psychiatric disorders</li> <li>Essential investigations in patients with organic psychiatric disorders</li> <li>Describe the steps and demonstrate in a simulated environment family education in patients with organic psychiatric disorders PS 3.7, 3.8 &amp; 3.9</li> </ul>	3 hours	Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aids	OSCE, OSLER, DOPS, CBD
02	OCD	<ul style="list-style-type: none"> <li>Describe, elicit &amp; document clinical history in patient with OCD</li> <li>Enumeration, describe and interpret laboratory investigations in such patients PS8.2, PS8.3</li> </ul>	3 hours	Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aids	OSCE, OSLER, DOPS, CBD
03	Stress related/Dissociative disorders	<ul style="list-style-type: none"> <li>Describe, elicit &amp; document clinical features of stress related/dissociative disorders</li> </ul>	3 hours	Guided observation of consultants, role-plays, demonstration	OSCE, OSLER, DOPS, CBD

		<ul style="list-style-type: none"> <li>• Enumeration, describe and interpret laboratory investigations in such patients</li> </ul> <p>PS9.2, PS9.3</p>		s, simulations, Audio-visual aids	
04	Somatoform disorders	<ul style="list-style-type: none"> <li>• Describe, elicit &amp; document clinical features of somatoform disorders</li> <li>• Enumeration, describe and interpret laboratory investigations in such patients</li> <li>• Demonstrate family education in a patient with somatoform, dissociative and conversion disorders in a simulated environment</li> </ul> <p>PS10.2, PS10.3, 10.5</p>	3 hours	Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aids	OSCE, OSLER, DOPS, CBD
05	Personality disorders	<ul style="list-style-type: none"> <li>• Describe, elicit &amp; document clinical features of personality disorders</li> <li>• Enumeration, describe and interpret laboratory investigations in such patients</li> <li>• Demonstrate family education in a patient with personality disorders in a simulated environment</li> </ul>	3 hours	Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aids	OSCE, OSLER, DOPS, CBD

		PS11.2, PS11.3, PS 11.5			
06	Psychosomatic disorders	<ul style="list-style-type: none"> <li>Describe, elicit &amp; document clinical features in patients with psychosomatic disorders</li> <li>Enumeration, describe and interpret laboratory investigations in such patients</li> <li>Demonstrate family education in a patient with psychosomatic disorders in a simulated environment</li> </ul>	3 hours	Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aids	OSCE, OSLER, DOPS, CBD
		PS12.2, PS12.3, PS 12.5			
07	Psychosexual and Gender Identity disorders	<ul style="list-style-type: none"> <li>Describe, elicit &amp; document clinical features in patients with psychosexual and gender identity disorders</li> <li>Enumeration, describe and interpret laboratory investigations in such patients</li> <li>Demonstrate family education in a patient with psychosexual and gender identity disorders in a simulated environment</li> </ul>	3 hours	Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aids	OSCE, OSLER, DOPS, CBD
		PS13.2, PS13.3, PS 13.5			

08	Child and adolescent psychiatric disorders	<ul style="list-style-type: none"> <li>● Describe, elicit &amp; document clinical features in patients with child and adolescent psychiatric disorders</li> <li>● Enumeration, describe and interpret laboratory investigations in such patients</li> <li>● Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment</li> </ul> <p>PS14.2, PS 14.4</p>	3 hours	Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aids	OSCE, OSLER, DOPS, CBD
09	Mental retardation	<ul style="list-style-type: none"> <li>● Elicit and document a history and clinical examination and choose appropriate investigations in a patient with mental retardation</li> <li>● Describe, elicit &amp; document clinical history in child with mental retardation</li> <li>● Perform adequate physical examination in such children</li> <li>● Choose appropriate investigations in child with mental retardation</li> </ul>	3 hours	Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aids	OSCE, OSLER, DOPS, CBD

		PS 15.3, PS15.4			
10	Psychiatric disorders in elderly	<ul style="list-style-type: none"> <li>Perform family education in a patient with psychiatric disorders in elderly in a simulated environment</li> </ul> PS16.4	3 hours	Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aids	OSCE, OSLER, DOPS, CBD
11	Family education	<ul style="list-style-type: none"> <li>Describe and demonstrate steps of family education in a simulated environment in a patient with following psychiatric disorders <ul style="list-style-type: none"> <li>Personality disorders</li> <li>Psychosomatic disorders</li> <li>Psychosexual and Gender identity disorders</li> <li>Psychiatric disorders in childhood and adolescence</li> <li>Elderly with psychiatric illnesses</li> </ul> </li> </ul> PS11.5, PS12.5, PS13.5, PS14.4, PS16.5	3 hours	Guided observation of consultants, role-plays, demonstrations, simulations, Audio-visual aids	OSCE, OSLER, DOPS, CBD
12	End of postings Assessment	With feedback	3 hours		OSCE
<b>Total</b>			<b>36 Hours</b>		



- # OSCE (Objective Structured Clinical Examination)
- # OSLER (Objective Structured Long Examination Record)
- # DOPS (Direct Observation of Procedural Skills)
- # CBD (Case Based Discussion)

**SELF DIRECTED LEARNING (SDL) schedule: 5 hours**

No	Topic	Competencies	Time	T/L method	Assessment
01	Stigma	Enumerate the components of stigma DR9.7	1hr	Lecture/ Small Group	Viva/written /MCQs
02	Suicide	Define Suicide Components of Suicidal Behavior Evaluation of Suicidal behavior  PS17.1	1hr	Lecture/ Small Group	Viva/written /MCQs
03	Memory and Learning	Describe and discuss the physiological basis of memory, learning and speech PY10.9	1hr	Lecture/ Small Group	Viva/written /MCQs
04	Emotions	Define and describe the principles of emotions PS2.3	1hr	Lecture/ Small Group	Viva/written /MCQs
05	Addiction	Behavioral addiction PH1.22	1hr	Lecture/ Small Group	Viva/written /MCQs
<b>Total</b>			<b>05 Hours</b>		

**SKILL LAB: NIL**

**CERTIFICATION OF SKILLS: NIL**

**xiv. AETCOM: MODULE 3.1: THE FOUNDATIONS OF COMMUNICATION**

Sl. No.	Module Number	Lectures [hours]	Small group [hours]	No. of Hours
	AETCOM	3hrs	2hrs	5hrs

**xv. Clinical clerkship plan**

Days	UNIT-I	UNIT-II
Monday : Day 1	10:00am – 1:00 am OPD case presentation  5-6 pm: Admitted patients case work up	Case work up : History taking, Mental Status Examination
Tuesday: Day 2	Case work up : History taking, Mental Status Examination	10:00am – 1:00 am OPD case presentation  5-6 pm: Admitted patients case work up
Wednesday: Day 3	10:00am – 1:00 am OPD case presentation  5-6 pm: Admitted patients case work up	Case work up: Investigations and management

Thursday: Day 4	Case work up: Investigations and management	10:00am – 1:00 am OPD case presentation  5-6 pm: Admitted patients case work up
Friday: Day 5	10:00am – 1:00 am OPD case presentation – follow up cases 5-6 pm: Admitted patients case work up	Case work up: Psychological assessments
Saturday: Day 6	Case work up: Psychological assessments	10:00am – 1:00 am OPD case presentation – follow up cases 5-6 pm: Admitted patients case work up
Monday: Day 7	10:00am – 1:00 am OPD case presentation – follow up cases 5-6 pm: Admitted patients case work up	Case work up : Pre ECT evaluation
Tuesday: Day 8	Case work up : Pre ECT evaluation	10:00am – 1:00 am OPD case presentation – follow up cases 5-6 pm: Admitted patients case work up
Wednesday: Day 9	10:00am – 1:00 am OPD case presentation – application of scales  5-6 pm: Admitted patients case work up	Case work up: Psychoeducation

Thursday: Day 10	Case work up: Psychoeducation	10:00am – 1:00 am OPD case presentation – application of scales  5-6 pm: Admitted patients case work up
Friday: Day 11	10:00am – 1:00 am OPD case presentation – Explaining adherence to treatment  5-6 pm: Admitted patients case work up	Case work up: Psychiatric Emergency Assessment
Saturday: Day 12	Case work up: Psychiatric Emergency Assessment	10:00am – 1:00 am OPD case presentation: Explaining adherence to treatment  5-6 pm: Admitted patients case work up

#### 4. SCHEME OF EXAMINATION:

##### Eligibility criteria:

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the logbook.

## A. FORMATIVE ASSESSMENT

### THEORY INTERNAL ASSESSMENT:

- A minimum of 2 Internal Assessments (IAs) to be conducted
- One of the internal exams will be conducted like preliminary exams
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]
- Written exams will include MCQ's [MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30% of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

<b>DEPARTMENT OF PSYCHIATRY</b>				
Integrated phase-wise Internal Assessment				
<b>THEORY</b>		<b>Phase 3-1</b>		<b>Final Total</b>
		<b>IA-1</b>	<b>IA-2</b>	
<b>Written</b>	<b>Theory<sup>#</sup></b>	35	20	
	<b>MCQ</b>	10	10	
	<b>AETCOM*</b>	05	--	
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05	05	
	<b>Logbook</b>	05	05	
<b>Total</b>		<b>60</b>	<b>40</b>	<b>100</b>
<b>FINAL THEORY IA MARKS = 20 (final total divided by 5)</b>				
* To be included as a question in theory paper				

<b>DEPARTMENT OF PSYCHIATRY</b>					
Integrated phase-wise Internal Assessment					
<b>PRACTICAL</b>		<b>Phase 2 2wk posting</b>	<b>Phase 3-1 2wk posting</b>	<b>Final Total</b>	
<b>EOP</b>	<b>Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)</b>	20	30		
	<b>Viva-voce (may include AETCOM)</b>	10	10		
<b>Others</b>	<b>Formative assessment</b>	05	05		
	<b>Logbook/ Record book</b>	05	05		
<b>Total</b>		<b>40</b>	<b>50</b>		<b>90</b>
<p><b>FINAL PRACTICAL IA MARKS = 15 (final total divided by 6)</b>            At least one EOP is to be conducted with OSCE as a part of it.            AETCOM may be included as an OSCE station or as a part of viva-voce during            EOP, if it needs to be assessed in practical (Refer competency booklet &amp;            AETCOM module)</p>					

### Blue printing of internal assessments in Psychiatry

<b>BLUEPRINT</b>	<b>Number of questions</b>	
	<b>IA-1*</b>	<b>IA-2</b>
<b>MCQ</b> (1 mark each)	10	10
<b>Structured Long Essay</b> (10 marks each)	01	00
<b>Short Essay</b> (5 marks each)	04	02
<b>Short Answer</b> (2 marks each)	05	05
<b>Total (in marks)</b>	<b>50</b>	<b>30</b>
<b>* AETCOM should have a weightage of 5 marks</b>		

## **B. SUMMATIVE ASSESSMENT:**

Psychiatry is learnt and assessed during professional years [PY] 3rd year Part 1. SA will be held at the end of 3<sup>rd</sup> professional year part 2.

### **Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment, has to successfully complete the remediation measures prescribed by the University. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

## **5. RECOMMENDED TEXTBOOKS, REFERENCE BOOKS AND ATLAS**

### **Textbooks**

*Note: A single textbook may not cover the entire curriculum. Referring to more than one book is recommended.*

### **Recent editions of:**

Kaplan & Sadock's - Synopsis of Psychiatry: 11<sup>th</sup> edition  
A Short textbook of Psychiatry – 7<sup>th</sup> edition, Dr Niraj Ahuja  
ICD-10 (Diagnostic criteria's)  
Fish's clinical Psychopathology: 4<sup>th</sup> edition

### **Reference books**

Oxford textbook of Psychiatry: 2<sup>nd</sup> edition  
Kaplan & Sadock's Comprehensive Text of Psychiatry: 10<sup>th</sup> edition

## Journals

Indian Journal of Psychiatry  
 Indian Journal of Psychological Medicine  
 Cochrane review  
 American Journal of Psychiatry  
 British Journal of Psychiatry  
 Psychiatric Clinics of North America (PCNA)

## MASTERCHART:

	Phase 2		Phase 3-1		Phase 3-2	
	First IA	Second IA	First IA	Second IA	First IA	Second IA
Community Medicine	40+10	40+10	60+20	100+20*	--	--
Forensic Medicine	40+10	40+10	60+20	100+20	--	--
Ophthalmology	--	--	60+20	100+20	--	--
ENT	--	--	60+20	100+20	--	--
OBG	40+10	40+10	40+10	40+10	60+20	100+20 *
Gen Medicine	40+10	40+10	40+10	40+20	100+20	100+20 *
Gen Surgery	40+10	40+10	40+10	40+20	100+20	100+20 *
Pediatrics	--	--	40+10	40+10	60+20	100+20
Orthopedics	--	--	--	25+05	30+10	60+10
Psychiatry	--	--	50+10	30+10	--	--
Skin	--	--	30+10	40+10	--	--
Pulmonology	--	--	--	70+20	--	--
Radio diagnosis	--	--	--	30+10	--	--
Anaesthesia	--	--	--	30+10	--	--
Dentistry	--	--	--	30+10	--	--
PM&R	--	--	--	20+10	--	--

\* Has two papers of 100 marks each

The IA marked with yellow are preliminary exams

The IA marked in blue are allied subjects, they don't have preliminary exams



## OPHTHALMOLOGY

### 1. GOAL

The broad goal of undergraduate teaching in ophthalmology is to impart appropriate knowledge, skills, attitudes, values and responsiveness, so that she or he may function appropriately and effectively as a primary care physician of first contact for ocular disorders and also function as a community health leader to assist in the implementation of NPCB and to familiarize the recent advances in ophthalmology.

### 2. OBJECTIVES

#### 2.1 KNOWLEDGE

At the end of the course, the student should have knowledge of:

1. Common problems affecting the eye
2. Magnitude of blindness in India and its main causes
3. Principles of management of major ophthalmic emergencies
4. Major systemic diseases affecting the eye
5. Effect of local and systemic diseases on the patient's vision and the necessary action required to minimise the sequelae of such diseases
6. Adverse drug reactions with special reference to ophthalmic manifestations
7. National programme for prevention of blindness and its implementation at various level
8. Eye care education for prevention of eye problems
9. Role of Primary Health Centres
10. Organisation 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 organisation

#### 2.2 SKILLS

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

1. Elicit a history pertinent to general health and ocular status
2. Perform procedures such as visual acuity testing, extraocular movements testing, digital tonometry, instillation of eye drops, eye wash and ocular bandaging.

3. Observe basic procedures like Indirect ophthalmoscopy, epilation, conjunctival/corneal foreign body removal, corneal staining, perimetry, etc
4. Diagnose and treat common problems affecting the eye
5. Interpret ophthalmic signs in relation to common systemic disorders
6. Provide first aid in major ophthalmic emergencies
7. To be part of community surveys for visual health
8. To be part of primary eye care services through Primary Health Centres

### 2.3 ATTITUDE AND COMMUNICATION SKILLS

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

1. Use effective means of communication with the public and individuals to motivate them for surgery for cataract, glaucoma ,etc and for eye donation
2. Establish rapport with his seniors, colleagues and paramedical workers, so as to effectively function as a member of the eye care team

### 2.4 INTEGRATION

From the integrated teaching of other basic sciences, student should be able to apply this knowledge to diagnose and manage common eye problems and to function effectively as a primary care physician of first contact for ocular disorders.

## 3. TEACHING HOURS AND COURSE CONTENT

### A. Teaching Hours

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching	30
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	60
3	Self-directed Learning( SDL)	10
	<b>TOTAL</b>	<b>100</b>

Sl. No	Teaching Learning Method Practicals	No. of weeks
1	Bedside clinics	4
	<b>TOTAL</b>	<b>4</b>

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	5
2	Skill Lab	-
	<b>TOTAL</b>	<b>5</b>

## B. Course Contents

### i. THEORY (Large and small group teaching)

Sl No	Topic: Visual acuity assessment (With competency number) Core/Non-core competency	Lecture (Large group)	Hours 30
1	<b>Core</b> :Describe the physiology of vision <b>OP 1.1</b> Describe & demonstrate parts and layers of eyeball <b>AN41.1</b>		<b>5</b>
2	Describe and discuss auditory & visual evoke potentials <b>PY10.19</b>		
3	<b>Core</b> : Define, classify and describe the types and methods of correcting refractive errors <b>OP1.2</b>		
4	<b>Core</b> : 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. <b>OP1.3</b>		
5	<b>Core</b> : Enumerate the indications and describe the principles of refractive surgery <b>OP 1.4</b>		
	<b>Lids and Adnexa, Orbit</b>		
1	<b>Core</b> : 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 lag, lagophthalmos <b>OP2.1</b>		

2	<b>Core:</b> Demonstrate under supervision clinical procedures performed in the lid including: bells phenomenon, assessment of entropion/ectropion, performs the regurgitation test of lacrimal sac. Massage technique in cong. dacryocystitis, and trichiatic cilia removal by epilation <b>OP2.3</b>		4
3	<b>Core:</b> Describe the aetiology, clinical presentation. Discuss the complications and management of orbital cellulitis <b>OP2.4</b>		
4	<b>Core:</b> Classify the various types of orbital tumours. Differentiate the symptoms and signs of the presentation of various types of ocular tumours <b>OP2.7</b> <b>None-core:</b> Describe the etiology, genetics, pathogenesis, pathology, presentation, sequelae and complications of retinoblastoma <b>PA36.1</b>		
<b>Conjunctiva</b>			
1	<b>Core:</b> Describe the aetiology, pathophysiology, ocular features, differential diagnosis, and complications. and management of various causes of conjunctivitis <b>OP3.3</b>		3
2	<b>Core:</b> Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of vernal catarrh <b>OP3.5</b>		
3	<b>Core:</b> Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of Pterygium <b>OP3.6</b>		
<b>Cornea</b>			
1	<b>Core:</b> Enumerate, describe and discuss the types and causes of corneal Ulceration <b>OP4.1</b>		02
2	<b>Core:</b> Enumerate the indications and the types of keratoplasty <b>OP4.6</b>		

	<b>Sclera</b>		
1	<b>Core:</b> Define, enumerate and describe the aetiology, associated systemic conditions, clinical features complications indications for referral and management of episcleritis <b>OP5.1</b>		<b>01</b>
	<b>Iris and Anterior chamber</b>		
1	<b>Core:</b> Describe clinical signs of intraocular inflammation and enumerate The features that distinguish granulomatous from non-granulomatous inflammation. Identify acute iridocyclitis from chronic condition <b>OP6.1</b>		<b>5</b>
2	<b>Core:</b> Enumerate systemic conditions that can present as iridocyclitis and describe their ocular manifestations <b>OP6.3</b>		
3	<b>Core:</b> Describe and discuss the angle of the anterior chamber and its clinical correlates <b>OP6.5</b> <b>None-core:</b> Describe the anatomical aspects of cataract, glaucoma & central retinal artery occlusion <b>AN41.2</b>		
4	<b>Core:</b> 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. <b>OP6.7</b>		
5	<b>Core:</b> Enumerate and choose the appropriate investigation for patients with conditions affecting the Uvea <b>OP6.8</b>		
	<b>Lens</b>		
1	<b>Core:</b> Describe the surgical anatomy and the metabolism of the lens <b>OP7.1</b>		<b>03</b>
2	<b>Core:</b> Describe and discuss the aetio-pathogenesis, stages of maturation and complications of cataract <b>OP7.2</b>		
3	<b>Core:</b> Enumerate the types of cataract surgery and describe the steps, intra-operative and post-operative complications of extracapsular Cataract extraction surgery. <b>OP7.4</b>		
	<b>Retina &amp; optic Nerve</b>		
1	<b>Core:</b> Discuss the aetiology, pathology, clinical features and management of vascular occlusions of the retina <b>OP8.1</b>		

2	<b>Core:</b> Enumerate and discuss treatment modalities in management of diseases of the retina <b>OP8.4</b>		<b>03</b>
3	<b>Core:</b> Describe and discuss the correlative anatomy, aetiology, clinical manifestations, diagnostic tests, imaging and management of diseases of the optic nerve and visual pathway <b>OP8.5</b>		
<b>Miscellaneous</b>			
1	<b>Core:</b> Classify, enumerate the types, methods of diagnosis and indications for referral in a patient with heterotropia/ strabismus <b>OP9.2</b>		<b>4</b>
2	<b>Core:</b> Enumerate, describe and discuss the causes of avoidable blindness and the National Programs for Control of Blindness (including vision 2020) <b>OP9.4</b>		
3	<b>Core:</b> Describe the evaluation and enumerate the steps involved in the stabilisation, initial management and indication for referral in a patient with ocular injury <b>OP9.5</b>		
4	Describe drugs used in Ocular disorders <b>PH1.58</b>		

<b>Sl No</b>	<b>Topic: Visual acuity assessment (With competency number) Core/Non-core competency</b>	<b>Small group Seminars</b>	<b>Hours 36 hrs</b>
1	<b>None-core:</b> Describe the position, nerve supply and actions of intraocular muscles <b>AN41.3</b>		<b>6</b>
2	<b>Core:</b> 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 <b>PY10.17</b> Describe and discuss the physiological basis of lesion in visual pathway <b>PY10.18</b>		
3	<b>Core:</b> Define, classify and describe the types and methods of correcting refractive errors <b>OP1.2</b>		
4	<b>Core:</b> 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. <b>OP1.3</b>		

5	<b>Core :</b> Define, enumerate the types and the mechanism by which strabismus leads to amblyopia <b>OP 1.5</b>		
	<b>Lids and Adnexa, Orbit</b>		
1	<b>Core:</b> 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 lag, lagophthalmos <b>OP2.1</b>		<b>4</b>
2	<b>Core:</b> Enumerate the causes and describe the differentiating features, and clinical features and management of proptosis <b>OP2.6</b>		
3	<b>Core:</b> List the investigations helpful in diagnosis of orbital tumors. Enumerate the indications for appropriate referral <b>OP2.8</b>		
	<b>Conjunctiva</b>		
1	<b>Core:</b> Describe the aetiology, pathophysiology, ocular features, differential diagnosis, and complications. and management of various causes of conjunctivitis <b>OP3.3</b>		<b>3</b>
2	<b>Core:</b> Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of vernal catarrh <b>OP3.5</b>		
	<b>Corneas</b>		
1	<b>Core:</b> Enumerate the causes of corneal edema <b>OP4.3</b>		<b>03</b>
2	<b>Core:</b> Enumerate the causes of corneal blindness <b>OP4.5</b>		
3	<b>Core :</b> Enumerate the indications and describe the methods of tarsorrhaphy <b>OP4.7</b>		
4	<b>Core:</b> Describe and discuss the importance and protocols involved in eye donation and eye banking <b>OP4.9</b>		

	<b>Sclera</b>		
1	<b>Core</b> :Define, enumerate and describe the aetiology, associated systemic conditions, clinical features, complications, indications for referral and management of scleritis <b>OP5.2</b>		<b>01</b>
<b>Iris and Anterior chamber</b>			
1	<b>Core:</b> Identify and distinguish acute iridocyclitis from chronic iridocyclitis <b>OP6.2</b>		<b>7</b>
2	<b>Core:</b> Enumerate systemic conditions that can present as iridocyclitis and describe their ocular manifestations <b>OP6.3</b>		
3	<b>Core:</b> Describe and distinguish hyphema and hypopyon <b>OP6.4</b>		
4	<b>Core:</b> 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. <b>OP6.7</b>		
5	<b>Core:</b> Choose the correct local and systemic therapy for conditions of the anterior chamber and enumerate their indications, adverse events and interactions <b>OP6.9</b>		
<b>Lens</b>			
1	<b>Core:</b> Describe and discuss the aetio-pathogenesis, stages of maturation and complications of cataract <b>OP7.2</b>		<b>04</b>
2	<b>Core:</b> Enumerate the types of cataract surgery and describe the steps, intra-operative and post-operative complications of extracapsular Cataract extraction surgery. <b>OP7.4</b>		
<b>Retina &amp; optic Nerve</b>			
1	<b>Core:</b> Discuss the aetiology, pathology, clinical features and management of vascular occlusions of the retina <b>OP8.1</b>		<b>04</b>
2	<b>Core:</b> Enumerate and discuss treatment modalities in management of diseases of the retina <b>OP8.4</b>		



3	<p><b>Core:</b> Describe and discuss the correlative anatomy, aetiology, clinical manifestations, diagnostic tests, imaging and management of diseases of the optic nerve and visual pathway <b>OP8.5</b></p> <p><b>Non-Core:</b> Explain effect of pituitary tumours on visual pathway <b>AN30.5</b></p>		
<b>Miscellaneous</b>			
1	<p><b>Core:</b> Classify, enumerate the types, methods of diagnosis and indications for referral in a patient with heterotropia/ strabismus <b>OP9.2</b></p> <p>Explain the anatomical basis of oculomotor, trochlear and abducent nerve palsies along with strabismus <b>AN31.5</b></p> <p><b>Non-Core:</b> Describe anatomical basis of Horner's syndrome <b>AN31.3</b></p>		<b>4</b>
2	<p><b>Core:</b> Enumerate, describe and discuss the causes of avoidable blindness and the National Programs for Control of Blindness (including vision 2020)</p> <p><b>OP9.4</b></p>		
3	<p><b>Core:</b> Describe the evaluation and enumerate the steps involved in the stabilisation, initial management and indication for referral in a patient with ocular injury <b>OP9.5</b></p>		
4	<p><b>Core:</b> Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vision and visual loss in the elderly <b>IM24.15</b></p>		

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Small group teaching- Case based learning sessions	No. of Hours 16 hrs
1	<b>Core:</b> Cavernous sinus thrombosis: Describe the clinical features on ocular examination and management of a patient with cavernous sinus thrombosis <b>OP2.5</b>		2
2	<b>Core:</b> Trachoma: Describe the aetiology, pathophysiology, ocular features, differential Diagnosis, complications and management of trachoma <b>OP3.4</b>		2
3	<b>Core:</b> Pterygium: Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of Pterygium <b>OP3.6</b>		2
4	<b>Core:</b> Symblepharon: Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of symblepharon <b>OP3.7</b>		2
5	<b>Core:</b> Corneal Ulcer: Enumerate and discuss the differential diagnosis of infective keratitis <b>OP4.2</b>		2
6	<b>Core:</b> Dry Eye: Enumerate the causes and discuss the management of dry eye <b>OP4.4</b>		2
7	<b>Core:</b> Laser therapy for Retinal diseases: Enumerate the indications for laser therapy in the treatment of retinal diseases (including retinal detachment, retinal degenerations, diabetic retinopathy & hypertensive retinopathy) <b>OP8.2</b>		2
8	<b>Core:</b> Headache: Describe the role of refractive error correction in a patient with headache and enumerate the indications for referral <b>OP9.3</b>		2

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Self-Directed Learning	No. of Hours
1	Red Eye – causes, Differences between Conjunctival & ciliary congestion		1
2	<b>Core:</b> Corneal Ulcer – Bacterial, Viral, Fungal Clinical features, Investigations & Management <b>OP 4.2</b>		1
3	Epiphora – Etiology & Evaluation		1
4	<b>Core:</b> Diabetic Retinopathy classification and treatment modalities <b>OP 8.2</b>		1
5	<b>Core:</b> Preventable Blindness <b>OP 9.4</b>		1
6	Ocular Emergencies		1
7	<b>Core:</b> Cycloplegics & Mydriatics <b>PH 1.58</b>		1
8	<b>Core:</b> Lenses – Identification & Uses of Convex & Concave lenses		1
9	Vernal keratoconjunctivitis – clinical features & management		1
10	<b>Core:</b> Tests for Dry Eye <b>OP 4.4</b>		1

## ii. PRACTICALS

### a) Bedside Clinics:

SL. NO.	TOPIC OF PRACTICAL :	Suggested teaching learning method	Teaching hours
1	<b>Core:</b> 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. <b>OP1.3,PY10.20</b>	DOAP	3
2	<b>Core:</b> Demonstrate technique of removal of foreign body in the cornea in a simulated environment <b>OP4.8</b>	DOAP	3
3	<b>Core:</b> Counsel patients and family about eye donation in a simulated environment <b>OP4.10</b>	DOAP	3

4	<b>Core:</b> Identify and demonstrate the clinical features and distinguish and diagnose common clinical conditions affecting the anterior chamber <b>OP6.6</b>	DOAP	3
5	<b>Core:</b> Counsel patients with conditions of the iris and anterior chamber about their diagnosis, therapy and prognosis in an empathetic manner in a simulated environment <b>OP6.10</b>	DOAP	3
6	<b>Core:</b> Demonstrate the correct technique of ocular examination in a patient with a cataract <b>OP7.3</b>	DOAP	3
7	<b>Core:</b> Enumerate the types of cataract surgery and describe the steps, intra-operative and post-operative complications of extracapsular cataract extraction surgery <b>OP7.4</b>	DOAP	3
8	<b>Core:</b> To participate in the team for cataract surgery <b>OP7.5</b>	DOAP	3
9	<b>Core:</b> Administer informed consent and counsel patients for cataract surgery in a simulated environment <b>OP7.6</b>	DOAP	3
10	<b>Core:</b> Demonstrate the correct technique to examine extra ocular movements (Unocular & Binocular) <b>OP9.1</b>	DOAP	3

**b) Skill Lab:**

**c) Certifiable Skills:**

Comp no.	Competency Description [ P ]	No. required to certify	Duration hours	Number of batches[number of students per batch]
PY10.20	Demonstrate testing of visual acuity, color and	1	3	10

	field of vision in volunteer/ simulated environment			
OP9.1	Demonstrate the correct technique to examine extra ocular movements (Unocular & Binocular)	5	3	10
<b>Total</b>	<b>2</b>			

S.No	Skill	T-L Method	Assessment & Grading ( I/ O/ D)	Number of batches [number of students per batch]
1	Instillation of eye medication(I)	DOAP		10
2	Indirect Ophthalmoscopy(O)	DOAP		10
3	Epilation(O)	DOAP		10
4	Eye Irrigation(I)	DOAP		10
5	Ocular bandaging(I)	DOAP		10
6	Digital Tonometry(D)	DOAP		10

I - Independently performed on patients

O- Observed in patients or on simulations

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

### 3. AETCOM AND SKILL LAB

Sl. No.	Module Number	AETCOM/Skill Lab	Lectures	Small group	No. of Hours
1	3.3	AETCOM- Foundations of communication-4	1	4	5

**NOTE:** The above table containing teaching hours assigned to different topics under large and small group teaching may be used as a guide by the Institute.

### SUGGESTED DISTRIBUTION OF THEORY TEACHING HOURS

Sl No	Topics	Large Group	Small Group Teaching		SDL	Hours
			Seminars (36 hours)	Case based discussion (16 hours)		
1	Visual Acuity Assessment	5	5			
2	Lids and Adnexa, Orbit	4	6	2		
3	Conjunctiva	3	2	6		
4	Cornea	2	4	4		
5	Sclera	1	1			
6	Iris And Anterior Chamber	5	6			
7	Lens	3	3			
8	Retina And Optic Nerve	3	3	2		
9	Miscellaneous	4	6	2		

	<b>AETCOM</b>		<b>5</b>		
	<b>Integrated learning</b>		<b>3</b>		
	<b>TOTAL</b>	<b>30</b>	<b>60</b>	<b>10</b>	<b>100</b>

#### **4. SCHEME OF EXAMINATION:**

##### **Eligibility criteria:**

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

#### **FORMATIVE ASSESSMENT**

##### **THEORY INTERNAL ASSESSMENT:**

- A minimum of **2** Internal Assessments (IAs) to be conducted
- One of the internal exams will be conducted like preliminary exams
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules. In Formative assessment under clinical skills, in Phase 2 for total of 40 marks, 10 marks is for OSCE and 20 marks for case presentation, 10 marks for formative assessment. In phase3 part 1 posting, for total of 60 Marks, OSCE will be for 10 Marks and case presentation for 30 marks, viva for 10 marks, formative assessment 10 marks. In the next (prelims practical) internal assessment, case presentation will be for 80 marks and viva will be for 20 Marks .
- **Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]**
- Written exams will include MCQ's[MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions

- 30% of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

**The distribution of internal assessment marks shall be as mentioned below:**

<b>DEPARTMENT OF OPHTHALMOLOGY</b>					
<b>Integrated phase-wise Internal Assessment</b>					
<b>THEORY</b>		<b>Phase 3-1</b>			<b>Final Total</b>
		<b>IA-1</b>	<b>IA-2</b>	<b>IA-3 Preliminary Exam</b>	
<b>Written</b>	<b>Theory</b>	50	75	75	
	<b>MCQ</b>	10	20	20	
	<b>AETCOM*</b>	--	05	05	
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05	05	10	
	<b>Logbook</b>	05	05	10	
<b>Total</b>		<b>70</b>	<b>110</b>	<b>120</b>	
<b>FINAL THEORY IA MARKS = 100 (divide final total by 3)</b> * To be included as a question in theory paper Ophthalmology has no theory classes in Phase 2					



## Blue-printing of Internal assessments in Ophthalmology

BLUEPRINT	Number of questions		
	IA-1	IA -2	Preliminary Exam*
<b>MCQ</b> (1 mark each)	10	20	20
<b>Structured Long Essay</b> (10 marks each)	01	02	02
<b>Short Essay</b> (5 marks each)	04	08	08
<b>Short Answer</b> (2 marks each)	10	10	10
<b>Total</b> (in marks)	<b>60</b>	<b>100</b>	<b>100</b>
<b>* AETCOM should have a weightage of 5 marks</b>			

### PRACTICAL INTERNAL ASSESSMENT

- Clinical end posting exams [EOP] will be conducted
- Viva/oral examination should assess approach to clinical context and included in practical IA marks.

### Practicals:

<b>DEPARTMENT OF OPHTHALMOLOGY</b>				
Integrated phase-wise Internal Assessment				
PRACTICAL		Phase 2 4wk posting	Phase 3-1 4wk posting	Final Total
EOP	<b>Clinical skills assessment</b> (OSCE/ Mini-CEX/ Case presentation/ AETCOM)	30	40	
	<b>Viva-voce (may include AETCOM)</b>	--	10	
Others	<b>Formative assessment (including Clinical-Clerkship)</b>	05	05	
	<b>Logbook/ Record book</b>	05	05	
<b>Total</b>		<b>40</b>	<b>60</b>	<b>100</b>

**FINAL EOP<sup>#</sup> IA MARKS = 100 (sum of both EOP's)**

At least one EOP is to be conducted with OSCE as a part of it.

AETCOM may be included as an OSCE station or as a part of viva-voce during EOP, if it needs to be assessed in practical (Refer competency booklet & AETCOM module)

**Preliminary Examinations will include Bedside Clinical Examination which will mirror the Summative University Examinations (Practical)**

**FINAL PRACTICAL IA MARKS WILL BE AVERAGE OF EOP<sup>#</sup> AND PRELIMINARY EXAM (EQUAL WEIGHTAGE TO BOTH)**

**SUMMATIVE ASSESSMENT:**

Ophthalmology is learnt and assessed during professional years [PY] 2 and 3 part 1. SA will be held at the end of 3<sup>rd</sup> professional year part 1.

**Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University as the case may be prior to the declaration of his/her results in that particular phase. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

## MARKS DISTRIBUTION FOR UNIVERSITY SUMMATIVE EXAMINATION

THEORY			THEORY TOTAL	PRACTICAL		total
	Written paper	MCQ's		Practical	Viva	
Paper 1	80	20	<b>100</b>	80	20	100
Total marks			<b>100</b>	Total marks		<b>100</b>

Time: 3 hours for theory paper

The pattern of questions in theory paper shall be as mentioned below:

Type of Question	Number of Questions	Maximum Marks for each question	Total
Structured Long essay questions (SLEQ)	2	10	20
Short essay questions (SEQ) (includes case vignette based questions)	8	05	40
Short answer questions (SAQ)	10	02	20
Multiple Choice Questions (MCQs)	20	01	20
Total marks			100

The question papers shall be based on the blue print of question paper setting.

**Blueprint for the theory examinations (For use by the question paper setter)**

<b>Sl No</b>	<b>Topic</b>	<b>Total max as per SDMU guideline</b>	<b>MCQs 1 mark each</b>	<b>LEQ 10 marks each</b>	<b>SEQ 5 marks each</b>	<b>SAQ 2 marks each</b>	<b>Total marks from each topic</b>
			<b>20</b>	<b>2</b>	<b>8</b>	<b>10</b>	
1	Refractive errors & Presbyopia, Conjunctiva, Lids & adnexa	20					
2	Cornea & sclera, Optic Nerve, Neuro-ophthal	20					
3	Uvea , Lens	20					
4	Glaucoma, Retina	20					
5	Orbit, Ocular injuries, Community Ophthalmology	10					
6	Basic sciences and Miscellaneous	05					
	AETCOM	05			Case vignette based		
	<b>TOTAL</b>	<b>100</b>					

\*Total marks include MCQs.

The weightage of marks allotted for each topic shall be strictly adhered to while setting a question paper. A minimum OF 10% and up to a maximum of 30% marks shall be allocated to assess the higher order thinking of the learner.

The questions framed shall be with appropriate verbs without any ambiguity or overlap.

*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.*

## **PRACTICAL SUMMATIVE EXAMINATION: TOTAL 100 MARKS**

### **Practical Exercises: 80 MARKS**

- 1 Case 1 - 40 marks
- 2 Case 2 - 40 marks

### **Practical Viva Voce: 20 MARKS**

The Viva-Voce examination will be conducted by four examiners.

The distribution of marks will be as follows:

1. Theory Viva – 5 Marks
2. Drugs – 5 Marks
3. Trial lenses- 5 Marks
4. Ophthalmic instruments- 5 Marks

### **5. INTEGRATION:**

- May be conducted in the form of sharing/nesting/correlation using CBL/PBL/ Case study approach and involving various departments concerned while preparing the specific learning objectives of the integration topics.
- Department involved may be chosen according to the topic and may be conducted as Horizontal/ Vertical form of integration as per the CBME document.

<b>Competency list for integration</b>					
<b>SL</b>	<b>Compete ncy No.</b>	<b>Competency to be integrated</b>	<b>nesting/ sharing/ aligning /correlation</b>	<b>Integration with departments</b>	
				<b>Horiz ontal</b>	<b>Vertical</b>
1	AN30.5	Explain effect of pituitary tumours on visual pathway	Nesting		Anatomy
2	AN31.3	Describe anatomical basis of Horner's syndrome	Nesting		Anatomy
3	AN31.5	Explain the anatomical basis of oculomotor, trochlear and abducent nerve palsies along with strabismus	Nesting		Anatomy
4	AN41.1	Describe & demonstrate parts and layers of eyeball	Nesting		Anatomy
5	AN41.2	Describe the anatomical aspects of cataract, glaucoma & central retinal artery occlusion	Nesting		Anatomy
6	AN41.3	Describe the position, nerve supply and actions of intraocular muscles	Nesting		Anatomy
7	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	Nesting		Physiology
8	PY10.18	Describe and discuss the physiological basis of lesion in visual pathway	Nesting		Physiology
9	PY10.19	Describe and discuss auditory & visual evoke potentials	Nesting		Physiology

10	PY10.20	Demonstrate testing of visual acuity, colour and field of vision in volunteer/ simulated environment	Nesting		Physiology
11	PA36.1	Describe the etiology, genetics, pathogenesis, pathology, presentation, sequelae and complications of retinoblastoma	Nesting		Pathology
12	PH1.58	Describe drugs used in Ocular disorders	Nesting		Pharmacology
13	IM24.15	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vision and visual loss in the elderly	Nesting		General Medicine
14		Ocular complications of sinusoidal disorders	Sharing	ENT	
15		Approach to a case of Mucormycosis	Sharing	ENT	
16		Dacryocystorhinostomy – External and Endonasal approach	Sharing	ENT	

## **6. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND JOURNALS**

### **Text Books**

*Note: A single textbook may not cover the entire curriculum. Referring to more than one book is recommended.*

*Recent editions of:*

1. Parsons JH. Parsons' Diseases of the Eye. 23rd ed. Sihota R, Tandon R, editors. New Delhi: Elsevier India; 2019.
2. Khurana AK. Comprehensive Ophthalmology. 7th ed. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd; 2019.

### **Reference books :**

1. Kanski JJ. Kanski's clinical ophthalmology: a systematic approach. 9th ed. Salmon JF, editor. Philadelphia: Elsevier; 2020.

**\*\*\*END\*\*\***

## OTORHINOLARYNGOLOGY

### **1. GOAL**

- i. Thorough understanding of Surgical Anatomy of Ear, Nose, Throat and Head & neck region.
- ii. To Orient students for common ENT Diseases and their management.
- iii. To Orient student for common ENT Surgeries and emergency conditions.
- iv. Identify malignant neoplasms of in Ear, Nose, Throat, Head& neck region.
- v. Ability to recognize hearing impairment and rehabilitation of the same.
- vi. Understanding the importance of both the non-drug and drug treatment, selection of drugs based on suitability, tolerability, efficacy and cost.
- vii. Foresee, prevent and manage adverse drug events and drug interactions.
- viii. Use antimicrobials judiciously for therapy and prophylaxis in ENT diseases.

### **2. OBJECTIVES**

**2.1 KNOWLEDGE:** Anatomy of Ear Nose Throat and Head& Neck region

**2.2 SKILLS:** Clinical Examination and common procedures of ENT

**2.3 ATTITUDE AND COMMUNICATION SKILLS:** At the end of the course the student should be able to communicate with the patient in a respectful non- judgmental and empathetic manner. Identify discuss and define socio economical ethical and medico legal issue pertaining to consent for surgical procedure and confidentiality. Identify discuss physician's role and responsibility to society and community that he or she serves.

**2.4 INTEGRATION:** Integrated teachings of basic sciences in relate to Ear Nose and Throat and students should be able to comprehend, the functions and regulation and integration of functions of organs in related to Ear, Nose and Throat. Students should be able to interpret the anatomical Physiological and pathological basis of disease process.



### 3. TEACHING HOURS AND COURSE CONTENT

#### A. Teaching Hours

<b>Sl. No</b>	<b>Teaching Learning Method Theory</b>	<b>No. of Hours</b>
1	Large group teaching	25
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	40
3	Self-directed Learning( SDL)	05
	<b>TOTAL</b>	<b>70</b>

<b>Sl. No</b>	<b>Teaching Learning Method Practicals</b>	<b>No. of weeks</b>
1	Bedside clinics	4
	<b>TOTAL</b>	

<b>Sl. No</b>	<b>Teaching Learning Method</b>	<b>No. of Hours</b>
1	AETCOM	5
2	Skill Lab	5
	<b>TOTAL</b>	<b>10 hours</b>

I. Course Contents

11. THEORY (Large and small group teaching)

Sl. no	Competency No.	Competency Description	Type of T/L Session (Lecture/SGD/SDL)	LEVEL OF COMPETENCY with core	SLOs	No. of Hours
1.	1.1	ANATOMY OF NASAL SEPTUM AND ITS BLOOD SUPPLY	LECTURE CLASS		Student should know Anatomy and Physiology of nose	1 hours
		SURGICAL ANATOMY OF LATERAL WALL OF NOSE			Student should know about structure and functions of nose	
		MUCOCILIARY CLEARANCE OF NOSE AND FUNCTIONS OF NOSE (PHYSIOLOGY)		Y	Student should be able to identify existence of abnormality ,by knowing the normal anatomy and physiology	
2.	4.2	SURGICAL ANATOMY OF EXTERNAL EAR & DISEASES OF EXTERNAL EAR	LECTURE CLASS	K/S	Students know about the normal structure of pinna	1 hours
				SH	Otitis externa, causes, clinical features and management	
				Y	Causes of decreased hearing due to	

					pathology in external ear and its management	
3.	4.3	ASOM / AOM CLINICAL FEATURES AND MANAGEMENT	LECTURE CLASS	K/S	Should know etiopathogenes is clinical features and management of acute otitis media and ASOM	1 hours
				SH/ K	Etiopathogenes is	
				Y	Myringotomy procedure. indications and complications	
4.	4.7	SURGICAL ANATOMY OF MIDDLE EAR	LECTURE CLASS	K/S	Types of CSOM and differentiations	1 hours
		CAUSES AND CLINICAL MANIFESTATION OF CSOM		SH	Clinical features and management and complications	
		MANAGEMENT OF CSOM		Y	Ear surgeries, indications- Tympanoplasty cortical mastoidectomy	

5.	4.18	SURGICAL ANATOMY OF FACIAL NERVE	LECTURE CLASS	K	Anatomy of facial nerve in temporal bone	1 hours
		CAUSES OF LMN TYPE OF FACIAL NERVE PALSY		KH	Clinical features and management of bell's palsy	
		MANAGEMENT OF FACIAL WEAKNESS AND PROTECTION OF EYE		Y	Causes of facial palsy	
6.	4.19	ANATOMY OF VESTIBULAR APPARATUS	LECTURE CLASS	K	Anatomy & physiology of vestibular system	1 hours
		CAUSES OF VERTIGO		KH	Definition & diagnosis of vertigo cases	
		MANAGEMENT OF VERTIGO		Y	Clinical features and management of BPPV	
7.	4.23, 4.24	CAUSES OF DEVIATED NASAL SEPTUM, DNS	LECTURE CLASS	K	Types, causes ,clinical features of DNS	1 hours
		CLINICAL MANIFESTATION OF DNS		KH	Difference between SMR AND Septoplasty	
		SURGICAL MANAGEMNET OF DNS		K/Y	Complications of SMR & Septoplasty	

8.	4.29 , 4.30	SURGICAL ANATOMY OF PNS.	LECTURE CLASS	K/S	Causes & management of acute rhinitis	1 hours
		CLINICAL MANIFESTATION OF SINUSITIS.		SH	clinical features and management of atrophic rhinitis	
		MANAGEMENT OF SINUSITIS.		Y	Etiopathogenesis & Management of acute and chronic sinusitis with complications	
9.	4.3	ANATOMY OF LITTLE'S AREA, WOODRUFF PEXUS	LECTURE CLASS	K/S	Blood supply of nose	1 hours
		CAUSES AND MANAGEMENT OF EPISTAXIS		SH	Causes of anterior and posterior epistaxis	
				Y	Management of epistaxis	
10.	4.34	CLASSIFICATIONS OF TUMORS OF NOSE AND PNS	LECTURE CLASS	K	Classifications of tumors	1 hours
		CLINICAL MANIFESTATIONS INCLUDING ORBITAL INVOLVEMENT.		KH	Etiopathogenesis clinical features and management of ca Maxilla	
		MANAGEMENT OF MALIGNANT TUMORS OF MAXILLA		Y	Should know about adenocarcinoma & adenoid cystic carcinoma of	

					nose and paranasal sinuses	
11.	4.14	CAUSES	LECTURE CLASS	K	Definition, Causes of tinnitus	1 hours
		EVALUATION OF HEARING LOSS		KH	Causes & management of sudden SNHL	
		MANAGEMENT.		Y	Diagnosis and clinical features of NIHL	
12.	4.10	MYRINGOPLASTY AND TYMPANOPLASTY	LECTURE CLASS	K	Indications ,procedure & complications of myringoplasty	1 hours
				KH	Indications , types / procedure of Tympanoplasty	
				Y	Difference b/w Myringoplasty & Tympanoplasty	
13.	4.11	INDICATIONS AND STEPS OF MASTOIDECTOMY	LECTURE CLASS	KS	Types of Mastoidectomy	1 hours
				KH	Indications of cortical mastoidectomy	
				Y	Indications of canal down mastoidectomy	

14.	4.28	ELICIT CORRECT HISTORY, CLINICAL FEATURES AND MANAGEMENT OF VASO MOTOR AND ALLERGIC RHINITIS	LECTURE CLASS	KS	Etiopathogenesis, clinical features & management of vasomotor rhinitis	1 hours
				SH	Etiopathogenesis clinical features & management of allergic rhinitis	
				Y	Difference b/w allergic rhinitis and vasomotor rhinitis	
15.	4.24	INDICATIONS & STEPS OF SEPTOPLASTY AND SMR	LECTURE CLASS	KS	Indications, contraindication, procedure and complications of SMR	1 hours
				K, SH	Indications, contraindication, procedure and complications OF SEPTOPLASTY	
				Y	Difference b/w Septoplasty and SMR	

16.	4.27	ELICIT CORRECT HISTORY, CLINICAL FEATURES AND MANAGEMENT OF NASAL POLYPOSIS	LECTURE CLASS	KS	Etiopathogenes is clinical features & management of Antrochoanal polyposis	1 hours
				SH	Etiopathogenes is clinical features & management of Ethmoidal polyposis	
				Y	Difference b/w Ethmoidal & Antrochoanal polyps	
17.	4.45	SURGICAL ANATOMY OF NERVE SUPPLY TO VOCAL CORDS.	LECTURE CLASS	KS	Anatomy vocal cord & recurrent laryngeal nerve	1 hours
		CLASSIFICATION OF VOCAL CORD PALSY		K	Causes of vocal cord paralysis	
		MANAGEMENT OF VOCAL CORD PALSY		Y	Physiology of voice production	
18.	4.37	DESCRIBE CLINICAL FEATURES AND MANAGEMENT OF LUDWIGS ANGINA	LECTURE CLASS	K	Definitions of LUDWIGS ANGINA	1 hours
				KH	Causes and clinical features	
				Y	Management of LUDWIGS ANGINA	



19.	4.4	INDICATIONS AND SURGICAL STEPS OF TONSILLECTOMY / ADENOIDECTOMY	LECTURE CLASS	K	Indications, contraindication & complications of Adenoidectomy	1 hours
				K	Indications, contraindication & complications of Tonsillectomy	
				Y	Different methods used for tonsillectomy and adenoidectomy	
20.	4.43	SURGICAL ANATOMY OF LARYNX	LECTURE CLASS		Causes, clinical features and treatment of acute laryngitis/ croup, epiglottitis	1 hours
		CLINICAL FEATURES AND MANAGEMENT OF LARYNGITIS			causes, clinical features and treatment of chronic laryngitis	
				Y	Tuberculosis of larynx	

21.	4.44	DIAGNOSIS AND MANAGEMENT OF BENIGN LESIONS OF V.C	LECTURE CLASS	K	Vocal nodules - causes and management	1 hours
				KH	Vocal polyp – causes and management	
				Y	Congenital lesions of vocal cord	
22.	4.47	DESCRIBE CAUSES OF AND MANAGEMENT OF STRIDOR IN CHILDREN	LECTURE CLASS	K	Definitions of stridor and types &	1 hours
				KH	Causes of Stridor	
				Y	Management of stridor – Medical and surgical	
23.	4.50 , 4.51	INDICATIONS AND COMPLICATION OF TRACHEOSTOMY AND POST OPERATIVE CARE	LECTURE CLASS	SH	Definition and types TRACHEOSTOMY	1 hours
				KH	Indications, procedure and complications	
				Y	Post Tracheostomy Care	
24.	3.2	DIAGNOSTIC NASAL ENDOSCOPY	LECTURE CLASS	SH	DNE- Passes of endoscopy	1 hours
				KH	Indications of FESS	
				N	Complications of FESS	

25.	2.13	IDENTIFY , RESUSCITATE AND MANAGE ENT EMERGENCY CONDITIONS	LECTURE CLASS	K/S/A	Foreign body Aerodigestive tract & its management	1 hours
				SH	Stridor & its management	
				Y	Acute invasive fungal sinusitis	

Sl. No.	Topic/ System	Core (Y/N)	Competency Number	Small group teaching	No. of Hours 40 HOURS
1.	Describe the clinical features, investigations and principles of management of Otosclerosis	Y	EN4.13	Small group teaching	2 hours
2.	Describe the clinical features, investigations and principles of management of Tinnitus	Y	EN4.21	Small group teaching	2 hours
3.	Enumerate the indications observe and describe the steps in a septoplasty	Y	EN4.24	Small group teaching	2 hours
4.	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	Y	EN4.26	Small group teaching	2 hours
5.	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of	Y	EN4.28	Small group teaching	2 hours

	management of squamosal type of Vasomotor Rhinitis				
6.	Describe the clinical features, investigations and principles of management of trauma to the face & neck	N	EN4.31	Small group teaching	2 hours
7.	Describe the clinical features, investigations and principles of management of diseases of the Salivary glands	N	EN4.36	Small group teaching	2 hours
8.	Describe the clinical features, investigations and principles of management of Ludwig's angina	Y	EN4.37	Small group teaching	2 hours
9.	Describe the clinical features, investigations and principles of management of Acute & chronic abscesses in relation to Pharynx	Y	EN4.41	Small group teaching	2 hours
10.	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	Y	EN4.42	Small group teaching	2 hours
11.	Describe the clinical features, investigations and principles of management of Benign lesions of the vocal cord	Y	EN4.44	Small group teaching	2 hours
12.	Describe the clinical features, investigations and principles of management of Stridor	Y	EN4.47	Small group teaching	2 hours

13.	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	Y	EN4.48	Small group teaching	2 hours
14.	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	Y	EN4.49	Small group teaching	2 hours
15.	Observe and describe the indications for and steps involved in tracheostomy	Y	EN4.50	Small group teaching	2 hours
16.	Describe the Clinical features, Investigations and principles of management of diseases of Oesophagus	N	EN4.52	Small group teaching	2 hours
17.	Describe the clinical features, investigations and principles of management of HIV manifestations of the ENT	N	EN4.53	Small group teaching	2 hours
18.	Describe the components and functions of waldeyer's lymphatic ring	Y	AN36.2	Small group teaching	2 hours
19.	Describe and discuss perception of smell and taste sensation	Y	PY10.13	Small group teaching	2 hours
20.	Describe and discuss functional anatomy of ear and auditory pathways & physiology of hearing	Y	PY10.15	Small group teaching	2 hours

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number)</b>	<b>Core</b>	<b>Self Directed Learning</b>	<b>No. of Hours</b>
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 Otagia (EN 4.1)		SDL	1 hour
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 ( EN 4.2)		SDL	1 hour
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 (EN 4.3)		SDL	1 hour
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 (EN 4.4)		SDL	1 hour
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 (EN4.5)		SDL	1 hour

**12. PRACTICALS**  
**d) Bedside Clinics:**

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Bedside Clinics/DOAP</b>	<b>No. of Hours</b>
1.	Demonstrate the correct use of a headlamp in the examination of the ear, nose and throat( EN 2.2)	DOAP	2hours
2.	Demonstrate the correct use of a headlamp in the examination of the ear, nose and throat( EN 2.2)	DOAP	2hours
3.	Demonstrate the correct technique of performance and interpret tuning fork tests (EN 2.4)	DOAP	2hours
4.	Demonstrate the correct technique for syringing wax from the ear in a simulated environment (EN4.9)	DOAP	2hours
5.	Observe and describe the indications for and steps involved myringotomy and myringoplasty ( EN 4.10)	DOAP	2hours
6.	Demonstrate the correct technique of examination of the nose & Paranasal sinuses including the use of nasal speculum( EN2.5	DOAP	2hours
7.	Enumerate the indications observe and describe the steps in a Septoplasty(EN4.24)	DOAP	2hours

<b>8.</b>	Observe and describe the indications for and steps involved in a tonsillectomy / adenoidectomy (EN4.40)	DOAP	2hours
<b>9.</b>	Observe and describe the indications for and steps involved in Tracheostomy (EN4.50)	DOAP	2hours
<b>10.</b>	Observe and describe the care of the patient with a tracheostomy (EN4.51)	DOAP	2hours

**e) Skill Lab:**

<b>S.No</b>	<b>Skill</b>	<b>T-L Method</b>	<b>Assessment &amp; Grading</b>	<b>Number of batches [number of students per batch]</b>
1.	Aural Syringing (Student should be able to perform the skill under supervision and remove wax/ Foreign body from external auditory canal.)			<b>4 -6 students in each batch</b>
2.	Using of Thudicum Nasal Speculum (Should use the instrument and demonstrate its use in anterior rhinoscopy. )			<b>4 -6 students in each batch</b>
3.	Examination of PNS (Should demonstrate different sites for sinus tenderness)			<b>4 -6 students in each batch</b>
4.	Usage of bull's eye lamp in ENT examination (Should demonstrate the correct			<b>4 -6 students in each</b>



	method of using bull's eye lamp for ENT examination.)			<b>batch</b>
5.	Diagnostic Nasal Endoscopy (Should know its uses and advantages.)			<b>4 -6 students in each batch</b>
6.	Palpation of neck (Should be able to correctly demonstrate palpation of neck and able to tell findings.)			<b>4 -6 students in each batch</b>
7.	Otoscopy (To visualize and identify different structures of normal and diseased tympanic membrane)			<b>4 -6 students in each batch</b>
8.	Tuning Fork Tests (Student should know to differentiate between different types of hearing loss, based on tuning fork test.)			<b>4 -6 students in each batch</b>
9.	Dix hallpike's maneuver (Student should be able to perform the test and interpret its results)			<b>4 -6 students in each batch</b>
10.	Anterior Nasal Packing (Student is expected to learn this skill, they should demonstrate the method)			<b>4 -6 students in each batch</b>

**f) Certifiable Skills:**

<b>Comp no.</b>	<b>Competency Description [ P ]</b>	<b>No. required to certify</b>	<b>Duration hours</b>	<b>Number of batches[number of students per batch]</b>
1.	Using of Thudicum Nasal Speculum ( Should use the instrument and demonstrate its use in anterior rhinoscopy.)		1 hour	4 -6 students in each batch

2.	Usage of bull's eye lamp in ENT examination ( Should demonstrate the correct method of using bull's eye lamp for ENT examination)		1 hour	4 -6 students in each batch
3.	Diagnostic Nasal Endoscopy ( Should know its uses and advantages.)		1 hour	4 -6 students in each batch
4.	Otoscopy ( To visualize and identify different structures of normal and diseased tympanic membrane.)		1 hour	4 -6 students in each batch
5.	Dix hallpike's maneuver ( Student should be able to perform the test and interpret its results)		1 hour	4 -6 students in each batch

### 13. AETCOM AND SKILL LAB

Sl. No.	Module Number	AETCOM/Skill Lab	Lectures	Small group	No. of Hours
		AETCOM			5
		Skill Lab			5
		<b>Total</b>			<b>10</b>

SL.NO	COMPETENCY NO	COMPETENCY DESCRIPTION	SUGGESTED TEACHING LEARNING METHOD	LEVEL K/KH/SH/P	ASSESSMENT METHOD	SIGNATURE OF THE STAFF & DATE
1.	EN4.39	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of	SGD DOAP	SH	Demonstration on Patient	

		management of Acute & Chronic Tonsillitis				
2.	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 Nasal Obstruction	SGD DOAP	SH	Demonstration on Patient	
3.	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 Adenoids	SGD DOAP	SH	Demonstration on Patient	
4.	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 Acute & Chronic Sinusitis	SGD DOAP	SH	Demonstration on Patient	
5.	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.	SGD DOAP	SH	Demonstration on Patient	
6.	EN4.8	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe	SGD DOAP	SH	Demonstration on Patient	

		the principles of management of squamosal type of CSOM				
7.	EN4.9	Demonstrate the correct technique for syringing wax from the ear in a simulated environment	SGD DOAP	SH	On Mannequin	
8.	PY10.16	Describe and discuss pathophysiology of deafness. Describe hearing tests (Tuning Fork Tests)	SGD DOAP	KH	Demonstration on Patient	
9	PE28.10	Perform otoscopic examination of the ear	SGD DOAP	SH	Demonstration on Patient	
10	PE28.11	Perform throat examination using tongue depressor	SGD DOAP	SH	Demonstration on Patient	
11	PE28.12	Perform examination of the nose	SGD DOAP	P	Demonstration on Patient	

**NOTE:** The above table containing teaching hours assigned to different topics under large and small group teaching may be used as a guide by the Institute.

## 6. SCHEME OF EXAMINATION:

### Eligibility criteria:

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

## FORMATIVE ASSESSMENT

### THEORY INTERNAL ASSESSMENT:

- A minimum of 2 Internal Assessments (IAs) to be conducted
- One of the internal exams will be conducted like preliminary exams
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]
- Written exams will include MCQ's[MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30%of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

**The distribution of internal assessment marks shall be as mentioned below:**

<b>DEPARTMENT OF ENT</b>					
Integrated phase-wise Internal Assessment					
<b>THEORY</b>		<b>Phase 3-1</b>			<b>Final Total</b>
		<b>IA-1</b>	<b>IA-2</b>	<b>IA-3 Preliminary Exam</b>	
<b>Written</b>	<b>Theory</b>	50	75	75	
	<b>MCQ</b>	10	20	20	
	<b>AETCOM*</b>	--	05	05	
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05	05	10	
	<b>Logbook</b>	05	05	10	
<b>Total</b>		<b>70</b>	<b>110</b>	<b>120</b>	<b>300</b>
<b>FINAL THEORY IA MARKS = 100 (divide final total by 3)</b>					
* To be included as a question in theory paper					
ENT has no theory classes in Phase 2					

### Blue-printing of Internal assessments in ENT

BLUEPRINT	Number of questions		
	IA-1	IA -2	IA-2 Preliminary Exam*
<b>MCQ</b> (1 mark each)	10	20	20
<b>Structured Long Essay</b> (10 marks each)	01	02	02
<b>Short Essay</b> (5 marks each)	04	08	08
<b>Short Answer</b> (2 marks each)	10	10	10
<b>Total</b> <b>(in marks)</b>	<b>60</b>	<b>100</b>	<b>100</b>
<b>* AETCOM should have a weightage of 5 marks</b>			

### PRACTICAL INTERNAL ASSESSMENT

- Clinical end posting exams [EOP] will be conducted
- Viva/oral examination should assess approach to clinical context and included in practical IA marks.

### Practicals:

DEPARTMENT OF ENT				
Integrated phase-wise Internal Assessment				
PRACTICAL		Phase 2 4wk posting	Phase 3-1 4wk posting	Final Total
EOP	Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)	30	40	
	Viva-voce (may include AETCOM)	--	10	

<b>Others</b>	<b>Formative assessment (including Clinical- Clerkship)</b>	05	05	
	<b>Logbook/ Record book</b>	05	05	
<b>Total</b>		<b>40</b>	<b>60</b>	<b>100</b>
<b>FINAL EOP<sup>#</sup> IA MARKS = 100 (sum of both EOP's)</b> At least one EOP is to be conducted with OSCE as a part of it. AETCOM may be included as an OSCE station or as a part of viva-voce during EOP, if it needs to be assessed in practical (Refer competency booklet & AETCOM module) <b>Preliminary Examinations will include Bedside Clinical Examination which will mirror          the Summative University Examinations (Practical)</b>				
<b>FINAL PRACTICAL IA MARKS WILL BE AVERAGE OF EOP<sup>#</sup> AND PRELIMINARY EXAM          (EQUAL WEIGHTAGE TO BOTH)</b>				

### **B. SUMMATIVE ASSESSMENT:**

Otorhinolaryngology is learnt and assessed during professional years [PY] 2 and 3 part 1. SA will be held at the end of 3<sup>rd</sup> professional year part 1.

#### **Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University as the case may be prior to the declaration of his/her results in that particular phase. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

## MARKS DISTRIBUTION FOR UNIVERSITY SUMMATIVE EXAMINATION

THEORY			THEORY TOTAL	PRACTICAL		total
	Written paper	MCQ's		Practical	Viva	
Paper 1	80	20	<b>100</b>	80	20	100
Total marks			<b>100</b>	Total marks		<b>100</b>

Time: 3 hours for theory paper

The pattern of questions in theory paper shall be as mentioned below:

Type of Question	Number of Questions	Maximum Marks for each question	Total
Structured Long essay questions (SLEQ)	2	10	20
Short essay questions (SEQ) (includes case vignette based questions)	8	05	40
Short answer questions (SAQ)	10	02	20
Multiple Choice Questions (MCQs)	20	01	20
Total marks			100

The question papers shall be based on the blue print of question paper setting.



**Blueprint for the theory examinations (For use by the question paper setter)**

PAPER TOPICS	Weightage of marks as per SDMU guidelines Paper 1	Weightage of marks as per SDMU guidelines Paper 2	MCQs 1 mark each	SLEQs 10 marks each	SEQs 5 marks each	SAQs 2 marks each	Total Marks*
MCQs	20	20					
AETCOM	SEQ Case vignette based 05	SEQ Case vignette based 05					
<b>TOTAL</b>	<b>100</b>	<b>100</b>					

\*Total marks include MCQs.

The weightage of marks allotted for each topic shall be strictly adhered to while setting a question paper. A minimum OF 10% and up to a maximum of 30% marks shall be allocated to assess the higher order thinking of the learner.

The questions framed shall be with appropriate verbs without any ambiguity or overlap.

*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.*

**PRACTICAL SUMMATIVE EXAMINATION: TOTAL 100 MARKS**

**Practical Exercises: 80 MARKS**

- A. Case: 1 : 40 Marks
- Case: 2 : 40 Marks
- B. Practical Viva Voce : 20 MARKS
- Total : 100 MARKS

## 7. **INTEGRATION:**

- May be conducted in the form of sharing/nesting/correlation using CBL/PBL/ Case study approach and involving various departments concerned while preparing the specific learning objectives of the integration topics.
- Department involved may be chosen according to the topic and may be conducted as Horizontal/ Vertical form of integration as per the CBME document.

Competency list for integration					
SL	Comp No.	Competency to be integrated	nesting/ sharing/ aligning /correlation	Integrating department	
				Horizontal	Vertical
1					
2					
3					

Sl.no	Competency No.	Competency Description	Type of T/L Session (Lecture/SGD/SDL)	INTEGRATION WITH DEPARTMENT	SLOs
1.	1.1	ANATOMY OF NASAL SEPTUM AND ITS BLOOD SUPPLY	LECTURE CLASS	PHYSIOLOGY	Student should know Anatomy and Physiology of nose
		SURGICAL ANATOMY OF LATERAL WALL OF NOSE			Student should know about structure and functions of nose
		MUCOCILIARY CLEARANCE OF NOSE AND FUNCTIONS OF NOSE (PHYSIOLOGY)			Student should be able to identify existence of abnormality ,by knowing the normal anatomy and physiology

2.	4.18	SURGICAL ANATOMY OF FACIAL NERVE	LECTURE CLASS	OPHTHALMOLOGY	Anatomy of facial nerve in temporal bone
		CAUSES OF LMN TYPE OF FACIAL NERVE PALSY			Clinical features and management of bell's palsy
		MANAGEMENT OF FACIAL WEAKNESS AND PROTECTION OF EYE			Causes f facial palsy
3.	4.3	ANATOMY OF LITTLE'S AREA, WOODRUFF PEXUS	LECTURE CLASS	MEDICINE	Blood supply of nose
		CAUSES AND MANAGEMENT OF EPISTAXIS			Causes of anterior and posterior epistaxis
					Management of epistaxis
4.	4.34	CLASSIFICATIONS OF TUMORS OF NOSE AND PNS	LECTURE CLASS	OPHTHALMOLOGY	Classifications of tumors
		CLINICAL MANIFESTATIONS INCLUDING ORBITAL INVOLVEMENT.			Etiopathogenesis clinical features and management of Ca Maxilla
		MANAGEMENT OF MALIGNANT TUMORS OF MAXILLA			Should know about adenocarcinoma & adenoid cystic carcinoma of nose and paranasal sinuses

					Indications, contraindication & complications of Tonsillectomy
					Different methods used for tonsillectomy and adenoidectomy
5.	4.47	DESCRIBE CAUSES OF AND MANAGEMENT OF STRIDOR IN CHILDREN	LECTURE CLASS	PAEDIATRIC	Definitions of stridor and types &
					Causes of Stridor
					Management of stridor –Medical and surgical
6.	4.50 , 4.51	INDICATIONS AND COMPLICATION OF TRACHEOSTOMY AND POST OPERATIVE CARE	LECTURE CLASS	SURGERY	Definition and types TRACHEOSTOMY
					Indications, procedure and complications
					Post Tracheostomy Care
7.	2.13	IDENTIFY , RESUSCITATE AND MANAGE ENT EMERGENCY CONDITIONS	LECTURE CLASS	OPHTHALMOLOGY	Foreign body Aerodigestive tract & its management
					Stridor & its management
					Acute invasive fungal sinusitis

#### **4. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS**

##### **Text Books:**

1. Logan Turner's Diseases of the Nose, Throat and Ear, Head and Neck Surgery  
*Edited By Musheer Hussain* , Edition 11th Edition , Imprint CRC Press.

2. Mohan Bansal- Essential of Ear Nose & Throat – 1<sup>st</sup>edition ,Publishers- JayPee Brothers Medical Publications.
3. Prof.K K Ramalingam – A short Practice of Otorhinolaryngology – 4<sup>th</sup> edition, All India publishers and distributors
4. P.L Dhingra- Diseases of Ear ,Nose ,Throat and Head& Neck Surgery 6<sup>th</sup> Edition Published by Elsevier, a Division of Reed Elsevier India Private Ltd.
5. K BBhargava – A Short book of ENT Diseases – 11<sup>th</sup> edition ,Publishers: Usha Publication
6. Md. Maqbool Text book of Ear Noseand Throat diseases- 12<sup>th</sup> edition ,Publishers:JayPee Brothers Medical Publications
7. Hazarika P – Text book of Ear,NoseThroat and Head& Neck surgery clinical 4<sup>th</sup> edition , Publisher: C B S Publishers

**Reference books:**

1. John c *Watkinson* Scott –Brown's: Otorhinolaryngology & Head and Neck Surgery 8th edition CRP Press, 3 Volume set
2. Flint, Cummings, Otorhinolaryngology & Head and Neck Surgery 6<sup>th</sup> Edition , 3 Volume set Elsevier Publication

**Journals:**

- Indian journal of Otolaryngology and Head & Neck Surgery.
- Journal of Laryngology & Otology
- Laryngoscope

**Atlas books:**

- Color Atlas On Temporal Bone Dissection: 1st Edition by Honnurappa, Jaypee Brothers Medical Publishers
- Colour Atlas of Ear Disease: 2<sup>nd</sup> Edition by Richard A Chole ,JamesW.Forsen

\*\*\*END\*\*\*

## OBSTETRICS & GYNAECOLOGY

### 1. GOALS:

- To groom a professional doctor who is ethically guided, clinically sound, skilful, empathetic, oriented towards the needs of the community, an inspiring leader and a good communicator.
- To stimulate the interest of the learner towards Obstetrics and Gynaecology and make him/her understands the concepts as well as be able to apply them in clinical setting.
- To hone the skills of the learner so as to gradually upgrade the knowledge of science into the fine art of surgery.

### 2. OBJECTIVES

#### a. Knowledge:

- Understanding of the physiology of pregnancy, principles of diagnosis and management of Obstetric complications.
- Ability to choose, calculate and administer appropriately intravenous fluids, common drugs in pregnancy and labour, blood and blood products based on the clinical condition.
- Ability to apply the principles of asepsis, sterilization, disinfection, rational use of prophylaxis, therapeutic utilities of antibiotics and universal precautions in surgical practice,
- Ability to recognize, resuscitate, stabilize and provide Basic & Advanced Life Support to patients following Obstetric emergencies.
- Ability to administer informed consent and counsel patient prior to surgical procedures in Obstetrics and Gynaecology, and to patients in Obstetric shock.
- Commitment to advancement of quality and patient safety in surgical practice.

**b. Skill:**

- Ability to obtain a thorough history from the patient,
- To perform a complete general physical examination of the patient,
- To perform obstetric examination in a pregnant woman and gynaecological examination in a non-pregnant woman.
- Ability to write a detailed and accurate case sheet (Case record).

**c. Integration:**

- To deliver teaching that is aligned and integrated horizontally and vertically in order to provide a sound biologic basis and a holistic approach to the care of the pregnant and non-pregnant women.

**3. TEACHING HOURS AND COURSE CONTENT**

**II. Teaching Hours**

<b>Sl. No</b>	<b>Teaching Learning Method Theory</b>	<b>No. of Hours</b>
1	Large group teaching	25
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	35
3	Self-directed Learning( SDL)	05
	<b>TOTAL</b>	<b>65</b>

<b>Sl. No</b>	<b>Teaching Learning Method Practicals</b>	<b>No. of weeks</b>
1	Bedside clinics	4
	<b>TOTAL</b>	

<b>Sl. No</b>	<b>Teaching Learning Method</b>	<b>No. of Hours</b>
1	AETCOM	
2	Skill Lab	
	<b>TOTAL</b>	

### III. Course Contents

#### 14. THEORY (Large and small group teaching)

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Lecture (Large group)	No. of Hours
1.	OG 1.1 & 1.2 Demographic and vital statistics -- birth rate, Maternal mortality and morbidity Define and discuss perinatal mortality and morbidity including perinatal and neonatal mortality and morbidity audit		1 hour
3.	OG 8.7 Enumerate the indications for and types of vaccination in pregnancy		1 hour
4.	OG 8.8 Enumerate the indications and describe the investigations including the use of ultrasound in the initial assessment and monitoring in pregnancy. 5. OG 10.1 Define, classify and describe the etiology, pathogenesis, clinical features, ultrasonography, differential diagnosis and management of antepartum hemorrhage. 1 hour		1 Hour
6.	OG 13.2 Define; describe the causes, pathophysiology, diagnosis, investigations and management of preterm labor, PROM and postdated pregnancy.		1 hour



7.	OG 15.1 Enumerate and describe the indications and steps of common obstetric procedures, technique and complication; episiotomy, vacuum extraction, low forceps, caesarean section, assisted breech delivery, external cephalic version, cervical cerclage.		3 hours
8.	OG.18.3 Describe and discuss the diagnosis of birth asphyxia		1 hour
9.	OG 19.1 Describe and discuss the physiology of puerperium, its complications, diagnosis and management, counseling for contraception, puerperal sterilization		1 hour
10.	OG 20.1 Enumerate the indications and describe and discuss the legal aspects, indications, methods for first and second trimester MTP, complications and management of complications of Medical termination of pregnancy.		2 hours
11.	OG 21.1& 21.2 Describe and discuss the temporary and permanent methods of contraception, indications, techniques and complications; selection of patients, side effects and failure rate including OC pills, male contraception, Emergency contraception and IUCD. Enumerate the indications of PPIUCD.		3 hours

12.	OG 24.1 Define, classify and discuss abnormal uterine bleeding, its etiology, clinical features, investigations, diagnosis and management.		1 hour
13.	OG 25.1 Describe and discuss the causes of primary and secondary amenorrhea, its investigations and principles of management.		1 hour
14.	OG.26.2 Describe the causes, prevention, clinical features, principles of management of genital injuries and fistulae.		1 hour
15.	OG 27.4 Describe and discuss the etiology, pathology, clinical features, differential diagnosis, Investigations, management and long term implications of pelvic inflammatory disease.		1 hour
16.	OG 29.1 Describe and discuss the etiology, pathology clinical features; complications of fibroid uterus.		1 hour
17.	OG 30.1 Describe and discuss the etiopathogenesis, clinical features of PCOS.		1 hour
18.	OG 31.1 Describe and discuss the etiology, classification and clinical diagnosis of prolapse uterus		1 hour

19.	OG 33.1 Classify, describe, and discuss etiology, pathology, clinical features, staging of carcinoma cervix.		1 hour
20.	OG 34.1 Describe and discuss etiology, pathology, staging clinical features, differential diagnosis investigations, staging laparotomy and principles of management of endometrial cancer.		1 hours
21.	OG 34.2 Describe and discuss the etiology, pathology, classification, staging and clinical features of ovarian cancer.		1 hours

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Small group teaching</b>	<b>No. of Hours</b>
1.	OG 9.3 Discuss the etiology, clinical features, differential diagnosis of acute abdomen in early pregnancy (with a focus on ectopic pregnancy) and enumerate the principles of medical and surgical management.		1 hour
2.	OG 9.4 Clinical features, laboratory investigations, ultrasonography, differential diagnosis, principles of management and follow up of gestational trophoblastic neoplasms		1 hour

3.	OG 10.2 & 16.1 Enumerate the indications and describe the appropriate use of blood and blood products, use in postpartum hemorrhage, their complications and management.		1 hour
	<b>ASSESSMENT- MCQ</b>		<b>1 hour</b>
4.	OG 12.7 Describe and discuss screening, risk factors, management of mother and newborn with HIV.		1 hour
5.	OG 13.1 Enumerate and discuss the physiology of normal labor, mechanism of labor in occiput anterior presentation, monitoring of labor including partogram, conduct of labor, pain relief, and principles of Induction and acceleration of labor, management of third stage of labor.		1 hour
6.	OG 14.2 Discuss the mechanism of normal labor. Define and describe obstructed labor, its clinical features; prevention and management.		1 hour
7.	OG 14.4 Describe and discuss the classification, diagnosis and management of abnormal labor.		1 hour
	<b>ASSESSMENT- MCQ</b>		<b>1 hour</b>
8.	OG 17.2 Counsel in a simulated environment care of breast , importance & technique of breast feeding		1 hour

9.	OG 22.2 Describe and discuss the etiology with special emphasis on candida, T vaginitis, bacterial vaginosis and syndromic management.		1 hour
	<b>ASSESSMENT-MCQ</b>		<b>1 hour</b>
10.	OG 28.1 Describe and discuss the common causes, pathogenesis, clinical features, differential diagnosis, Investigations, principles of management of infertility and methods of tubal patency.		1 hour
11.	OG 33.3 Describe and demonstrate the screening for cervical cancer in simulated environment.		1 hour
12.	OG 33.4 Enumerate methods of prevention of cancer of cervix including VIA, VILLI, colposcopy.		1 hour
	<b>ASSESSMENT-MCQ</b>		<b>1 hour</b>
13.	OG 34.4 Operative Gynecology: Understand and describe the technique and complications: Dilatation & Curettage (D &C) EA- ECC: Cervical biopsy: Abdominal hysterectomy: myomectomy: surgery for ovarian tumors; staging laparotomy; hysteroscopy; management of postoperative complications.		2 hours
14.	OG 13.4 Demonstrate the stages of normal labor in simulated environment/ manikin		1 hour

15.	OG 13.5 Observe and assist the conduct of a normal vaginal delivery		1 hour
16.	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.		1 hour
	<b>ASSESSMENT=MCQ</b>		<b>1 hour</b>
17.	OG 40.1 Describe etiology, diagnosis and management of fever in pregnancy and its impact on pregnancy (DENGUE, MALARIA, and COVID-19).		2 hours
	<b>ASSESSMENT-MCQ</b>		<b>1 hour</b>

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Self-Directed Learning</b>	<b>No. of Hours</b>
1. OG 9.1	Classify, define and discuss the etiology and management of abortions including threatened, incomplete, inevitable, missed and septic abortions		1 hour
2. OG 20.1	Discuss the indications of MTP and the MTP act and methods of MTP.		1 hour
3. OG 33.4	Discuss the methods to prevent cancer cervix including primary and secondary prevention.		1 hour
4. OG	Describe and discuss the etiology with special emphasis on candida, T vaginitis, bacterial		1 hour

22.2	vaginosis and syndromic management.		
5. OG 21.1	Describe and discuss the temporary and permanent methods of contraception, indications techniques and complications; selection of patients, side effects and failure rate including OC pills, male contraception, Emergency contraception and IUCD.		1 hour

## 15. PRACTICALS

### g) Bedside Clinics:

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Bedside Clinics/DOAP	No. of Hours
1	OG 10.1 Define, classify & describe the etiology, pathogenesis, clinical features, ultrasonography, differential diagnosis and management of antepartum hemorrhage	wards	3 hours
2.	OG 10.2 Define, classify and describe the etiology and pathophysiology, early detection, investigations, principles of management of hypertensive disorders of pregnancy and eclampsia ,complications of eclampsia	wards	3 hours
3.	OG 17.2 Counsel in a simulated environment care of breast , importance & technique of breast feeding	wards	1 hour
4.	OG 19.1 Describe and discuss the physiology of puerperium, its complications, , counseling	wards	1 hour

	for contraception, puerperal sterilization		
<b>5.</b>	OG 24.1 Define, classify and discuss abnormal uterine bleeding, its etiology, clinical features, investigations, diagnosis and management	<b>wards</b>	<b>3 hours</b>
<b>6.</b>	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>wards</b>	<b>3 hours</b>
<b>7.</b>	OG 29.1 Describe and discuss the etiology, clinical features; complications of fibroid uterus	<b>wards</b>	<b>3 hours</b>
<b>8.</b>	OG 31.1 Describe and discuss the etiology, classification, clinical diagnosis, investigations, principles of management and preventive aspects of prolapse of uterus	<b>wards</b>	<b>3 hours</b>
<b>9.</b>	OG 34.1 Describe and discuss etiology, pathology, staging clinical features, differential diagnosis investigations, staging laparotomy and principles of management of endometrial cancer	<b>wards</b>	<b>3 hours</b>
<b>10.</b>	OG 34.2 Describe and discuss the etiology, pathology, classification, staging of ovarian cancer, clinical features, differential diagnosis,	<b>wards</b>	<b>3 hours</b>



	investigations, principal of management including staging laparotomy.		
<b>11.</b>	OG 35.2 Arrive at a logical provisional diagnosis after examination	<b>wards</b>	<b>3 hours</b>
<b>12.</b>	OG 8.4 Describe and demonstrate clinical monitoring of fetal and maternal well-being	<b>Labor room</b>	<b>1 hour</b>
<b>13.</b>	OG 10.2 Enumerate the indications and describe the appropriate use of blood and blood products, their complications and management. Uses in PPH.	<b>Labor room</b>	<b>1 hour</b>
<b>14.</b>	OG 13.1 Enumerate and discuss the physiology of normal labor, mechanism of labor in occiput anterior presentation, monitoring of labor including partogram, conduct of labor, pain relief, principles of Induction and acceleration of labor, management of third stage of labor	<b>Labor room</b>	<b>2 hours</b>
<b>15.</b>	OG 13.2 Define, Describe the causes, diagnosis, investigations and management of preterm labor, PROM and postdated pregnancy	<b>Labor room</b>	<b>1 hour</b>
<b>16.</b>	OG 14.2 Discuss the mechanism of normal labor. Define and describe obstructed labor, its clinical features; prevention and management.	<b>Labor room</b>	<b>2 hours</b>
<b>17.</b>	OG 14.4 Describe and discuss the classification, diagnosis and management of abnormal labor	<b>Labor room</b>	<b>1 hour</b>

<b>18.</b>	OG 18.3 Describe and discuss the diagnosis of birth asphyxia	<b>Labor room</b>	<b>1 hour</b>
<b>19.</b>	OG 20.1 Enumerate the indications and describe and discuss the legal aspects, indications, methods for first and second trimester MTP, complications and management of complications of medical termination of pregnancy.	<b>Labor room</b>	<b>1 hour</b>
<b>20.</b>	OG 19.4 Enumerate the indications for ,Describe the steps in insertion and removal of an intrauterine device in simulated environment	<b>OPD</b>	<b>2 hours</b>
<b>21.</b>	OG 8.8 Enumerate the indications and describe the investigations including the use of ultrasound in the initial assessment and monitoring in pregnancy.	<b>OPD</b>	<b>1 hour</b>
<b>22.</b>	OG 21.1 Describe and discuss the temporary and permanent methods of contraception, indications techniques and complications; selection of patients, side effects and failure rate including OC pills, male contraception, Emergency contraception and IUCD.	<b>OPD</b>	<b>2 hours</b>
<b>23.</b>	OG 22.2 Describe and discuss the etiology with special emphasis on candida, T vaginalis, bacterial vaginosis and syndromic management.	<b>OPD</b>	<b>1 hour</b>

<b>24.</b>	OG 15.1 Enumerate and describe the indications and steps of common obstetric procedures, technique and complication; episiotomy, vacuum extraction, low forceps, caesarean section, assisted breech delivery, external cephalic version, cervical cerclage.	<b>Operative theatre</b>	<b>3 hours</b>
<b>25.</b>	OG 18.3 Describe and discuss the diagnosis of birth asphyxia	<b>Operative theatre</b>	<b>1 hour</b>
<b>26.</b>	OG 21.2 Describe and discuss PPIUCD programme.	<b>Operative theatre</b>	<b>1 hour</b>
<b>27.</b>	OG 34.4 Operative Gynecology: Understand and describe the technique and complications: Dilatation & Curettage (D &C) EA- ECC: Cervical biopsy: Abdominal hysterectomy: myomectomy: surgery for ovarian tumors; staging laparotomy; hysteroscopy; management of postoperative complications.	<b>Operative theatre</b>	<b>3 hours</b>
<b>28.</b>	OG 19.3 Observe and Assist in performance of tubal ligation	<b>Operative theatre</b>	<b>1 hour</b>

#### **h) Skill Lab:**

<b>Comp no.</b>	<b>Competency Description [ P]</b>	<b>No. required to certify</b>	<b>Duration Hours</b>	<b>Number of batches[number of students per batch]</b>
OG 35.3	Recognize situations, which	nil	1 hour	7 to 10

	call for urgent or early treatment at secondary and tertiary centers and make a prompt referral of such patients after giving first aid or emergency treatment			
OG 35.12	Obtain a PAP smear in a simulated environment	nil	30 minutes	7 to 10
OG 35.13	Demonstrate the correct technique to perform artificial rupture of membranes in a simulated/ supervised environment	nil	1 hour	7 to 10
OG 35.14	Demonstrate the correct technique to perform and suture episiotomy in a simulated/ supervised environment	nil	1 hour	7 to 10

OG 36.2	Organize antenatal, postnatal well-baby and family welfare clinics	nil	1 hour	7 to 10
OG.36.3	Demonstrate the correct technique of punch biopsy of cervix in a simulated/ supervised environment	nil	30 minutes	7 to 10
<b>Total</b>	<b>6</b>		<b>5 hours</b>	

**i) Certifiable Skills:**

Comp no.	Competency Description [ P]	Need for Skill lab [yes/no]	No. required to certify	Duration hours	Number of batches[number of students per batch]
OG 37.1	Observe and assist in the performance of a caesarean section	no	At least one	1 hour	
1.	List any 5 Indications for CS				
2.	Identify the Instruments for CS				
3.					

	Assist/observe 5 CS and document it correctly in the logbook				
OG 37.4	Observe/assist in the performance of D/C ,at least 2 procedures and document	no	At least two	1 hour	
OG 37.5	Observe/assist in Fractional curettage, EB, ECC, at least 1 procedure	no	At least One	1 hour	
OG 37.6	Observe/assist in at least 1 forceps, 1 vacuum, 1 breach delivery	no	At least One	1 hour	
<b>Total</b>					

## 16. AETCOM AND SKILL LAB

Sl. No.	Module Number	AETCOM/Skill Lab	Lectures	Small group	No. of Hours
1.	The foundations of communication 4	AETCOM	1 hour	3 hours	4 hours

**NOTE:** The above table containing teaching hours assigned to different topics under large and small group teaching may be used as a guide by the Institute.

## 7. SCHEME OF EXAMINATION:

### Eligibility criteria:

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

## FORMATIVE ASSESSMENT

### THEORY INTERNAL ASSESSMENT:

- A minimum of 2 Internal Assessments (IAs) to be conducted
- One of the internal exams will be conducted like preliminary exams
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]

- Written exams will include MCQ's[MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30%of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

**The distribution of internal assessment marks shall be as mentioned below:**

<b>DEPARTMENT OF OBG</b>								
Integrated phase-wise Internal Assessment								
<b>THEORY</b>		<b>Phase 2</b>		<b>Phase 3-1</b>		<b>Phase 3-2</b>		<b>Final Total</b>
		<b>IA-1</b>	<b>IA-2</b>	<b>IA-3</b>	<b>IA-4</b>	<b>IA-5</b>	<b>IA-6</b>	
<b>Written</b>	<b>Theory</b>	30	25	30	25	50	75	
	<b>MCQ</b>	10	10	10	10	10	20	
	<b>AETCOM*</b>	--	05	--	05	--	05	
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05	05	05	05	10	10	
	<b>Logbook</b>	05	05	05	05	10	10	
<b>Total</b>		<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>80</b>	<b>120</b>	
<b>FINAL THEORY IA MARKS = 200 (final total divided by 2)</b>								
* To be included as a question in theory paper								
IA-6 is Preliminary exam and hence to be conducted as two theory papers of 100 marks each, and average of both papers is used for tabulation								



## Blue-printing of Internal assessments in OBG

BLUEPRINT	Number of questions						
	IA-1	IA-2*	IA-3	IA-4*	IA-5	IA-6 Preliminary Exam*	
						Paper 1	Paper 2
<b>MCQ</b> (1 mark each)	10	10	10	10	10	20	20
<b>Structured Long Essay</b> (10 marks each)	00	00	01	01	01	02	02
<b>Short Essay</b> (5 marks each)	04	04	02	02	04	08	08
<b>Short Answer</b> (2 marks each)	05	05	05	05	10	10	10
<b>Total</b> (in marks)	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>60</b>	<b>100</b>	<b>100</b>
<b>*AETCOM should have a weightage of 5 marks</b>							

### PRACTICAL INTERNAL ASSESSMENT

- Clinical end posting exams [EOP] will be conducted
- Viva/oral examination should assess approach to clinical context and included in practical IA marks.

### Practicals:

<b>DEPARTMENT OF OBG</b>						
Integrated phase-wise Internal Assessment						
<b>PRACTICAL</b>		<b>Phase 2</b>	<b>Phase 3-1</b>	<b>Phase 3-2</b>		<b>Total</b>
		<b>4 weeks</b>	<b>4 weeks</b>	<b>8 weeks</b>	<b>4 weeks</b>	
		<b>EOP-1</b>	<b>EOP-2</b>	<b>EOP-3</b>	<b>EOP-4</b>	
<b>EOP</b>	<b>Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)</b>	30	30	70	70	
	<b>Viva-voce/ AETCOM</b>	10	10	10	10	
<b>Others</b>	<b>Formative assessment including Clinical-Clerkship</b>	05	05	10	10	
	<b>Logbook/ Record book</b>	05	05	10	10	
<b>Total</b>		<b>50</b>	<b>50</b>	<b>100</b>	<b>100</b>	<b>300</b>
<p><b>FINAL EOP IA MARKS<sup>#</sup> = 200 (final total multiplied by 0.66 and rounding it)</b>            At least one EOP is to be conducted with OSCE as a part of it.            AETCOM may be included as an OSCE station or as a part of viva-voce during EOP, if it needs to be assessed in practical (Refer competency booklet &amp; AETCOM module)  <b>Preliminary Examinations will include Bedside Clinical Examination which will mirror the Summative University Examinations (Practical)</b></p>						
<p><b>FINAL PRACTICAL IA MARKS WILL BE AVERAGE OF EOP<sup>#</sup> AND PRELIMINARY EXAM (EQUAL WEIGHTAGE TO BOTH)</b></p>						

**B. SUMMATIVE ASSESSMENT:**

Obstetrics and gynaecology is learnt and assessed during professional years [PY] 2 and 3 part 1, 3<sup>rd</sup> part 2. SA will be held at the end of 3<sup>rd</sup> professional year part 2.

**Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University as the case may be prior to the declaration of his/her results in that particular phase. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

**8. INTEGRATION:**

<b>Competency list for integration</b>					
<b>SL</b>	<b>Comp No.</b>	<b>Competency to be integrated</b>	<b>nesting/ sharing/ aligning /correlation</b>	<b>Integrating department</b>	
				<b>Horizon tal</b>	<b>Vertical</b>
1	OG 10.2	Enumerate the indications and describe the appropriate use of blood and blood products , their complications and management.	aligning		Yes  Pathology
2	OG 21.1	Describe and discuss the temporary and permanent methods of	aligning		Yes  P and SM

		contraception, indications ,techniques and complications; selection of patients, side effects and failure rate including OC pills, male contraception, Emergency contraception and IUCD.			
3	OG 22.2	Describe and discuss the etiology with special emphasis on candida, T vaginalis, bacterial vaginosis and syndromic management.	aligning		Yes Microbiology
4.	OG 40.1	Describe etiology, diagnosis and management of fever in pregnancy and its impact on pregnancy (DENGUE, MALARIA, and COVID-19).	aligning	Yes General medicine	

## 9. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS

### **Obstetrics :**

1. Mudaliar & Menon, Clinical Obstetrics, Sarala Gopalan, Vanita Jain, 12th edition, University Press.
2. Dutta D.C., Text book of Obstetrics 9<sup>th</sup> edition, Jaypee Publication.
3. Holland and Brews, Textbook of Obstetrics. 4<sup>th</sup> Edition, B. I. Publication, New Delhi,
4. Williams Obstetrics – Cunningham, Bloom, Sponge, et al 25<sup>th</sup> edition, Mc Craw Hill education Publication.
5. Fernando Arias Amarnath Bhide, Savaratanum Arulkumaran et al 5<sup>th</sup> edition, Elsevier publication.
6. Munro Kerr's operative obstetrics, Thomas F, Baskett Andrew, Savratanum Arulkumaran, 12<sup>th</sup> edition, Bailliere Tindall, London.

### **Gynaecology:**

1. Shaw's A Text book of Gynaecology, Padubidri VG, Shirish N Daftary, 17<sup>th</sup> edition, Elsevier publication
2. Dutta DC, Text book of Gynaecology, 8<sup>th</sup> edition,
3. Jeffcoate's Principles of Gynaecology, Pratapkumar, Narendra Malhotra, 9<sup>th</sup> edition, Jaypee publication.
4. Williams Gynaecology Hoffman, John, Joseph et al, 3<sup>rd</sup> edition, Mc Craw Hill education Publication.
5. Shaw's operative Gynaecology, Christopher Hudson, Marcus Setchell, 7<sup>th</sup> edition, Elsevier publication.

\*\*\*END\*\*\*

## GENERAL SURGERY

### 1. GOALS :

- To groom a professional doctor who is ethically guided, clinically sound, skillful, empathetic, oriented towards the needs of the community, an inspiring leader and a good communicator.
- To stimulate the interest of the learner towards surgical diseases and to make him/her understand the concepts as well as be able to apply them in clinical setting.
- To hone the skills of the learner so as to gradually upgrade the knowledge of science into the fine art of surgery.

### 2. OBJECTIVES

- **Knowledge :**
  - Understanding of the structural and functional basis, principles of diagnosis and management of common surgical problems in adults and children,
  - Ability to choose, calculate and administer appropriately intravenous fluids, electrolytes, blood and blood products based on the clinical condition,
  - Ability to apply the principles of asepsis, sterilization, disinfection, rational use of prophylaxis, therapeutic utilities of antibiotics and universal precautions in surgical practice,
  - Ability to recognize, resuscitate, stabilize and provide Basic & Advanced Life Support to patients following trauma,
  - Ability to administer informed consent and counsel patient prior to surgical procedures,
  - Commitment to advancement of quality and patient safety in surgical practice.

- **Skill :**
  - Ability to obtain a thorough history from the patient,
  - To perform a complete general physical examination of the patient,
  - To perform local and systemic examination in a surgical patient.
  - Ability to write a detailed and accurate case sheet (Case record).
  
- **Integration :**
  - To deliver teaching that is aligned and integrated horizontally and vertically in order to provide a sound biologic basis and a holistic approach to the care of the surgical patient.

### 3. TEACHING HOURS AND COURSE CONTENT

#### IV. Teaching Hours

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching	25
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	35
3	Self-directed Learning( SDL)	05
	<b>TOTAL</b>	<b>65</b>

Sl. No	Teaching Learning Method Practicals	No. of Hours
1	Bedside clinics	4
	<b>TOTAL</b>	

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	
2	Skill Lab	
	<b>TOTAL</b>	

## V. Course contents

### vi. THEORY

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Large group teaching domain K LEVEL K/KH,	No. of Hours=25
1	Describe etiopathogenesis of oral cancer symptoms and signs of oropharyngeal cancer	SU20.1	1
2	Enumerate the appropriate investigations and discuss the Principles of treatment of oropharyngeal cancer	SU20.2	1
3	Describe surgical anatomy of the salivary glands, pathology, and clinical presentation of disorders of salivary glands	SU21.1	1
4	Enumerate the appropriate investigations and describe the Principles of treatment of disorders of salivary glands	SU21.2	1
5	Describe the aetiology and classification of cleft lip and palate Describe the Principles of reconstruction of cleft lip and palate.	SU19.1, SU19.2	2
7	Describe applied anatomy and appropriate investigations for breast disease	SU 25.1,	1
8	Describe the etiopathogenesis, clinical features and principles of management of benign breast disease including infections of the breast	SU 25.2	1
9	Describe the etiopathogenesis, clinical features, Investigations and principles of treatment of benign and malignant tumours of breast	SU25.3	2
11	Describe the applied anatomy and physiology of thyroid	SU22.1	1
12	Describe the etiopathogenesis of thyroidal swellings	SU22.2	3
13	Describe the clinical features, classification and principles of management of thyroid cancer	SU22.4	2
14	Describe the applied anatomy of parathyroid	SU22.5	1



15	Describe and discuss the clinical features of hypo - and hyperparathyroidism and the principles of their management	<b>SU22.6</b>	<b>1</b>
16	Describe the applied anatomy of adrenal glands. Describe the aetiology, clinical features and principles of management of disorders of adrenal gland	<b>SU23.1,SU23.2</b>	<b>1</b>
17	Describe the clinical features, principles of investigation and management of Adrenal tumours	<b>SU23.3</b>	<b>1</b>
18	Describe the Principles of FIRST AID Describe the Principles in management of mass casualties	<b>SU 17.1 SU17.3</b>	<b>1</b>
19	Describe Pathophysiology, mechanism of head injuries Describe clinical features for neurological assessment and GCS in head injuries Chose appropriate investigations and discuss the principles of management of head injuries	<b>SU17.4,17.5,17.6</b>	<b>1</b>
20	Describe the pathophysiology of chest injuries. Describe the clinical features and principles of management of Chest injuries.	<b>SU17.8 ,SU17.9</b>	<b>1</b>
21	Outline the role of surgery in the management of coronary heart disease, valvular heart diseases and congenital heart diseases	<b>SU26.1</b>	<b>1</b>
22	Describe the clinical features of mediastinal diseases and the principles of management	<b>SU26.3</b>	<b>1</b>

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Small group teaching domain K/S/A Level K/KH/S/SH,</b>	<b>No. of Hours=35</b>
1	Describe the steps and obtain informed consent in a simulated environment.	<b>SU10.2</b>	AETCOM
2	Demonstrate professionalism and empathy to the patient undergoing general surgery	<b>SU8.2</b>	AETCOM
3	Discuss medico-legal issues in surgical practice.	<b>SU8.3</b>	AETCOM
4	Hypovolemic shock	<b>SU2.1 &amp;2.2</b>	Tutorial
5	Septic shock	<b>SU2.1 &amp;2.2</b>	Tutorial
6	Post-operative surgery fluid management	<b>SU2.1 &amp;2.2</b>	Tutorial
7	Blood transfusion	<b>SU3.1</b>	Tutorial
8	Clinical approach to a case of leg ulcer	<b>SU5.2</b>	Clinical oriented discussion
9	Clinical approach to a case of peripheral vascular disease	<b>SU27.1</b>	Clinical oriented discussion
10	DVT prophylaxis	<b>SU27.2</b>	Tutorial
11	Clinical approach to a case of varicose veins	<b>SU27.6</b>	Clinical oriented discussion
12	Counsel the patient and obtain informed consent for treatment of malignant conditions of the breast	<b>SU25.4</b>	AETCOM
13	Clinical approach to breast lump	<b>SU25.1,2,3</b>	Clinical oriented discussion
14	Management of carcinoma breast	<b>SU25.1,2,3</b>	Tutorial
15	Clinical approach to neck swellings	<b>SU21.1</b>	Clinical oriented

			discussion
16	Clinical approach to solitary nodule of thyroid	SU22.2	Clinical oriented discussion
17	Management of thyrotoxicosis	SU22.2	Tutorial

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Self-directed learning domain K/S/A Level K/KH,	No. of Hours=5
01	Carcinoma Breast	SU25.1,25.2,25.3	1
02	Neck Swelling	SU21.1	1
03	Solitary Nodule Thyroid	SU22.2	1
04	Thyrotoxicosis	SU22.2	1
05	Thyroid Carcinoma	SU22.4	1

### 17. PRACTICAL

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Bedside Clinics/DOAP domain K/S/A Level K/KH/S/SH,	No. of weeks=4
1.	<b>Ulcer:</b> Elicit, document and present a history in a patient presenting with wounds.	<b>SU 5.2</b> (CERTIFY)	Time as required during clinical posting
2.	<b>Swelling:</b> Describe and demonstrate the clinical examination of surgical patient including swelling and order relevant investigation for diagnosis. Describe and discuss appropriate treatment plan.	<b>SU18.3</b> (CERTIFY)	
3.	<b>Peripheral Vascular Disease :</b> Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease(ARTERY)	<b>SU 27.2</b> (CERTIFY in 3-1)	

4	<b>Varicose veins :</b> Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease (VEINS)	<b>SU 27.2</b> (CERTIFY in 3-1)
5	<b>Lymph nodes :</b> Demonstrate the correct examination of the Lymphatic system and enumerate and describe the investigation of Lymph node enlargement	<b>SU27.8</b> (CERTIFY in 3-1)
6	<b>Hernia :</b> Demonstrate the correct technique to examine the patient with hernia and identify different types of hernias.	<b>SU28.2</b> (CERTIFY in 3-1)
7	<b>Scrotal swelling :</b> Demonstrate the correct technique to examine the patient with scrotal swelling and identify different causes for scrotal swelling.	<b>SU30.5,SU30.6</b> (CERTIFY in 3-1) ADD ALL CLINICS
8	<b>GOITRE:</b> Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their management	SU22.3
9	<b>Breast Lump:</b> Demonstrate and document the correct clinical examination of Breast lump and discuss the differential diagnosis and their management	SU25.5
10	<b>MASS ABDOMEN:</b> Describe and demonstrate clinical examination of abdomen. Order Relevant investigations. Describe and discuss appropriate treatment plan	SU28.18
11	<b>OBSTRUCTIVE JAUNDICE</b> Describe and demonstrate clinical examination of a case of obstructive jaundice. Order relevant investigations. Describe and discuss appropriate treatment plan	SU28.12

12	<b>LIVER:</b> Demonstrate the correct technique of examination of a patient with disorders of the liver Order relevant investigations. Describe and discuss appropriate treatment plan	SU28.10	
13	<b>STOMACH MASS:</b> Demonstrate the correct technique of examination of a patient with disorders of the stomach . Order relevant investigations. Describe and discuss appropriate treatment plan	SU28.9	
14	<b>SPLENIC MASS</b> Demonstrate the correct technique of examination of a patient with SPLENOMEGALY Order relevant investigations. Describe and discuss appropriate treatment plan	SU28.11	
15	<b>RENAL MASS</b> Demonstrate the correct technique of examination of a patient with RENAL MASS. Order relevant investigations. Describe and discuss appropriate treatment plan	SU28.4	

### 18. Skill lab

Comp no.	Competency Description [ P]	No. required to certify	Duration hours	Number of batches[number of students per batch]
SU25.5	Demonstrate the correct technique to palpate the breast for breast swelling in a mannequin or equivalent	03	03	33
SU29.10	Demonstrate a digital rectal examination of the prostate in a mannequin or equivalent	03	03	33

<b>SU10.3</b>	<b>Observation :</b> common surgical procedures and assist in minor surgical procedures; Observe emergency lifesaving surgical procedures	03	03	33
<b>Total</b>		<b>09</b>	<b>09</b>	<b>99-100</b>

### 19. CERTIFICATION OF SKILLS:

Comp no.	Competency Description [P]	Need for Skill lab [yes/no]	No. required to certify	Duration hours	Number of batches [number of students per batch]
<b>Total</b>					

### 20. AETCOM

Sl. No.	Module Number	Lectures [hours]	Small group [hours]	No. of Hours
	AETCOM			5 hours

### 21. Clinical clerkship plan

	UNIT-I	UNIT-II	UNIT-III	UNIT-IV
<b>MONDAY</b>	10-11 am OPD case presentation  5-6 pm admitted cases presentation	Discharge paper writing	Case sheet writing	Follow up of cases

	in casualty/pre op evaluation presentation			
<b>TUESDAY</b>	Post admission rounds presentation/attending Operation Theatre and writing OT notes	10-11 am OPD case presentation  5-6 pm admitted cases presentation in casualty/pre op evaluation presentation	Discharge paper writing	Case sheet writing
<b>WEDNESDAY</b>	Follow up of cases	Post admission rounds presentation/attending Operation Theatre and writing OT notes	10-11 am OPD case presentation  5-6 pm admitted cases presentation in casualty/pre op evaluation presentation	Discharge paper writing
<b>THURSDAY</b>	Follow up of cases	Follow up of cases	Post admission rounds presentation/att	10-11 am

			ending Operation Theatre and writing OT notes	OPD case presentati on  5-6 pm admitted cases presentati on in casualty/p re op evaluation presentati on
<b>FRIDAY</b>	Case sheet writing	Follow up of cases	Follow up of cases	Post admission rounds presentati on /attending Operation Theatre and writing OT notes
<b>SATURDAY</b>	Discharge paper writing	Case sheet writing	Follow up of cases	Follow up of cases



## **22. SCHEME OF EXAMINATION:**

### **Eligibility criteria:**

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

## **D. FORMATIVE ASSESSMENT**

### **THEORY INTERNAL ASSESSMENT:**

### **THEORY INTERNAL ASSESSMENT:**

- A minimum of 2 Internal Assessments (IAs) to be conducted
- One of the internal exams will be conducted like preliminary exams
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]
- Written exams will include MCQ's [MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30% of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

<b>DEPARTMENT OF GENERAL SURGERY</b>								
Integrated phase-wise Internal Assessment								
<b>THEORY</b>		<b>Phase 2</b>		<b>Phase 3-1</b>		<b>Phase 3-2</b>		<b>Final Total</b>
		<b>IA-1</b>	<b>IA-2</b>	<b>IA-3</b>	<b>IA-4</b>	<b>IA-5</b>	<b>IA-6</b>	
<b>Written</b>	<b>Theory<sup>#</sup></b>	30	25	30	25	75	75	
	<b>MCQ</b>	10	10	10	10	20	20	
	<b>AETCOM*</b>	--	05	--	05	05	05	
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05	05	05	10	10	10	
	<b>Logbook</b>	05	05	05	10	10	10	
<b>Total</b>		<b>50</b>	<b>50</b>	<b>50</b>	<b>60</b>	<b>120</b>	<b>120</b>	<b>450</b>
<p align="center"><b>FINAL THEORY IA MARKS = 150 (final total divided by 3)</b></p> <p align="center">* To be included as a question in theory paper</p> <p align="center"># Pandemic module to be included in theory exam</p> <p align="center">IA-6 is Preliminary exam and hence to be conducted as two theory papers of 100 marks each, and average of both papers is used for tabulation</p>								

<b>DEPARTMENT OF GENERAL SURGERY</b>						
<b>Integrated phase-wise Internal Assessment</b>						
<b>PRACTICAL</b>		<b>Phase 2</b>	<b>Phase 3-1</b>	<b>Phase 3-2</b>		<b>Final Total</b>
		<b>4 weeks</b>	<b>4 weeks</b>	<b>8 weeks</b>	<b>4 weeks</b>	
		<b>EOP-1</b>	<b>EOP-2</b>	<b>EOP-3</b>	<b>EOP-4</b>	
<b>EOP</b>	<b>Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)</b>	40	40	60	60	
	<b>Viva-voce (may include AETCOM)</b>	10	10	10	10	
<b>Others</b>	<b>Formative assessment including Clinical-Clerkship</b>	05	05	10	10	
	<b>Logbook/ Record book</b>	05	05	10	10	
<b>Total</b>		<b>60</b>	<b>60</b>	<b>90</b>	<b>90</b>	
<p align="center"><b>FINAL EOP IA MARKS<sup>#</sup> = 150 (final total divided by 2)</b></p> <p align="center">At least one EOP is to be conducted with OSCE as a part of it</p> <p align="center">AETCOM may be included as an OSCE station or as a part of Viva-voce during EOP, if it needs to be assessed in practical (Refer competency booklet &amp; AETCOM module)</p> <p align="center"><b>Preliminary Examinations will include Bedside Clinical Examination which will mirror the Summative University Examinations (Practical)</b></p>						
<p align="center"><b>FINAL PRACTICAL IA MARKS WILL BE AVERAGE OF EOP<sup>#</sup> AND PRELIMINARY EXAM (EQUAL WEIGHTAGE TO BOTH)</b></p>						

## Blue-printing of Internal assessments in General Surgery

BLUEPRINT	Number of questions						
	IA-1	IA-2*	IA-3	IA-4*	IA-5*	IA-6 Preliminary Exam*	
						Paper 1	Paper 2
<b>MCQ</b> (1 mark each)	10	10	10	10	20	20	20
<b>Structured Long Essay</b> (10 marks each)	00	00	01	01	02	02	02
<b>Short Essay</b> (5 marks each)	04	04	02	02	08	08	08
<b>Short Answer</b> (2 marks each)	05	05	05	05	10	10	10
<b>Total</b> (in marks)	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>*AETCOM should have a weightage of 5 marks</b>							

### E. SUMMATIVE ASSESSMENT:

General Surgery is learnt and assessed during professional years [PY] 2 and 3 part 1, 3<sup>rd</sup> part 2. SA will be held at the end of 3<sup>rd</sup> professional year part 2.

Surgical allied subjects will be evaluated in the second theory paper of Gen. Surgery.

#### **Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass

- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

### **23. INTEGRATION:**

<b>Competency list for integration</b>					
<b>SL</b>	<b>Comp No.</b>	<b>Competency to be integrated</b>	<b>nesting/ sharing/ aligning /correla tion</b>	<b>Integrating department</b>	
				<b>Hori zont al</b>	<b>Vertical</b>
1	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.	<b>nesting</b>		<b>Vertical</b>

		<p>-- documents of Medical Certification of Cause of Death - Form Number 4 and 4A</p> <p>-- documents for estimation of age by physical, dental and radiological examination and issuance of certificate</p>			
2	FM3.9	<p>Firearm injuries: Describe different types of firearms including structure and components, along with description of ammunition propellant charge and mechanism of fire-arms, different types of cartridges and bullets and various terminology in relation of firearm – caliber, range, choking.</p>	<b>nesting</b>		<b>Vertical</b>

## 24. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS

Latest editions of the following books are recommended	
THEORY	PRACTICAL
<p><b><i>Bailey &amp; Love's Short Practice of Surgery</i></b>            Authors : Norman Williams, P Ronan O'Connell</p>	<p><b><i>A Manual On Clinical Surgery</i></b>            Author : S Das</p>
<p><b><i>Manipal Manual of Surgery</i></b>            Author : Dr. K. RajgopalShenoy</p>	<p><b><i>Manipal Manual of Clinical Methods in Surgery: Differential Diagnosis and Clinical Discussion</i></b>            Author : Dr. AnithaShenoy and Dr. K. RajgopalShenoy</p>
<p><b><i>SRB's Manual of Surgery</i></b>            Author : Dr. Sri Ram Bhat</p>	<p><b><i>SRB's Clinical Methods in Surgery</i></b>            Author : Dr. Sri Ram Bhat</p>
<p><b><i>Sabiston Textbook Of Surgery, The Biological Basis Of Surgical Practice</i></b>            Authors : R. Daniel Beauchamp MD, B. Mark Evers MD, Kenneth L. Mattox MD</p>	<p><b><i>Hamilton Bailey s Demonstrations of Physical Signs in Clinical Surgery</i></b>            Authors : Lumley</p>
<p><b><i>Schwartz's Principles of Surgery</i></b>            Authors : F. Charles Brunicaardi, Dana K. Andersen, Timothy R. Billiar, David L. Dunn</p>	<p><b><i>Bedside Clinics in Surgery</i></b>            Authors: Makhan Lal Saha</p>
<p><b><i>A Textbook On Surgical Short Cases By Das</i></b>            Author: S. Das</p>	<p><b><i>Browse's Introduction to the Symptoms &amp; Signs of Surgical Disease</i></b>            Kevin G. Burnand ,John Black ,Steven A. Corbett , William E.G. Thomas</p>

\*\*\*END\*\*\*

## **ORTHOPEDICS AND TRAUMA**

### **1. GOAL**

Broad goal of teaching undergraduate medical students in Orthopedics and trauma is to impart such knowledge and skills that may enable him to diagnose and treat common ailments and to refer rare diseases or complications/ unusual manifestations of common diseases, to the specialist.

### **2. OBJECTIVES**

#### **2.1 KNOWLEDGE and 2.2 SKILLS**

At the end of the postings, the student shall be able

- i. To recognize and assess bone injuries, dislocation and poly-trauma and provide first contact care prior to appropriate referral,
- ii. Know the medico-legal aspects of trauma,
- iii. To recognize and manage common infections of bone and joints in the primary care setting,
- iv. Recognize common congenital, metabolic, neoplastic, degenerative and inflammatory bone diseases and refer appropriately,
- v. To perform simple orthopaedic techniques as applicable to a primary care setting,
- vi. To recommend rehabilitative services for common orthopaedic problems across all ages.

#### **2.3 ATTITUDE AND COMMUNICATION SKILLS**

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

1. Communicate with the patient regarding the course, treatment plan and prognosis of the disease.
2. Motivate patients with chronic diseases to adhere to the line of management as outlined by the health care provider.
3. Follow the treatment guidelines and counsel the patient to adhere and comply.
4. Respect patient's privacy.



5. Maintain confidentiality.
6. Work in a healthcare team efficiently while respecting all its members.
7. Continuously strive for updating his/her own knowledge and skill.
8. To treat prolonged illnesses with regular follow-up, monitoring, proper counseling and refer to higher centres if required.

## 2.4 INTEGRATION:

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

## 3. TEACHING HOURS AND COURSE CONTENT

### A. Teaching Hours

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching	15
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	20
3	Self-directed Learning( SDL)	05
	<b>TOTAL</b>	<b>40</b>

Sl. No	Teaching Learning Method Practicals	No. weeks
1	Bedside clinics/practicals	4 weeks
	<b>TOTAL</b>	

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	5
2	Skill Lab	3
	<b>TOTAL</b>	

## B. Course Contents

### I. THEORY (Large and small group teaching)

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Lecture (Large group) (L)	No. of Hours
1	OR2.1 Clavicle fracture OR2.2- Proximal humerus fracture	L	1
2	OR2.4- Fracture shaft humerus Fracture distal humerus	L	1
3	OR 2.7 -Fracture pelvis with emphasis on hemodynamic instability	L	1
4	OR 2.8 Fracture Cervical spine injuries	L	1
5	OR 2.9 Acetabular Fracture	L	1
6	OR2.11- Fracture distal femur Fracture Patella	L	1
7	OR2.13- Fracture both bone leg, Calcaneus	L	1
8	OR2.13- Lisfranc injury and Talus fracture	L	1
9	OR3.1- Tomsmith's arthritis/Acute Osteomyelitis / Subacute Osteomyelitis	L	1
10	OR4.1- TB hip and Knee	L	1
11	OR5.1- Inflammatory arthritis	L	1
12	OR6.1- Cervical spondylosis, Lumbar spondylosis and Listhesis	L	1
13	OR7.1-Calcium metabolism and Osteoporosis and Rickets	L	1
14	OR 8.1- PPRP	L	1
15	OR9.1-Cerebral Palsy	L	1

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Level	CORE/NO CORE	Small group teaching	No. of Hours
1.	OR1.1-Principles of pre-hospital care and causality management of trauma victim including principles of triage	K/KH	CORE	Integration (General surgery/Anaesthesia)	1
2.	OR1.2-Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock	K/KH	CORE	Integration (General surgery)	1
3.	OR1.3-Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries	K/KH/SH	CORE	Integration (General surgery)	1
4.	OR1.4-Describe and discuss the Principles of management of soft tissue injuries	K/KH	CORE	Integration (General surgery)	1
5.	OR 1.5- Shoulder dislocation	K/KH	CORE	Tutorial	1
6.	OR1.5: Knee, Hip dislocation	K/KH	CORE	Tutorial	1
7.	OR1.6-Closed reduction of Knee /Hip/Shoulder dislocation	KH	CORE	DOAP(Video)	1
8.	OR2.6- Distal radius fracture	KH	CORE	Seminar	1
9.	OR2.5- Forearm fracture	KH	CORE	Tutorial	1
10.	OR2.10-Proximal femur fracture/IT/NOF	KH	CORE	Tutorial	1
11.	OR2.11- Proximal tibia fracture	KH	CORE	Seminar	1
12.	OR2.12-Fracture shaft femur in all age groups /Fat embolism	KH	CORE	Tutorial	1
13.	OR3.1- Acute and Subacute Osteomyelitis/ Septic arthritides	KH	CORE	Integration (Patho +Micro)	1
14.	OR3.2-a. Joint aspiration b.Sequestrectomy/arthrotomy	KH	CORE	DOAP (video)	1

15.	OR4.1-TB Hip, TB knee	KH	CORE	Integration (Tutorial)	1
16.	OR4.1-TB Spine	KH	CORE	Seminar	1
17.	OR 2.8- Spine injuries	KH	CORE	Tutorial	1
18.	OR2.14-Ankle Fractures	KH	CORE	Tutorial	30 minutes
19.	OR2.18- Nonunion/Malunion/Delayed union	KH	CORE	Seminar	1
20.	OR2.16-Management of open tibia fracture	KH	CORE	Tutorial	30 minutes
21.	OR7.1-Osteoporosis	KH	CORE	Tutorial/Seminar	1

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Self Directed Learning	No. of Hours
1	OR2.8-Clinical examination of Spine and neurological examination	Bedside	1
2	OR11.1- Radial nerve anatomy, muscles supplied and tests to identify radial nerve injuries	Bedside	1
3	OR11.1- Ulnar nerve surgical anatomy, muscles supplied and tests to identify ulnar nerve	Bedside	1
4	OR2.8-Neurogenic bladder and nerve supplies to bladder	Bedside	1
5	OR2.4-Cubitus varus	Bedside	1

## II. PRACTICALS

### a) Bedside Clinics:

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Bedside Clinics/DOAP	No. of Hours
1	OR1.6- Participate as a member in the team for closed reduction of shoulder	DOAP	3

	dislocation/hip dislocation/knee dislocation		
2	OR3.2-Participate as a member in team for aspiration of joint under supervision	DOAP	3
3	OR1.5-Examination of Hip A. OR4.1-TB Hip B. Coxa vara(Perthes SCFE) C. OR12.1-CDH D. OR2.10-Proximal femur fracture	Bedside Clinics	12
4	OR1.5-Examination of Knee A. OR4.1-TB knee B. Ligament injury, Meniscus injuries	Bedside Clinics	6
5	OR1.5- Examination of Shoulder A. Shoulder dislocation B. Rotator Cuff injuries	Bedside Clinics	6
6	OR2.14-Examination of Ankle A. OR11.1-Foot drop B. OR12.1-CTEV C. Flat foot	Bedside Clinics	6
7	OR11.1-Peripheral Nerve injuries, examination A. Radial nerve B. Median nerve C. Ulnar nerve	Bedside Clinics	6
8	OR2.4-Examination of Elbow joint, Wrist joint A. Cubitus varus B. Myositis /Stiff elbow C. Malunited distal radius D. OR11.1-Wrist drop E. OR11.1-Hand regional condition	Bedside Clinics	6
9	OR4.1- TB spine	Bedside Clinics	6
10	OR2.15- Malunion, non-union, infection, compartment syndrome	Bedside Clinics	6
11	OR7.1-Rickets, paget's disease	Bedside Clinics	6
12	OR6.1-IVDP	Bedside Clinics	6

**b)Skill Lab:**

Comp no.	Competency Description [ P]	No. required to certify	Duration hours	Number of batches[number of students per batch]
OR13.1	Participate in a team for procedures in patients and demonstrating the ability to perform on mannequins/simulated patients in the following -: A. Above elbow plaster B. Below elbow plaster C. Above knee plaster D. Thomas splint E. splinting for long bone fractures F. strapping for shoulder and clavicle trauma.	2	2 hours	25 students per batch
OR3.2	Compression bandage	2	1hour	25 students per batch
<b>Total</b>				

**c. Certifiable Skills:**

S.No	Skill	T-L Method	Assessment & Grading	Number of batches[number of students per batch]
1	OR13.1-Participate in a team for procedures in patients and demonstrating the ability to perform on	Case discussion/ Skill lab	OSCE/Viva	25 students per batch

	mannequins/simulated patients in the following -: G. Above elbow plaster H. Below elbow plaster I. Above knee plaster J. Thomas splint K. splinting for long bone fractures strapping for shoulder and clavicle trauma.			
2	Compression bandage	Skill lab	OSCE/Viva	25 students per batch

### III. AETCOM AND SKILL LAB

Sl. No.	Module Number	AETCOM/Skill Lab	Lectures	Small group	No. of Hours
1	OR14.1- Demonstrate the ability to counsel patients regarding prognosis in patients with various orthopedic illness like- Fracture with disabilities, fracture that require prolonged bed stay, bone tumours, congenital disabilities	AETCOM	Case discussion/Demonstration	Small group	1
2	OR14.2-Demonstrate the ability to counsel patients to obtain consents for various orthopedic procedures like limb amputation, permanent fixations etc.	AETCOM	Case discussion/Demonstration	Small group	1

**NOTE:** The above table containing teaching hours assigned to different topics under large and small group teaching may be used as a guide by the Institute.

#### **4. SCHEME OF EXAMINATION:**

##### **Eligibility criteria:**

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

#### **FORMATIVE ASSESSMENT**

##### **THEORY INTERNAL ASSESSMENT:**

- A minimum of 2 Internal Assessments (IAs) to be conducted
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]
- Written exams will include MCQ's[MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30%of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.



**The distribution of internal assessment marks shall be as mentioned below:**

<b>DEPARTMENT OF ORTHOPAEDICS</b>					
Integrated phase-wise Internal Assessment					
<b>THEORY</b>		<b>Phase 3-1</b>	<b>Phase 3-2</b>		<b>Final Total</b>
		<b>IA-1</b>	<b>IA-2</b>	<b>IA-3</b>	
<b>Written</b>	<b>Theory</b>	15	20	40	
	<b>MCQ</b>	10	10	15	
	<b>AETCOM*</b>	--	--	05	
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	--	05	05	
	<b>Logbook</b>	05	05	05	
<b>Total</b>		<b>30</b>	<b>40</b>	<b>70</b>	<b>140</b>
<b>FINAL THEORY IA MARKS = 35 (final total divided by 4)</b>					
* To be included as a question in theory paper					

**Blue-printing of Internal assessments in Orthopedics**

<b>BLUEPRINT</b>	<b>Number of questions</b>		
	<b>IA-1</b>	<b>IA-2</b>	<b>IA-3*</b>
<b>MCQ</b> (1 mark each)	10	10	15
<b>Structured Long Essay</b> (10 marks each)	00	00	01
<b>Short Essay</b> (5 marks each)	01	02	03
<b>Short Answer</b> (2 marks each)	05	05	10
<b>Total</b> (in marks)	<b>25</b>	<b>30</b>	<b>60</b>
<b>* AETCOM should have a weightage of 5 marks</b>			

## PRACTICAL INTERNAL ASSESSMENT

- Clinical end posting exams [EOP] will be conducted
  - Viva/oral examination should assess approach to clinical context and included in practical IA marks.

### Practicals:

<b>DEPARTMENT OF ORTHOPAEDICS</b>						
Integrated phase-wise Internal Assessment						
<b>PRACTICAL</b>		<b>Phase 2</b>	<b>Phase 3-1</b>	<b>Phase 3-2</b>	<b>Final Total</b>	
		<b>2 weeks</b>	<b>4 weeks</b>	<b>2 weeks</b>		
		<b>EOP-1</b>	<b>EOP-2</b>	<b>EOP-3</b>		
<b>EOP</b>	<b>Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)</b>	20	50	20		
	<b>Viva-voce (may include AETCOM)</b>	05	10	10		
<b>Others</b>	<b>Formative assessment</b>	05	05	05		
	<b>Logbook/ Record book</b>	--	05	05		
<b>Total</b>		<b>30</b>	<b>70</b>	<b>40</b>		<b>140</b>
<p><b>FINAL PRACTICAL IA MARKS = 35 (final total divided by 4)</b></p> <p>At least one EOP is to be conducted with OSCE as a part of it</p> <p>AETCOM may be included as an OSCE station or as a part of viva-voce during EOP, if it needs to be assessed in practical (Refer competency booklet &amp; AETCOM module)</p>						

## 5. SUMMATIVE ASSESSMENT:

Orthopaedics is learnt and assessed during professional years [PY] 2 and 3 part 1, 3<sup>rd</sup> part 2. SA will be held at the end of 3<sup>rd</sup> professional year part 2, as a **part of General surgery (Allied subject)**

### Pass criteria:

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University as the case may be prior to the declaration of his/her results in that particular phase. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

## 6. INTEGRATION:

- May be conducted in the form of sharing/nesting/correlation using CBL/PBL/ Case study approach and involving various departments concerned while preparing the specific learning objectives of the integration topics.
- Department involved may be chosen according to the topic and may be conducted as Horizontal/ Vertical form of integration as per the CBME document.

Competency list for integration					
SL	Comp No.	Competency to be integrated	nesting/ sharing/ aligning /correlation	Integrating department	
				Horizontal	Vertical
1	OR1.1	Describe and discuss the Principles of pre-hospital care and Casualty	aligning /correlation	General Surgery/Anaesthesiology	

		management of a trauma victim including principles of triage			
2	OR1.2	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock	aligning /correlation	General Surgery	
3	OR1.3	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries	aligning /correlation	General Surgery	
4	OR1.4	Describe and discuss the Principles of management of soft tissue injuries	aligning /correlation	General Surgery	
5	OR3.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Bone and Joint infections a) Acute Osteomyelitis b) Subacute osteomyelitis c) Acute Suppurative arthritis d) Septic arthritis & HIV infection e) Spirochaetal infection f) Skeletal Tuberculosis	aligning /correlation	General surgery	Pathology, Microbiology

6	OR4.1	Describe and discuss the clinical features, Investigation and principles of management of Tuberculosis affecting major joints (Hip, Knee) including cold abscess and caries spine	aligning /correlation	General surgery	Pathology
7	OR5.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of various inflammatory disorder of joints	aligning /correlation	General Medicine	
8	OR10.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of benign and malignant bone tumours and pathological fractures	aligning /correlation		Pathology
9	OR11.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of peripheral nerve injuries in diseases like foot drop, wrist drop, claw hand,	aligning /correlation	General Medicine, General surgery	

		palsies of Radial, Ulnar, Median, Lateral Popliteal and Sciatic Nerves			
10	OR13.2	Participate as a member in team for Resuscitation of Polytrauma victim by doing all of the following : (a) I.V. access central - peripheral (b) Bladder catheterization (c) Endotracheal intubation (d) Splintage	aligning /correlation	Anaesthesiology	

## 7. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS

### Text books:

1. Apples System of orthopaedics and fractures
2. Adams's Outline of orthopaedics
3. Adam's Outline of fractures: including joint injuries

### Reference books:

- 1 SM Tuli textbook of tuberculosis of the skeleton system
- 2 S. Das A manual of clinical Surgery
- 3 John Ebnezars textbook of orthopaedics
- 4 Maheshwari textbook of orthopaedics
- 5 Miller's review of orthopaedics
- 6 AAOS Comprehensive orthopaedics review
- 7 Campbells Operative orthopaedics
- 8 Ronald McRae Clinical orthopaedic examination

\*\*\*END\*\*\*

## **RADIODIAGNOSIS**

### **1. GOAL**

The broad goal of teaching the undergraduate medical students in the field of Radio-diagnosis should be aimed at making the students realize the basic need of various radio diagnostic tools in medical practice. They shall be aware of the techniques to be undertaken in different situations for the diagnosis of various ailments as well as during prognostic estimations.

### **2. OBJECTIVES**

#### **2.1 KNOWLEDGE**

At the end of the course in Radio-diagnosis, the students should:

1. Understand basics of x-rays production, its uses and hazards.
2. Be aware of radiation hazards and protection with reference to self, patient and the public.
3. Be familiar with various imaging techniques, their advantages and disadvantages. Be aware of indications for common x-ray investigations, know the indications for C.T. Scan and Ultrasound.
4. Appreciate and diagnose changes in bones – like fractures, infections, tumors and metabolic bone diseases.
5. Identify and diagnose various radiological changes in disease conditions of chest and mediastinum, Gastro intestinal tract, Hepatobiliary system and Genito Urinary (G.U) system and central nervous system.
6. Learn about various imaging techniques, including computerized Tomography (C.T scan), Ultrasound with color Doppler, Magnetic Resonance Imaging (M.R.I) and D.S.A.

#### **2.2 SKILLS**

At the end of the course the students shall be able to:

1. Use basic protective techniques during various imaging procedures.
2. Interpret common x-ray, radio-diagnostic techniques in various community situations.
3. Advise appropriate diagnostic procedures in specialized circumstances to appropriate specialists.

## 2.3 ATTITUDE AND COMMUNICATION SKILLS

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

1. Communicate with the patient about the plan of investigation,
2. Communicate how much the investigation may or may not contribute to the diagnosis [the sensitivity, specificity, positive and negative predictive values]
3. Communicate about possible adverse health effects about the investigation.
4. Respect patient's autonomy
5. Follow the principles of beneficence, non-maleficence and justice
6. Maintain confidentiality.
7. Work in a healthcare team efficiently while respecting all its members.
8. To have the judgement not to harm the unborn child.

## 7.4 INTEGRATION:

The knowledge acquired in radiology should help the students to integrate and correlate the diagnostic and prognostic imaging studies with clinical conditions in health and disease

## 10. TEACHING HOURS AND COURSE CONTENT

### J. Teaching Hours

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching	10
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	08
3	Self-directed Learning( SDL)	02
	<b>TOTAL</b>	<b>20</b>

Sl. No	Teaching Learning Method Practicals	No. weeks
1	Bedside clinics/practicals	weeks
	nil	nil
	<b>TOTAL</b>	



Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	5
2	Skill Lab	
	<b>TOTAL</b>	

### K. Course Contents

#### 2. THEORY (Large and small group teaching)

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Lecture (Large group)	No. of Hours
1	RD1.3 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder of ENT		1
2	RD1.4 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Ob & Gy		1
3	RD1.5 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in internal medicine		1
4	RD1.5 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in internal medicine		1
5	RD1.6 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorders in surgery		1

6	RD1.6 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorders in surgery		1
7	RD1.7 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Pediatrics		1
8	RD1.8 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to common malignancies		1
9	RD1.8 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to common malignancies		1
10	RD1.9 Describe the role of Interventional Radiology in common clinical conditions		1

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Small group teaching</b>	<b>No. of Hours</b>
1	RD1.3 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder of ENT		1
2	RD1.4 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Ob & Gy		1
3	RD1.4 Enumerate indications for various common radiological investigations, choose the most		1

	appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Ob & Gy		
4	RD1.5 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in internal medicine		1
5	RD1.6 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorders in surgery		1
6	RD1.7 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Pediatrics		1
7	RD1.8 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to common malignancies		1
8	RD1.9 Describe the role of Interventional Radiology in common clinical conditions		1

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Self Directed Learning</b>	<b>No. of Hours</b>
1	RD1.5 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in internal medicine		1
2	RD1.6 Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorders in surgery		1

### 3. PRACTICALS

#### 8. Bedside Clinics:

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Bedside Clinics/DOAP	No. of Hours

#### 9. Skill Lab:

Comp no.	Competency Description [ P ]	No. required to certify	Duration hours	Number of batches[number of students per batch]
<b>Total</b>				

#### 10. Certifiable Skills:

S.No	Skill	T-L Method	Assessment & Grading	Number of batches[number of students per batch]
NONE				

#### 4. AETCOM AND SKILL LAB

Sl. No.	Module Number	AETCOM/Skill Lab	Lectures	Small group	No. of Hours

**NOTE:** The above table containing teaching hours assigned to different topics under large and small group teaching may be used as a guide by the Institute.

#### 11. SCHEME OF EXAMINATION:

##### Eligibility criteria:

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

#### FORMATIVE ASSESSMENT

##### THEORY INTERNAL ASSESSMENT:

- **One theory IA will be conducted as detailed below in the table**
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]
- Written exams will include MCQ's[MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30%of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

**The distribution of internal assessment marks shall be as mentioned below:**

<b>DEPARTMENT OF RADIODIAGNOSIS</b>		
Integrated phase-wise Internal Assessment		
<b>THEORY</b>		<b>Phase 3-1</b>
<b>Written</b>	<b>Theory</b>	20
	<b>MCQ</b>	10
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05
	<b>Logbook</b>	05
<b>Total</b>		<b>40</b>
<b>FINAL THEORY IA MARKS = 04 (final total divided by 10)</b>		

#### **Blue-printing of Theory Internal Assessment in Radiodiagnosis**

	<b>Number of questions</b>
<b>MCQ (1 mark each)</b>	10
<b>Structured Long Essay</b> (10 marks each)	00
<b>Short Essay</b> (5 marks each)	02
<b>Short Answer</b> (2 marks each)	05
<b>Total (in marks)</b>	<b>30</b>

#### **PRACTICAL INTERNAL ASSESSMENT**

- Clinical end posting exams [EOP] will be conducted
  - Viva/oral examination should assess approach to clinical context and included in practical IA marks.

## Practicals:

<b>DEPARTMENT OF RADIODIAGNOSIS</b>		
Integrated phase-wise Internal Assessment		
<b>PRACTICAL</b>		<b>Phase 2</b> <b>2 weeks posting</b>
<b>EOP</b>	<b>Clinical skills assessment</b>	20
	<b>Viva-voce</b>	10
<b>Others</b>	<b>Formative assessment</b>	05
	<b>Logbook/ Record book</b>	05
<b>Total</b>		<b>40</b>
<b>FINAL PRACTICAL IA MARKS = 04 (final total divided by 10)</b>		

### **B. SUMMATIVE ASSESSMENT:**

Radiodiagnosis is learnt and assessed during professional years [PY] 2 and 3 part 1, 3<sup>rd</sup> part 2. SA will be held at the end of 3<sup>rd</sup> professional year part 2, as a part of **General Surgery (Allied subject)**

#### **Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University as the case may be prior to the declaration of his/her results in that particular phase. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

**11. INTEGRATION:**

- May be conducted in the form of sharing/nesting/correlation using CBL/PBL/ Case study approach and involving various departments concerned while preparing the specific learning objectives of the integration topics.
- Department involved may be chosen according to the topic and may be conducted as Horizontal/ Vertical form of integration as per the CBME document.

<b>Competency list for integration</b>					
<b>SL</b>	<b>Comp No.</b>	<b>Competency to be integrated</b>	<b>nesting/ sharing/ aligning /correlation</b>	<b>Integrating department</b>	
				<b>Horizontal</b>	<b>Vertical</b>
1					
2					
3					

**12. RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS**

Text books (Latest edition of the following books):

1. Text book of Radiology and Imaging, David Sutton
2. Diagnostic Radiology – A text book of medical imaging, Grainger & Allison’s
3. CT & MRI of the whole body, John R Haaga & Daniel T. Boll
4. Aids to Radiological Differential Diagnosis, Chapman & Nakielny’s

**\*\*\*END\*\*\***



## **ANAESTHESIA**

### **01 GOAL**

Broad goal of teaching undergraduate medical students in anaesthesia is to understand the implications of pre-existing diseases in patients undergoing anaesthesia, have knowledge regarding basic airway management and acute resuscitation.

### **i. OBJECTIVES**

#### **2.1 KNOWLEDGE**

- i. Describe and discuss the pre-operative evaluation, assessing fitness for surgery and the modifications in medications in relation to anaesthesia / surgery.
- ii. Describe and discuss the roles of anaesthesiologist as a peri-operative physician.
- iii. Describe and discuss different techniques of anaesthesiology, including regional anaesthesia, general anaesthesia and MAC.
- iv. Review principles and teach skills in resuscitation.
- v. Describe and discuss the management of acute and chronic pain, including labour analgesia.

#### **2.2 SKILLS**

At the end of the postings, the student shall be able to

- i. Demonstrate awareness about the maintenance of clear airway in children and adults in various situations.
- ii. Demonstrate awareness regarding starting a venous access- various modalities- peripheral and central venous cannulation.
- iii. Demonstrate the awareness and execution of Cardio-pulmonary resuscitation.
- iv. Choose cases for local / regional anaesthesia and demonstrate the ability to administer the same.
- v. Patient monitoring and various monitors used- ECG, SpO<sub>2</sub>, NIBP, temperature monitoring.

## **2.3 ATTITUDE AND COMMUNICATION SKILLS**

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

- i. Communicate with the patient regarding the course, treatment plan and prognosis of the disease.
- ii. Respect patient's privacy.
- iii. Maintain confidentiality.
- iv. Work in a healthcare team efficiently while respecting all its members.
- v. Continually strive for updating his/her own knowledge and skill.
- vi. Discuss the implications and obtain informed consent for various procedures and to maintain the documents.

## **11.4 INTEGRATION:**

The teaching should be aligned and integrated horizontally and vertically in order to provide comprehensive care for patients undergoing various surgeries, in patients with pain, in intensive care and in cardio respiratory emergencies. Integration with the preclinical department of Anatomy, para- clinical department of Pharmacology and horizontal integration with any/all surgical specialities is proposed.

## 12. TEACHING HOURS AND COURSE CONTENT

### A Teaching Hours

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching	08
2	Small group teaching (SGT) : SGD/Tutorials/Seminars	10
3	Self-directed Learning( SDL)	02
	<b>TOTAL</b>	<b>20</b>

Sl. No	Teaching Learning Method Practicals	No. weeks
1	Bedside clinics/practicals	1 week
	<b>TOTAL</b>	

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	5
2	Skill Lab	
	<b>TOTAL</b>	

### B Course Contents

#### 12.4.1 THEORY (Large and small group teaching)

Sl. No.	Topic / System: (With Competency Number) core / non-core competency	Lecture ( Large group)	No. of Hours
1	AS 1.1 – AS 1.5 General introduction- Evolution, Principle of Ethics Prospects of Anaesthesiology as a career	Lecture	1 Hour
2	PY 3.4 - PY 3.5 Describe the neuromuscular junction & transmission of impulses. Describe the action of N – M – B asserts	Lecture	1 Hour
3	AS 3.1 - AS 3.6 Describe principles of Preoperative evaluation	Lecture	1 Hour

	including history taking, clinical examination, documentation, Pre-op investigations, medications & NPO guidelines		
4	AS 4.1 & 4.3 Describe & discuss the Pharmacology of drugs used in induction & maintenance of general anaesthesia ( IV, Intubation, Opiates, Non opiates, NDMR, Anticholineterases). Observe & describe the principles & the practical aspects of induction & maintenance of anaesthesia.	Lecture	1 Hour
5	AS 4.2 Describe the anatomy of airway and its implications for general anaesthesia.	Lecture	1 Hour
6	AS 5.1, AS 5.2, AS 5.5 Describe the correlative anatomy of subarachnoid & epidural spaces. Indications & principles of regional anaesthesia ( CNB). Steps involved in caudal epidural in children & adults.	Lecture	1 Hour
7	AS 7.1 – AS 7.2 Enumerate & describe the functions of ICU. Describe the criteria for admission & discharge of patients to an ICU.	Lecture	1 Hour
8	AS 8.1 – AS 8.5 Describe the Anatomical correlates and physiological principles of pain. Determine the level, quality and quantity of pain and its tolerance in patients. Describe the Pharmacology & use of drugs in the management of pain. Describe the principles of pain management in palliative care & terminally ill.	Lecture	1 Hour

<b>Sl. No.</b>	<b>Topic/ System : (With Competency Number) core/ non-core competency</b>	<b>Small group teaching</b>	<b>No. of Hours</b>
1	<b>AS 4.4 , AS 4.5</b> Monitoring & maintenance of vital organ functions	Small group Teaching	1 Hour
2	<b>AS 4.6 , AS 4.7</b> Day care anaesthesia & NORA	Small group Teaching	1 Hour
3	<b>AS 5.3, AS 5.4, AS 5.6</b> Anatomy of Brachial plexus Pharmacology of drugs used & adjuvants Common blocks used in surgery	Small group Teaching	1 Hour
4	<b>AS 6.1, AS 6.2, AS 6.3</b> PACU Monitoring & resuscitation Contents of crash cart Equipment used Common complications encountered in PACU, recognition & management.	Small group Teaching	1 Hour
5	<b>AS 7.3, OR 1.1</b> Head injury patient Trauma patient – pre hospital care Casualty management & triage	Small group Teaching	1 Hour
6	<b>AS 9.3 , AS 9.4</b> Fluid Therapy in Pre –op period, blood & blood products used in perioperative period	Small group Teaching	1 Hour
7	<b>AS 10.1, AS 10.2</b> Hazards of incorrect positioning Hazards in perioperative period steps taken & prevent them	Small group Teaching	1 Hour
8	<b>AS 10.3, AS 10.4</b> Communication in patient safety Common medical & medication errors in anaesthesia.	Small group Teaching	1 Hour

9	<b>IM 24.11</b> – Aetiopathogenesis , Clinical presentation, identification, functional changes, acute care, stabilization, management & rehabilitation.	Small group Teaching	1 Hour
	<b>INTEGRATION</b>		
10	<b>FM 2.19</b> – Investigation of anaesthetic, operative deaths. Describe & discuss special protocols for conduction of autopsy & for correction, preservation & dispatch of related material evidences.	Small group Teaching	1 Hour

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Self Directed Learning	No. of Hours
	<b>AS 3.1 to 3.6</b>		
	<b>AS 4.2</b>		

#### 12.4.2 PRACTICALS

##### i. Bedside Clinics:

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Bedside Clinics/DOAP	No. of Hours
1	<b>AS 2.1</b> Enumerate the indications, describe the steps in a simulated environment, Basic Life Support in adult, children & neonates	DOAP	<b>3 Hrs</b>
2	<b>AS 2.2</b> Enumerate the indications, describe the steps in a simulated environment, Advance Life Support in adult & children	DOAP	<b>3 Hrs</b>
3	<b>AS 9.1</b> Establish intravenous access in a simulated environment. <b>AS 9.2</b> Establish central venous access in a simulated environment.	DOAP	<b>3 Hrs</b>

4	<b>SU 17.10 (Integration with General Surgery)</b> Demonstrate airway maintenance and recognize and management of tension pneumothorax, hemothorax and flail chest in simulated environment.	DOAP	3 Hrs
5	<b>AS 7.4</b> - Observe & describe the basic setup process of ventilators. <b>AS 7.5</b> - Observe & describe the principles of monitoring in ICU.	DOAP	3 Hrs
6	End of the posting Examination		

ii. Skill Lab:

Comp no.	Competency Description [ P]	No. required to certify	Duration hours	Number of batches[number of students per batch]
<b>Total</b>				

iii. Certifiable Skills:

S.No	Skill	T-L Method	Assessment & Grading	Number of batches[number of students per batch]

### 12.4.3 AETCOM AND SKILL LAB

Sl. No.	Module Number	AETCOM/Skill Lab	Lectures	Small group	No. of Hours

**NOTE:** The above table containing teaching hours assigned to different topics under large and small group teaching may be used as a guide by the Institute.

### 13. SCHEME OF EXAMINATION:

#### Eligibility criteria:

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

#### A. FORMATIVE ASSESSMENT

##### THEORY INTERNAL ASSESSMENT:

- **One Theory IA** will be conducted as detailed in the table below
- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- Formative assessment: based on day to day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]
- Written exams will include MCQ's [MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30% of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.



**The distribution of internal assessment marks shall be as mentioned below:**

<b>DEPARTMENT OF ANAESTHESIA</b> Integrated phase-wise Internal Assessment		
<b>THEORY</b>		<b>Phase 3-1</b>
<b>Written</b>	<b>Theory</b>	20
	<b>MCQ</b>	10
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05
	<b>Logbook</b>	05
<b>Total</b>		<b>40</b>
<b>FINAL THEORY IA MARKS = 04 (final total divided by 10)</b>		

**Blue-printing of Theory Internal Assessment in Anaesthesia**

	<b>Number of questions</b>
<b>MCQ</b> (1 mark each)	10
<b>Structured Long Essay</b> (10 marks each)	00
<b>Short Essay</b> (5 marks each)	02
<b>Short Answer</b> (2 marks each)	05
<b>Total</b> (in marks)	<b>30</b>

#### **PRACTICAL INTERNAL ASSESSMENT**

- Clinical end posting exams [EOP] will be conducted
- Viva/oral examination should assess approach to clinical context and included in practical IA marks.

## Practicals:

<b>DEPARTMENT OF ANAESTHESIA</b> Integrated phase-wise Internal Assessment		
<b>PRACTICAL</b>		<b>Phase 2</b> <b>2 weeks posting</b>
<b>EOP</b>	<b>Clinical skills assessment</b>	20
	<b>Viva-voce</b>	10
<b>Others</b>	<b>Formative assessment</b>	05
	<b>Logbook/ Record book</b>	05
<b>Total</b>		<b>40</b>
<b>FINAL PRACTICAL IA MARKS = 04 (final total divided by 10)</b>		

### **B. SUMMATIVE ASSESSMENT:**

Anaesthesia is learnt and assessed during professional years [PY] 2 and 3 part 1, 3<sup>rd</sup> part 2. SA will be held at the end of 3<sup>rd</sup> professional year part 2 **as a part of General Surgery (Allied subject)**

#### **Pass criteria:**

- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University as the case may be prior to the declaration of his/her results in that particular phase. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

## 5. INTEGRATION:

- May be conducted in the form of sharing/nesting/correlation using CBL/PBL/ Case study approach and involving various departments concerned while preparing the specific learning objectives of the integration topics.
- Department involved may be chosen according to the topic and may be conducted as Horizontal/ Vertical form of integration as per the CBME document.

Competency list for integration					
SL	Comp No.	Competency to be integrated	nesting/ sharing/ aligning /correlation	Integrating department	
				Horizontal	Vertical
1					
2					
3					

## 6 RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS

### Text books:

5. Manual of Anaesthesia- A K Paul
6. Short textbook of Anaesthesia, 6<sup>th</sup> edition - Ajay Yadav
7. Lee's Synopsis of Anaesthesia, 15<sup>th</sup> edition.

### Reference books:

- 13.4.1.1 Miller's Anaesthesia, 9<sup>th</sup> edition.
- 13.4.1.2 Morgan and Mikhail's Clinical Anesthesiology- 6<sup>th</sup> edition.
- 13.4.1.3 Clinical Anaesthesia, 8<sup>th</sup> edition- Paul G Barash.

\*\*\*END\*\*\*

## **DENTISTRY**

### **1. GOAL**

The broad goal of teaching the undergraduate medical students in the field of Dentistry should be aimed at making the students realize the basic need of knowledge of dentistry in medical practice.

### **2. OBJECTIVES**

#### **2.1 KNOWLEDGE**

At the end of the course in Dentistry, the students should:

- Have a basic idea of common dental problems, their aetio-pathogenesis, clinical features, diagnosis and management.
- Know the complications of common dental ailments
- Be able to identify and know the management of complications of dental problems

#### **2.2 SKILLS**

At the end of the course the students shall be able to:

- Identify common dental ailments
- Identify poor oral hygiene
- Perform a comprehensive oral and dental examination

#### **2.3 ATTITUDE AND COMMUNICATION SKILLS**

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

- Counsel patients regarding oral hygiene
- Counsel patients about common dental ailments

#### **13.5 INTEGRATION:**

The knowledge acquired in Dentistry should help the students to integrate and correlate the diagnostic and prognostic imaging studies with clinical conditions in health and disease

### 3. TEACHING HOURS AND COURSE CONTENT

#### L. Teaching Hours

Sl. No	Teaching Learning Method Theory	No. of Hours
1	Large group teaching	00
2	Small group teaching (SGT): SGD/Tutorials/Seminars	00
3	Self-directed Learning (SDL)	00
	<b>TOTAL</b>	<b>00</b>

Sl. No	Teaching Learning Method Practicals	No. weeks
	Bedside clinics/practical	1 week
	<b>TOTAL</b>	

Sl. No	Teaching Learning Method	No. of Hours
1	AETCOM	--
2	Skill Lab	--
	<b>TOTAL</b>	<b>00</b>

#### M. Course Contents

##### 5. THEORY (Large and small group teaching)

Sl. No.	Topic/ System: (With Competency Number) core/ non-core competency	Lecture (Large group)	No. of Hours
1	--		
2	--		

Sl. No.	Topic/ System : (With Competency Number) core/ non-core competency	Small group teaching	No. of Hours
1	Dental Caries (DE 1.1, 1.2, 1.4)		01hr
2	Edentulous state (DE 2.1, 2.2, 2.4)		01hr
3	Malocclusion (DE 3.1, 3.2)		01hr
4	Oral cancer (DE 4.1, 4.2)		01hr
5	Periodontal diseases (DE 5.1, 5.2, 5.4)		01hr

Sl. No.	Topic/ System: (With Competency Number) core/ non-core competency	Self-Directed Learning	No. of Hours
1	--		
2	--		

## 6. PRACTICALS

### 7. Bedside Clinics:

Sl. No.	Topic/ System: (With Competency Number) core/ non-core competency	Bedside Clinics/DOAP	No. of Hours
1	Identification, examination and counselling of a patient with Dental caries (DE 1.3, 1.5)	Bedside Clinics + DOAP	2hrs
2	Identification, examination and counselling of a patient with oral cancer (DE 4.3, 4.4)	Bedside Clinics + DOAP	2hrs
3	Identification, examination and counselling of a patient with missing teeth / Teeth restoration (DE 2.3, 2.5)	Bedside Clinics + DOAP	2hrs
4	Identification, examination and counselling of a patient with malocclusion (DE 3.3, 3.4)	Bedside Clinics + DOAP	2hrs
5	Identification, examination and counselling of a patient with periodontal diseases (DE 5.3, 5.5)	Bedside Clinics + DOAP	2hrs

### 8. Skill Lab:

Comp no.	Competency Description [ P ]	No. required to certify	Duration hours	Number of batches [number of students per batch]
<b>NOT APPLICABLE</b>				
<b>Total</b>				--

## 9. Certifiable Skills:

S.No	Skill	T-L Method	Assessment & Grading	Number of batches[number of students per batch]
NONE				

## 10.AETCOM AND SKILL LAB

Sl. No.	Module Number	AETCOM/Skill Lab	Lectures	Small group	No. of Hours
--	--	--	--	--	--

**NOTE:** The above table containing teaching hours assigned to different topics under large and small group teaching may be used as a guide by the Institute.

## 14. SCHEME OF EXAMINATION:

### Eligibility criteria:

- Learners must secure at least 50% marks of total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the University examination.
- Student should get a minimum of 75% attendance in Theory and 80 % in Practical classes to be eligible to appear for university examination.
- Learners must have completed the required certifiable competencies and completed the log book.

## FORMATIVE ASSESSMENT

### THEORY INTERNAL ASSESSMENT:

- One Theory IA will be conducted as detailed in the table below

- Learners who have not completed the required number of internal assessment exams for genuine reasons will be given a chance of remediation
- Formative assessment marks shall be calculated based on scoring in written tests and AETCOM modules.
- **Formative assessment: based on day-to-day assessment of SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments [records of activities used for assessment to be maintained by the department]**
- Written exams will include MCQ's [MCQs not exceeding 20%]/Structured Long Essay Questions/Short essay questions/Short Answer questions
- 30%of marks will be for higher order thinking
- Content under Noncore category cannot be assessed in Summative assessments. However, the same can be assessed in Formative assessments.

**The distribution of internal assessment marks shall be as mentioned below:**

<b>DEPARTMENT OF DENTISTRY</b>		
Integrated phase-wise Internal Assessment		
<b>THEORY</b>		<b>Phase 3-1</b>
<b>Written</b>	<b>Theory</b>	20
	<b>MCQ</b>	10
<b>FA</b>	<b>Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments</b>	05
	<b>Logbook</b>	05
<b>Total</b>		<b>40</b>
<b>FINAL THEORY IA MARKS = 04 (final total divided by 10)</b>		



## Blue-printing of Theory Internal Assessment in Dentistry

	Number of questions
<b>MCQ</b> (1 mark each)	10
<b>Structured Long Essay</b> (10 marks each)	00
<b>Short Essay</b> (5 marks each)	02
<b>Short Answer</b> (2 marks each)	05
<b>Total</b> (in marks)	<b>30</b>

### PRACTICAL INTERNAL ASSESSMENT

- Clinical end posting exams [EOP] will be conducted
- Viva/oral examination should assess approach to clinical context and included in practical IA marks.

#### Practicals:

DEPARTMENT OF DENTISTRY Integrated phase-wise Internal Assessment		
PRACTICAL		Phase 3-1 1 week posting
EOP	Clinical skills assessment	20
	Viva-voce	10
Others	Formative assessment	05
	Logbook/ Record book	05
<b>Total</b>		<b>40</b>
<b>FINAL PRACTICAL IA MARKS = 04 (final total divided by 10)</b>		

### **C. SUMMATIVE ASSESSMENT:**

Dentistry is learnt and assessed during professional years [PY] 2 and 3 part 1, 3<sup>rd</sup> part 2. SA will be held at the end of 3<sup>rd</sup> professional year part 2 as a part of Surgery (Allied subject)

#### **Pass criteria:**

- **No separate pass criteria for Dentistry, however the ones applicable to Surgery will apply (Given Below)**
- University Theory Exam – Student should secure at least 50% marks in theory to pass.
- University Practical Exam – Student shall secure at least 50% marks (including Viva-voce) to pass
- Student shall secure at least 50% of the total marks (combined in theory and practical) assigned for internal assessment in order to be declared successful at the final university of that subject.
- Internal assessment will appear as a separate head of passing at summative exams
- A candidate, who has not secured requisite aggregate in the internal assessment has to successfully complete the remediation measures prescribed by the University as the case may be prior to the declaration of his/her results in that particular phase. Candidates who fail to meet prescribed 50% marks in internal assessment after availing remedial measures will not be eligible for the university exams.

#### **4. INTEGRATION:**

- May be conducted in the form of sharing/nesting/correlation using CBL/PBL/ Case study approach and involving various departments concerned while preparing the specific learning objectives of the integration topics.
- Department involved may be chosen according to the topic and may be conducted as Horizontal/ Vertical form of integration as per the CBME document.

<b>Competency list for integration</b>					
<b>SL</b>	<b>Comp No.</b>	<b>Competency to be integrated</b>	<b>nesting/ sharing/ aligning /correlation</b>	<b>Integrating department</b>	
				<b>Horizontal</b>	<b>Vertical</b>
<b>NOT APPLICABLE</b>					

5. **RECOMMENDED TEXT BOOKS, REFERENCE BOOKS AND ATLAS**

Text books:

1. Operative dentistry by Vimal sikri 2nd edition
2. Text book of Oral Medicine . Burket 11th edition
3. Text book of prosthodontics .Nallaswamy 2nd edition
4. Orthodontics Art and science . S I Bhalajhi 7th edition
5. Caranzas clinical Periodontology Third south Asian edition

**\*\*\*END\*\*\***



SDM College of Medical Sciences & Hospital



SDM College of Dental Sciences & Hospital



SDM College of Physiotherapy &  
SDM Institute of Nursing Sciences



Shri Dharmasthala Manjunatheshwara University



SDM Research Institute for Biomedical Sciences



Panoramic View of Campus