SHRI
DHARMASTHALA
MANJUNATHESHWARA
UNIVERSITY

Ordinance Governing

MBBS Degree Course Phase III
Part - II

Curriculum 2022-23

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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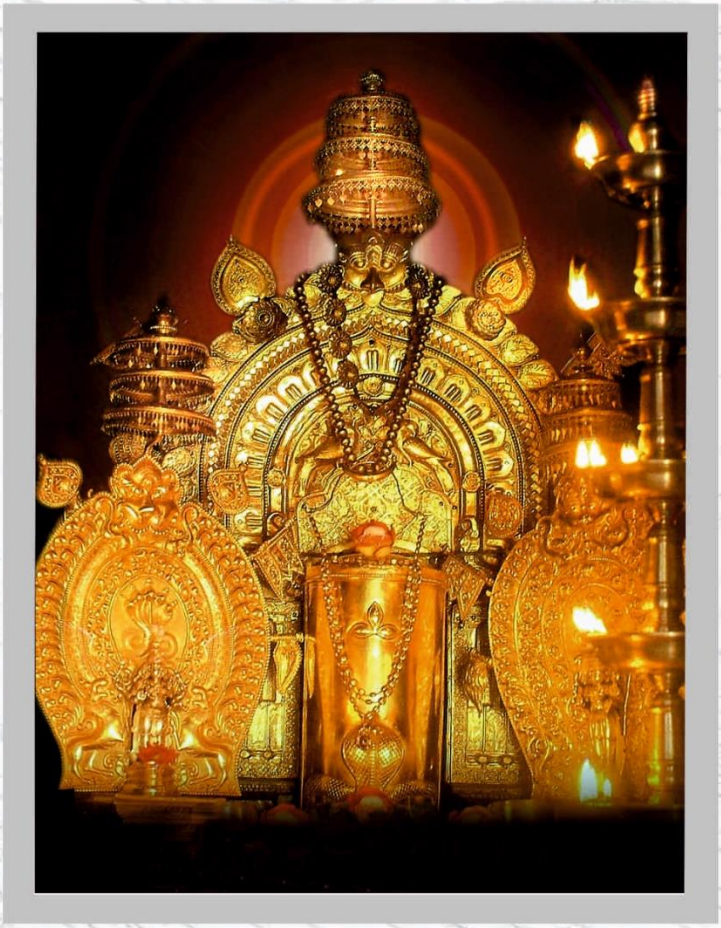
|| Om Shri Manjunathaya Namaha ||



Shree Kshethra Dharmasthala

Edition Year : 2022-23

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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 as hindrance.

SHRI
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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||

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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: 4th 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 3rd Meeting of Academic Council held on 3rd 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.

INDEX

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:

- Competently interview and examine an adult patient and make a clinical diagnosis
- Appropriately order and interpret laboratory 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 medical problems and refer whenever required,
- Communicate effectively, educate and counsel the patient and family,
- Manage common medical emergencies and refer when required.

2.3. Attitude & 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. 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

THEORY	Teaching-Learning Method	No. of Hours
A	Large Group Teaching (LGT)	**70**
B	Small Group Teaching (SGT)	**125**
C	Self-Directed Learning (SDL)	**15**
	Total	**210**

PRACTICAL	Teaching-Learning Method	No. of Weeks
A	Bedside Clinics	**8+4**
	Total	**12**

OTHERS	Teaching-Learning Method	No. of Hours
A	AETCOM	1+2+2=5
B	Pandemic Module	6+4=10
C	Skill Lab	12
	Total	27

4. COURSE CONTENT

3.1. Theory

3.1.1. Large Group Teaching (LGT)

Large Group Teaching (LGT) Theory Classes			
Sl. No	**Topic: Competency (Number & Details)**	**Competency number**	**No. of Hours**
1	Pathophysiology of the hypothalamo-pituitary - thyroid axis, principles of thyroid function testing and alterations in hypo and hyperthyroidism	IM12.1, IM12.2, IM12.3, IM12.4	1
2	Hypothyroidism	IM 12.1, IM12.2, IM12.3, IM12.4	1
3	Hyperthyroidism	IM 12.1, IM12.2, IM12.3, IM12.4	1
4	Grave's disease	IM 12.1, IM12.2, IM12.3, IM12.4	1
5	Diabetes – definition, classification, risk factors, clinical features	IM 11.1, 11.2,11.3,11.4 11.10	1
6	Diabetes mellitus Investigations, treatment and monitoring for diabetes mellitus, treatment of diabetes mellitus.	IM 11.16, 11.17, 11.18	1
7	Diabetic emergencies	IM 11.6, IM 11.9	1
8	Microvascular and macrovascular complications of diabetes	IM 11.5	1
9	Hypertension-Epidemiology, prevalence, pathophysiology including genetic basis, definition, classification of Hypertension.	IM 8.1,8.2, 8.3, 8.4, 8.5 (Patho, Physio)	
10	Hypertension Management pharmacological and non-pharmacological	IM 8.12, 8.13 IM 8.14.. (Pharmac)	
11	Secondary hypertension	IM 8.5, 8.7, 8.11,8.12	

12	Hypertensive crisis- urgency and emergencies	IM 8.6, 8.8, 8.15	
13	Presenting problems in heart disease: Chest pain, severe prolonged chest pain, cardiac arrest, Dyspnoea, fatigue, syncope, palpitations	IM2.8, IM 2.9	
14	Heart failure 1 - epidemiology, pathogenesis, common causes, stages, classification, precipitating factors	IM1.1, 1.2,1.4, 1.5, 1.6, 1.7	
15	Heart failure 2- clinical features, investigations, non-pharmacological and pharmacological management and surgical management of heart failure	IM 1.19, 1.23, 1.24, 1.25	
16	Rheumatic fever Describe and discuss the clinical presentation and features, diagnosis, recognition and management of acute rheumatic fever	IM 1.9	
17	valvular heart disease (including RHD) 1 – clinical features, diagnosis, management and penicillin prophylaxis	IM 1.3, 1.20, 1.27	
18	valvular heart disease (including RHD) 2 – clinical features, diagnosis, management and penicillin prophylaxis	IM 1.3, 1.20, 1.27	

19	Congenital heart diseases presenting in adults- causes Differentiation between cyanotic and non cyanotic CHD…	IM 1.28	
20	Cardiomyopathies, pericardial diseases	IM1.1, 1.2	
21	Atherosclerosis Discuss epidemiology, lipid cycle, etio-pathogenesis, for atherosclerosis and IHD Management of dyslipidemia Non pharmacological and pharmacological Management of dyslipidaemia	IM 2.1, 2.3 IM 2.18	
22	Risk factors, risk stratification for coronary artery disease and preventionDiscuss modifiable and non-modifiable risk factors for atherosclerosis. Discuss the natural history, evolution and complications of atherosclerosis and IHD	IM 2.2, 2.4	
23	Acute coronary Syndrome [NSTEMI]- clinical presentation, natural history and outcome Investigation and management of acute coronary syndrome	IM 2.5, 2.14, 2.15, 2.16, 2.17, 2.20	
24	Acute coronary Syndrome [STEMI]- clinical presentation, natural history and outcome Investigation and management of acute coronary syndrome	IM 2.5, 2.14, 2.15, 2.16, 2.17, 2.20	

25	Acute coronary syndrome complications and management Complications and their management in AMI. including arrhythmias, shock and pulmonary oedema, pericarditis	IM 2.19	
26	Revision	IM 2.19	
27	Brain Anatomy, Functions And Blood Supply : Cerebral Cortex And Locomotor System	IM 18.1, 19.1	
28	Parenchymal infections of the nervous system	SDM competency	
29	epilepsy	SDM competency	
30	Nutritional disorders of CNS	SDM competency	
31	Spinal cord disorders	SDM competency	
32	Acute flaccid paralysis	SDM competency	
33	Peripheral neuropathies	SDM competency	
34	Parkinsonism : Features, Treatment [Drugs, Classification, Indications, Dose, Side Effects And Interactions]	IM 19.8	
35	Cerebellar disorders	SDM competency	
36	Bladder dysfunction		
37	Approach to a patient with stroke	IM 18.1, 18.2, 18.9, 18.11, 18.16	
38	Ischemic Cerebrovascular accidents- Types, Etiopathogenesis, Risk Factors, Features And Management [Initial Supportive Therapy + Specific Treatment] Multidisciplinary Management In Stroke	IM 18.1, 18.2, 18.9, 18.11, 18.16	

39	Hemorrhagic Stroke: Intitial Management And Role Of Surgery	IM 18.14, 18.15	
40	Stroke In Young : Definition And Appropriate Investigations	IM 18.10	
41	revision	SDM competency	
42	PRESENTING PROBLEMS IN RENAL DISEASES-oliguria, edema, hypertension, hematuria, dysuria, loin pain,	IM 10.7	
43	AKI- definition, staging, classification, clinical features, complications, investigations , treatment	IM 10.1-10.4, 10.12 IM 10.4, 10.15, 10.16, 10.17	
44	AKI: ATN, AIN, AGN, Cardiorenal syndromes	IM 10.1-10.4, 10.12 IM 10.4, 10.15, 10.16, 10.17	
45	CKD	IM10.5, 10.6, 10.7, 10.8, IM 10.10, 10.11, 10.15, 10.16, 10.18, 10.19, 10.20, 10.23, 10.24	
46	Disorders of calcium metabolism	IM 22.1, 22.2, 22.3, 22.4	
47	Disorders of sodium metabolism	IM 22.5, 22.6	
48	Disorders of potassium metabolism	IM 22.7, 22.8	
49	Disorders of acid base metabolism	IM 22.9, 22.10, 22.11, 22.12	
50	revision	SDM competency	
51	Sociodemographic changes in the elderly population and ethical issues	IM 24.18, 24.19, 24.20, 24.21	
52	Nutritional disorders in the elderly	IM 24,22	
53	Common problems in elderly :frailty, urinary incontinence, constipation, ADR and polypharmacy	IM 24.1, 24.2, 24.8, 24.12, 24.13, 24.14, 24.16	

54	Falls and fractures in elderly	IM 24.12, 24.13, 24.14	
55	Common problems in elderly falls osteoporosis, degenerative joint disease	IM 24.8, 24.12, 24.13, 24.14, 24.16	
56	Delirium/ Altered Mental Status, depression, personality changes and dementia in the elderly	IM 24.3, 24.5, 24.6, 24.7	
57	Approach to a patient with joint pain	IM 7.3, 7.4, 7.5, 7.6, 7.7, 7.8	
58	Crystalline Arthropathies::Pathophysiology, Genetic Basis ,Clinical Features, Manifestations ,Diagnosis And Management	IM 7.1 ,7.2 ,7.10,7.11,7.13,7.14,7.15,,7.17,7.18,7.19,7.20	
59	Rheumatoid arthritis pathophysiology, genetic basis,clinical approach, systemic manifestations disease, diagnosis and management	IM 7.1 ,7.2 ,7.10,7.11,7.13,7.14,7.15,7.17,7.18,7.19,7.20	
60	Seronegative Arthritis :Pathophysiology, Genetic Basis ,Clinical Features, Manifestations ,Diagnosis And Management	IM 7.1 ,7.2 ,7.10,7.11,7.13,7.14,7.15,7.17,7.18,7.19,7.20	
61	Systemic lupus erythematosus pathophysiology, genetic basis clinical approach, systemic manifestations disease, diagnosis and management	IM 7.1 ,7.2 ,7.10,7.11,7.13,7.14,7.15,7.17,7.18,7.19,7.20	
62	Systemic sclerosis pathophysiology, genetic basis clinical approach, systemic manifestations disease, diagnosis and management	IM 7.1 ,7.2 ,7.10,7.11,7.13,7.14,7.15,7.17,7.18,7.19,7.20	
63	revision	SDM competency	

64	Screening for common malignancies	IM13.1, 13.2, 13.3, 13.4....13.	
65	Paraneoplastic syndromes	IM13.1, 13.2, 13.3, 13.4....13.	
66	Principles of treatment of malignancies	IM13.1, 13.2, 13.3, 13.4....13.	
67	Haematological malignancies	IM13.1, 13.2, 13.3, 13.4....13.	
68	Lymphoreticular malignancies	IM13.1, 13.2, 13.3, 13.4....13.	
69	Common lung cancers IM13.1, 13.2, 13.3, 13.4,	IM13.1, 13.2, 13.3, 13.4....13.	
70	revision	SDM competency	

Small Group Teaching (SGT)

Small Group Teaching (SGT) Tutorials / Seminar / Group discussions etc.				
Topic number And description	**Sl. No**	**Topic: Competency Details**	**Competency Number**	**No. of Hours**
	1	Interpretation of thyroid function tests	IM12.9, 12.11	2
	2	Thyroid disease and pregnancy	SDM competency	2
	3	Describe and discuss the iodisation programs of the government of India	IM12.12	2
	4	Cushing's syndrome and Addison's disease	SDM competency	2
	5	Treatment of diabetes mellitus OHAs Monitoring and compliance	IM11.16, IM11.17, IM11.18, IM11.20, IM11.21,	2
	6	Treatment of diabetes mellitus: insulin therapy. Monitoring and compliance	IM11.19,	2

	7	Classification and diagnosis of hypertension	IM 8.1,8.2, 8.3, 8.4, 8.5	2
	8	treatment of essential hypertension…	IM 8.12, 8.13 IM 8.14	2
	9	Hypertensive urgency and emergency	IM 8.6, 8.8, 8.15	2
	10	Differential diagnosis of chest pain	IM 2.8, 2.9	2
	11	Approach to a patient with shortness of breath	SDM competency	2
	12	Definition, pathophysiology, clinical features, diagnosis and management of heart failure	IM1.1, 1.2,1.4, 1.5, 1.6, 1.7	2
	13	Management of heart failure	IM 1.19, 1.23, 1.24, 1.25	2
	14	Infective Endocarditis	IM1.21, 1.22	2
	15	Cardiac tachyarrhythmias	IM1.8	2
	16	Cardiac brady arrhythmias	IM1.8	2
	17	Deep vein thrombosis and pulmonary embolism	SDM competency	2
	18	Management of dyslipidaemia	IM2.18	2
	19	Cardiovascular risk stratification	IM2.6	2
	20	Coronary vascular disease- approach to stable and unstable angina	IM2.8	2

	21	Investigations in coronary vascular diseases including lipid profile, CXR, ECG, Cardiac markers 2D- ECHO, TMT, CAG in IHD	IM 2.10, 2.11, 2.12	2
	22	Cardiac rehabilitation	IM2.24	2
	23	Diseases of the aorta	SDM competency	2
	24	Stupor, coma and brain death	SDM competency	2
	25	Disorders of speech	IM18.7	2
	26	Spinal cord disorders	IM18.6	2
	27	Extrapyramidal Movement disorders	IM19.1, 19.2, 19.8, IM19.9	2
	28	Disorders of gait	IM19.3,19.4, 19,5, 19.6, 19.7	2
	29	epilepsy	SDM competency	2
	30	Recognizing TACS, PACS, LACS AND POCS by clinical features and radiology	IM 18.3, 18.4, 18.5, 18.6, 18.7, 18.8, 18.9	2
	31	TIA, Cardioembolic strokes,	IM18.2	2
	32	lacunar infarcts, Cortical venous thrombosis	IM18.2	2
	33	Management of ischemic stroke	IM18.11, 18.12, 18.13, 18.16, 18.17	2
	34	Assessment of a patient with renal failure using laboratory and ultrasound methods	IM10.19	2

	35	Calculation of doses of common drugs as per renal status	IM10.25	2
	36	Prevention of CKD	IM10.26	2
	37	Disorders of calcium, phosphorus and magnesium metabolism	IM22.1, 22.2, 22.3,	2
	38	hyponatremia	IM22.5, IM22.6	2
	39	Hypokalaemia and hyperkalemia	Im26.7, 22.8	2
	40	Arterial blood gas analysis	IM22.13	2
	41	Comprehensive geriatric assessment	IM24.2	2
	42	Approach to a patient with joint pain	IM7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9	2
	43	Investigations and interpretation of rheumatologic disorders	IM7.14, 17.15, 17.16, 17.17	2
	44	Disease modifying therapy and biologicals in rheumatologic diseases	IM7.18, 7.19, IM7.20	2
	45	Diabetic ketoacidosis	IM11.23	2
	46	Hypertensive emergency	IM 8.6, 8.8, 8.15	2
	47	Management of shock	SDM competency	2
	48	Management of acute pulmonary edema	SDM competency	2
	49	Management of acute myocardial infarction and mechanical complications post mi	IM 2.5, 2.14, 2.15, 2.16, 2.17, 2.19, 2.20	2

	50	Emergency management of acute severe asthma	SDM competency	2
	51	Principles of oxygen therapy	IM3.17	2
	52	ARDS	SDM competency	2
	53	Mechanical ventilation	SDM competency	2
	54	Upper gastrointestinal bleed	IM 15	2
	55	Principles of blood transfusion	IM9.17	2
	56	Organophosphorus poisoning	IM21.1	2
	57	Status epilepticus	SDM competency	2
	58	Needle stick injuries	IM6.17	2
	59	Interpretation of ABG	IM22.13	2
	60	Drugs and charts	SDM competency	2
	61	Instruments	SDM competency	2
	62	X-rays and scans	SDM competency	2
	63	ECGs	IM 1.18, 2.10, 8.17	1

Self Directed Learning (SDL)			
Sl. No	**Topic: Competency (Details)**	**Competency numbers**	**No. of Hours**
1	Clinical features of the cancer patient	IM13.7, 13.8, 13.9, 13.10,	
2	The 10 hallmarks of cancer, environmental and genetic determinants	IM 13.1, 13.2, 13.3, 13.4	
3	Investigations and staging of cancers	IM13.11, 13.12, 13.13, 13.14, 13.12	
4	Acute oncology	IM IM13.5, 13.6, IM13.14	
5	Therapeutics in oncology	IM13.14	
7	Specific cancers	IM13.4	
8	Survivorship	IM13.16, 13.17, 13.18, 13.19	
9	Good medical practice	Topic IM 26	
10	Clinical decision making	Topic IM 26	
11	Clinical therapeutics and good prescribing	Topic IM 26	
12	Clinical immunology	IM7.1, 7.2	
13	Medicine in austere environments	SDM competency	
14	Population health and epidemiology	SDM competency	
15	Palliative care and pain management	Topic IM 26	

Practical

3.1.2. Bedside Clinics

Bedside Clinics			
Sl. No	**Topic: Competency details [case presentations include data gathering by history, examination, investigations AND differential diagnosis, plan of management, plan of prevention, plan of follow up, palliative measures as applicable, patient education]**	**Suggested TL Method- bedside clinics/DOAP**	**No. of Hours As required**
1	Case presentation-hypothyroidism	IM12.5, 12.6, 12.7, 12.8, 12.9, 12.10, 12.11, 12.14	
2	Case presentation- hyperthyroiodism	IM12.5, 12.6, 12.7, 12.8, 12.9, 12.10, 12.11, 12.14	
3	Case presentation-diabetes mellitus	IM11.7, IM11.8, 11.9, 11.10, 11.11	
4	Case presentation-diabetic foot DOAP- subcutaneous insulin administration	IM11.7, IM11.8, 11.9, 11.10, 11.11, IM11.19	
5	Case presentation- diabetic emergency	IM11.9, IM11.14, IM11.15, IM11.22, IM11.23, IM11.24	
6	Skill lab and certification-Perform and interpret a capillary blood glucose test 2 Perform and interpret a urinary ketone estimation with a dipstick 2	IM11.12 IM11.13	
7	Case presentation- hypertension	IM8.9, 18.10, 18.11, 18.12, 18.13, 18.14, 18.15, 18.16, 18.18, 18.19, 18.20	
8	Case presentation- hypertensive emergency	IM8.15	
9	Case presentation -differential diagnosis for chest pain	IM2.8	
10	Case presentation -differential diagnosis for dyspnoea	SDM competency	
11	-case presentation of acute coronary syndrome-discharge plan and advice at follow-up, Cardiac rehabilitation	IM2.6, 2.7, 2.8, 2.9 IM2.24	
12	Certifiable skill IM2.10 Order, perform and interpret an ECG Bedside clinic, DOAP Session IM1.18 Perform and interpret a 12 lead ECG	IM2.10, 1.18	

13	Case presentation- heart failure	IM1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16, 1.17, 1.18, 1.19	
14	Case presentation- atrial fibrillation	IM1.8	
15	Case presentation-RHD-mitral valve disease	IM1.20	
16	Case presentation-RHD-aortic valve disease	IM1.20	
17	Case presentation-common congenital heart disease	IM1.28	
18	BLS-ACLS certifiable skills	IM2.21, 2.22	
19	History taking in CNS	IM17, 18, 19	
20	Examination of CNS: higher mental functions And signs of meningeal irritation	IM17.4	
21	Examination of CNS: disorders of speech, language and perception, cranial nerves	IM17, 18, 19	
22	Examination of CNS: motor system and reflexes	IM17, 18, 19	
23	Examination of CNS: sensory system and cerebellar system	IM17, 18, 19	
24	Examination of CNS: extrapyramidal functions	IM 19	
25	Case presentation- CVA	IM 18	
26	Case presentation-Aphasia	IM17, 18, 19	
27	Case presentation-Parkinson's disease	IM19	
28	Case presentation-Paraplegia	IM17, 18, 19	
29	Case presentation-Cerebellar disease	IM17, 18, 19	
30	Skill lab- lumbar puncture and CSF analysis	IM17	
31	Assessment of a patient with acute kidney injury	IM 10.12 IM 10.27	
32	Assessment of a patient with chronic kidney disease	IM10	
33	Skill lab ABG Peripheral intravenous catheter	IM 10.20, IM 10.21	
34	Skill lab Male urinary catheterization Female urinary catheterization	IM 10 SDM competency	
35	Skill lab Insertion of a central venous or a dialysis catheter	IM 10.22	
35	Observing hemodialysis using a checklist Patient education in CKD	IM10.27	
36	Geriatric assessment tool	IM24.2	
37	Case presentation- elderly patient with frailty	IM 24	

38	Case presentation- rheumatoid arthritis	IM 7	
39	Case presentation- lymphoreticular malignancy	IM 13	
40	Case presentation- palliative care	IM 13, IM 26	
41	Case presentation-anemia	IM 9	
42	Case presentation-cirrhosis of liver	IM 5	
43	Case presentation-malnutrition	IM 23	
44	Case presentation-pneumonia	IM 3	
45	Case presentation-asthma	SDM competency Integrate with TB and chest	
46	Case presentation-COPD	SDM competency Integrate with TB and chest	
47	Case presentation-pleural effusion	SDM competency Integrate with TB and chest	
48	Case presentation-pneumothorax	SDM competency Integrate with TB and chest	
49	Case presentation- cavitary TB and lung fibrosis	SDM competency Integrate with TB and chest	
50	Case presentation-splenomegaly	SDM competency Integrate with pathology	
51	Case presentation-hepatosplenomegaly	IM 5	
52	Case presentation-Bell's palsy	SDM competency	

3.1.3. Clinical Clerkship / Evening Clinics

Day	Topic	Suggested TL Method
1	Type 2 diabetic patient	OPD presentation
2	Approach to a patient with diabetic coma	Evening Clinics
3	Essential hypertension	OPD presentation
4	Approach to a patient with hypertensive emergency	Evening Clinics
5	Heart failure	OPD presentation
6	Approach to a patient with acute pulmonary edema	Evening Clinics
7	ECG	OPD presentation
8	COPD	OPD presentation
9	Approach to a patient with acute severe asthma	Evening Clinics
10	Approach to a patient with acute chest pain/acs	Evening Clinics
11	Approach to a patient with cardiac arrhythmia	Evening Clinics
12	Approach to a patient with stroke	Evening Clinics
13	Approach to a patient with altered sensorium	Evening Clinics
14	Approach to a patient with neuroinfection	Evening Clinics
15	Epilepsy	OPD presentation
16	Parkinson's disease	OPD presentation
17	Approach to a patient with status epilepticus	Evening Clinics
18	Approach to a patient with sepsis	Evening Clinics
19	Approach to a patient with poisoning Approach to a patient with envenomation	Evening Clinics
20	Approach to a patient with hepatic encephalopathy and gastrointestinal bleeding	Evening Clinics
21	Approach to a patient with electrolyte abnormality	Evening Clinics

3.1.4. Skill Lab

Skill Lab		
Sl. No	**Topic: Competency (Number & Details)**	**No. of Hours**
1	Administration of IM injection IM 1.30 (log book) integration- Pharmacology	1.5
2	BLS- perform and demonstrate IM 2.22	1.5
3	Collecting specimen for blood culture IM 1.22	1.5
4	Interpret ECG IM 1.18, 2.10, 8.17	1.5
5	Technique of LP on a Mannequin 17.8	1.5
6	Common Malignancies: IM13.16 Demonstrate An Understanding And Needs And Preferences Of Patients When Choosing Curative And Palliative Therapy	1.5
7	Common Malignancies: IM13.19 Describe The Therapies Used In Alleviating Suffering In Patients At The End Of Life	1.5
8	11.30-1 PM Skill Lab Male Urinary Catheterization Female Urinary Catheterization	1.5
9	Peripheral Iv Catheter IM 10.21	1.5
10	ABG 10.20, MICU	1.5
11	Insertion Of Central Venous Or A Dialysis Catheter 10.22 Dialysis Unit	1.5
12	Communication Lab Communicate Diagnosis Treatment Plan And Subsequent Follow Up 10.23 Counsel Patients On A Renal Diet 10.24 Dialysis Unit	1.5
13	Deliberate Practice	1.5

3.1.5. Certifiable Skills

Certifiable Skills			
Sl. No	**Skills that require certification**	**Criteria for certification**	**No. of Attempts**
1	IM2.10 Order, perform and interpret an ECG Bedside clinic, DOAP session IM1.18 Perform and interpret a 12 lead ECG OPD		3+3=6
2	IM2.22 Perform and demonstrate in a mannequin BLS		1
3	IM11.12 Perform and interpret a capillary blood glucose test		2
4	IM11.13Perform and interpret a urinary ketone estimation with a dipstick		2

3.2. AETCOM Module

AETCOM Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1	4.1. The foundations of communication (Includes a skill session of two hours)	As per module	5 (1+2+2)

3.3. Pandemic Module

Pandemic Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1	4.1. Care of patients during Pandemics	As per module	6
2	**3.4.** Palliative Care during Pandemics	As per module	4

4. SCHEME OF EXAMINATION

4.1. Eligibility Criteria

- Students must secure at least 50% 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 Summative / University examination.
- Student should have a minimum of 75% attendance in Theory and 80% in Practical classes to be eligible to appear for Summative / University examination.
- Student must have completed the required certifiable competencies and completed the log book

4.2. Internal Assessment

4.2.1. Theory

- Multiple (a minimum of two) Internal Assessments (IA) will be conducted.
- The last IA will be conducted as Preliminary examination, which will mirror the university exams in marks and pattern.
- The final IA marks will be derived based on the table given below.
- The blueprint of all the IAs is also given in the table below.

Table 1: Theory Internal Assessment

DEPARTMENT OF GENERAL MEDICINE Integrated phase-wise Internal Assessment								
THEORY		**Phase 2**		**Phase 3-1**		**Phase 3-2**		**Final Total**
		IA-1	**IA-2**	**IA-3**	**IA-4**	**IA-5**	**IA-6**	
Written	**Theory**	30	25	30	25	75	75	
	MCQ	10	10	10	10	20	20	
	AETCOM*	--	05	--	05	05	05	
FA	**Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments**	05	05	05	10	10	10	
	Logbook	05	05	05	10	10	10	
Total		**50**	**50**	**50**	**60**	**120**	**120**	**450**
FINAL THEORY IA MARKS = 150 (final total divided by 3) * To be included as a question in theory paper # Pandemic module to be included in theory exam 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								

Table 2: Blueprint of IA (Theory)

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

4.2.2. Practical

- Each clinical posting will include and End of Posting (EoP) test.
- The marks allotted for each EoP is tabulated below.
- The preliminary examination will include a practical examination which will mirror the university examination in marks and pattern.

Table 3: Practical Internal Assessment

DEPARTMENT OF GENERAL MEDICINE Integrated phase-wise Internal Assessment						
PRACTICAL		**Phase 2**	**Phase 3-1**	**Phase 3-2**		**Final Total**
		4 weeks	**4 weeks**	**8 weeks**	**4 weeks**	
		EOP-1	**EOP-2**	**EOP-3**	**EOP-4**	
EOP	**Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)**	40	40	60	60	
	Viva-voce (may include AETCOM)	10	10	10	10	
Others	**Formative assessment including Clinical-Clerkship**	05	05	10	10	
	Logbook/ Record book	05	05	10	10	
Total		**60**	**60**	**90**	**90**	**300**

FINAL EOP IA MARKS = 150 (final total divided by 2)

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 Practical Examinations will be conducted for 200 marks & will mirror Summative / University Practical Examinations

$$\text{Final practical IA marks (200)} = \frac{\text{Final EOP marks (150) + Allied Subjects EOP marks (50) + Preliminary Exam (200)}}{2}$$

4.2.3. Formative (Day to Day) Assessment

- Day to Day assessment will be performed and it will be added to the IA marks of theory as well as practical (as in tables above)
- Formative (Day to Day) assessment will be calculated based on attendance, maintenance of record books, log books, journals, case sheets etc
- Any assignments, presentations, seminars or other academic activity of note shall also reflect in the formative assessment

4.2.4. Remedial Assessment

- Remedial Examinations will be conducted as per the policy of Shri Dharmasthala Manjunatheshwara University and will be based on NMC guidelines.

4.3. Summative Assessment

4.3.1. Pass Criteria

- A candidate shall obtain 50% marks in university conducted examination separately in Theory and Practical (practical includes: practical/ clinical and viva voce) in order to be declared as passed in that subject.
- In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass in the said subject.

4.3.2. Theory Summative Examination Format

- Third Professional Part II - (Final Professional) examination shall be at the end of training (14 months including 2 months of electives) in the subjects of General Medicine, General Surgery, Obstetrics & Gynecology and Pediatrics.
- The disciplines of Orthopedics, Anesthesiology, Dentistry and Radiodiagnosis will constitute 25% of the total theory marks incorporated as a separate section in paper II of General Surgery.
- The disciplines of Psychiatry and Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis will constitute 25% of the total theory marks in General Medicine incorporated as a separate section in paper II of General Medicine.

4.3.3. Blueprint of Theory Summative Examination

Table 4: Blueprint of theory summative examination

Blueprint of Theory Summative Examination (Question paper wise)	**Paper 1**	**Paper 2**
Multiple Choice Questions **(MCQ)** **(1 mark each)**	20	20
Structured Long Essay Questions **(SLEQ)** **(10 marks each)**	02	02
Short Essay Questions **(SEQ)** **(5 marks each)**	08	08
Short Answer Questions **(SAQ)** **(2 marks each)**	10	10
TOTAL	**100**	**100**
AETCOM should have a weightage of 5 marks in each paper		

Table 5: Blueprint (Topic based) of theory summative examination

	Blueprint of Theory Summative Examination (Topic based weightage) paper 1						
	Topic / System	**Total Weightage**	**MCQ**	**SLEQ**	**SEQ**	**SAQ**	**Total Marks**
1	5. Liver disease	3					upto10
2	15. GI bleeding	3					upto 10
3	9. Anemia	3					upto 10
4	1. Heart Failure	3					upto 10
5	2. Acute Myocardial Infarction/ IHD	3					upto 10
6	8. Hypertension	3					upto 10
7	11. Diabetes Mellitus	3					upto 10
8	17. Headache	3					upto 10
9	18. Cerebrovascular accident	3					upto 10
10	12. Thyroid dysfunction	2					upto 5
11	19. Movement disorders	2					upto 5
12	10. Acute Kidney Injury and Chronic renal failure	2					upto 5
13	21. Mineral, Fluid Electrolyte and Acid base Disorder	2					upto 5
14	23. Nutritional and Vitamin Deficiencies	2					upto 5
15	14. Obesity	2					upto 5
16	AETCOM [Role of physician]	2					upto 5
	total	3-most important and crucial for general medicine practice as physician of first contact 2- very important for general medicine practice as physician of first contact 1-important for general medicine practice as physician of first contact					100

Table 6: Blueprint (Topic based) of theory summative examination

	Blueprint of Theory Summative Examination (Topic based weightage) paper 2A						
SL NO	**Topic / System**	**Total Weightage**	**MCQ**	**SLEQ**	**SEQ**	**SAQ**	**Total Marks**
	General medicine						
1	3. Pneumonia	3					UPTO 10
2	4. Fever and febrile syndromes	3					UPTO 10
3	25. Miscellaneous Infections	3					UPTO 10
4	20. Envenomation	3					UPTO 10
5	21. Poisoning	3					UPTO 10
6	6. HIV	2					UPTO 5
7	16. Diarrheal disorder	2					UPTO 5
8	24. Geriatrics	2					UPTO 5
9	7. Rheumatologic problems	2					UPTO 5
10	13. Common malignancies	1					UPTO 2
		3-most important and crucial for general medicine practice as physician of first contact 2- very important for general medicine practice as physician of first contact 1-important for general medicine practice as physician of first contact					50

Blueprint of Theory Summative Examination (Topic based weightage) paper 2B						
Topic / System	**Total Weightage**	**MCQ**	**SLEQ**	**SEQ**	**SAQ**	**Total Marks**
Chest and TB	3	3	1		1	15
DERMATOLOGY, VENEREOLOGY & LEPROSY	2	6		1	2	15
Psychiatry	2	1		2	2	15
AETCOM				1		5

4.3.4. Practical Summative Examination Format

Practical Summative Examination Format		**Number of cases**	**Marks allotted for each case**	**Total (Marks)**
Clinical Cases	Long cases+ Communication skills	1	60+10	60+10
	Short cases	1- Diagnostic 2- Therapeutic	30 30	60
	Emergency case scenarios	2	10	20
	AETCOM	1	10	10
Viva-voce		Drugs and Instruments charts and spotters from allied subjects Xrays and scans ECGs	10 10 10 10	40
TOTAL				200

5. INTEGRATION (HORIZONTAL & VERTICAL)

INTEGRATION					
Sl. no	**Competency Number**	**Competency Detail**	**Nesting / Sharing / Aligning / Correlation**	**Integration with departments**	
				Horizontal	**Vertical**
1.	IM 24.16	Disability and rehabilitation: international classification of functioning and disability, rehabilitation process, multidisciplinary team, outcomes		PMR/ Orthopedics	
2.	IM 24.14	Common Fractures in elderly :presentation, diagnosis, management and acute care with rehabilitation		Psychiatry	
3.	IM 24.11	Pre- op work :history, comorbidities, drug history and general with systemic examination investigations – risk stratification		Psychiatry	
4.	IM 24.10	COPD: aetiopathogenesis, clinical presentation, diagnosis, acute and long-term management		ENT	
5.	IM 24.12	Degenerative joint diseases/ OA: aetiopathogenesis, clinicalpresentation, diagnosis, education		Opthalmology	

		and general measures, physiotherapy			
	IM 24.5	Depression: aetiology, diagnosis, management, prognosis, psychological treatments		Orthopedics	
	IM 24.7	Personality changes: definition, types, aetiology, management, prognosis		Orthopedics	
	IM 24.17	Hearing loss: aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation		surgery	
	IM 24.15	Vision: aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation:		surgery	
	IM7.3,7.4,7.6,7.8,7.9.	Arthritis - Pathophysiology,Classification And Causes , Clinical Features		surgery	
	IM 7.1 ,7.2 ,7.10,7.11,7.13,7.14,7.15, ,7.17,7.18,7.19,7.20	Crystalline Arthropathies::pathophysiology, genetic basis ,clinical features,		surgery	

		manifestations ,dianosis and management			
	IM13.13	Describe and assess pain and suffering objectively in a patient with cancer		surgery	
	IM13.14	Describe the indications for surgery, radiation and chemotherapy for common malignancies		surgery	
	IM13.17	Describe and enumerate the indications, use, side effects of narcotics in pain alleviation in patients with cancer		surgery	
	IM13.12	Describe the indications and interpret the results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers		surgery	
	IM13.14	Describe the indications for surgery, radiation and chemotherapy for common malignancies		surgery	
	IM13.17	Describe and enumerate the indications, use, side effects of narcotics in pain alleviation in patients with cancer		surgery	

6. RECOMMENDED BOOKS

6.1. 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,
Praveen Kumar Michal Clark, Clinical Medicine,
Maxine A P Current medical diagnosis and treatment
Washington manual of medical therapeutics
Michael Glyms, Hutchison's clinical methods
Graham D, Macleod's clinical examination
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

Journals

Journal of Association of Physicians of India

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GENERAL SURGERY

1. GOAL

- 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

a. 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.

b. Skills

- 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).

c. Attitude & Communication Skills

At the end of the course, the learner should 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.

d. 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

THEORY	Teaching-Learning Method	No. of Hours
A	Large Group Teaching (LGT)	**70**
B	Small Group Teaching (SGT)	**125**
C	Self Directed Learning (SDL)	**15**
	Total	**210**

PRACTICAL	Teaching-Learning Method	No. of Weeks
A	Bedside Clinics	**8+4**
	Total	**12**

OTHERS	Teaching-Learning Method	No. of Hours
A	AETCOM	5+5 (AH)
B	Pandemic Module	0
C	Skill Lab	As applicable
	Total	

4. COURSE CONTENT

a. Theory

i. Large Group Teaching (LGT)

Large Group Teaching (LGT) Theory Classes			
Sl. No	**Topic: Competency (Number & Details)**	**Competency**	**No. of Hours**
1	Describe principles of Preoperative assessment.	SU11.1	1
2	Enumerate the principles of general, regional, and local Anaesthesia.	SU11.1	1
3	Describe principles of providing post-operative pain relief and management of chronic pain	SU11.5	1
4	Describe pathophysiology, clinical features, Investigations and principles of management of Hernias	SU28.1	3
5	Describe the applied Anatomy and physiology of oesophagus	SU28. 5	1
6	Describe the clinical features, investigations and principles of management of benign and malignant disorders of oesophagus	SU28.6	2
7	Describe the applied anatomy and physiology of stomach	SU28.7	1
8	Describe and discuss the aetiology, the clinical features, investigations and principles of management of congenital hypertrophic pyloric stenosis, Peptic ulcer disease, Carcinoma stomach	SU28.8	4
9	Describe causes, clinical features, complications and principles of management of peritonitis	SU28.3	1
10	Describe pathophysiology, clinical features, investigations and principles of management of Intra-abdominal abscess, mesenteric cyst, and retroperitoneal tumours	SU28.4	2

11	Describe the applied anatomy of liver. Describe the clinical features, Investigations and principles of management of liver abscess, Hydatid disease, injuries and tumours of the liver	SU28.10	4
14	Describe the applied anatomy of spleen. Describe the clinical features, investigations and principles of management of splenic injuries. Describe the post-splenectomy sepsis – prophylaxis	28.11	2
15	Describe the applied anatomy of small and large intestine	SU28.13	1
16	Describe the clinical features, investigations and principles of management of disorders of small and large intestine including neonatal obstruction and Short gut syndrome	SU28.14	8
17	Describe the clinical features, investigations and principles of management of diseases of Appendix including appendicitis and its complications.	SU28.15	2
18	Describe applied anatomy including congenital anomalies of the rectum and anal canal	SU 28.16	1
19	Describe the clinical features, investigations and principles of management of common anorectal diseases	SU28.17	4
20	Describe the clinical features, principles of investigation, prognosis and management of pancreatitis	SU24.1	3
21	Describe the clinical features, principles of investigation, prognosis and management of exocrine pancreatic tumours	SU24.2	2
22	Describe the clinical features, principles of investigation, prognosis and management of endocrine pancreatic tumours	SU24.3	1
23	Describe the causes, investigations and principles of management of Haematuria	SU29.1	1

24	Describe the clinical features, investigations and principles o management of congenital anomalies of genitourinary system	SU29.2	1
25	Describe the Clinical features, Investigations and principles of management of urinary tract infections	SU29.3	1
26.	Describe the clinical features, investigations and principles of management of Hydronephrosis	SU29.4	1
27	Describe the clinical features, investigations and principles of management of renal calculi	SU29.5	2
28	Describe the clinical features, investigations and principles of management of renal tumours	SU29.6	1
29	Describe the principles of management of acute and chronic retention of urine	SU29.7	1
30	Describe the clinical features, investigations and principles of management of bladder cancer	SU29.8	1
31	Describe the clinical features, investigations and principles of management of disorders of prostate	SU29.9	1
32	Describe clinical features, investigations and management of urethral strictures	SU29.11	1
33	Describe the clinical features, investigations and principles of management of phimosis, paraphimosis and carcinoma penis	SU30.1	1
34	Describe the applied anatomy clinical features, investigations and principles of management of undescended testis.	SU30.2	1
35	Describe the applied anatomy clinical features, investigations and principles of management of epidydimo-orchitis	SU30.3	1
36	Describe the applied anatomy clinical features, investigations and principles of management of varicocele	SU30.4	1

37	Describe the applied anatomy clinical features, investigations and principles of management of hydrocele	SU30.5	1
38	Describe the applied anatomy clinical features, investigations and principles of management of testicular tumours	SU30.6	1
39	Describe the immunological basis of organ transplantation. Discuss the Principles of immunosuppressive therapy. Enumerate Indications, describe surgical principles, management of organ transplantation	SU13.1,13.2	1
40	Describe the etiology, pathogenesis, clinical features of tumours of lung and the principles of management	SU26.3	2
41	Enumerate the indications and principles of day care General Surgery	SU11.4	1
42	Describe Principles of safe General Surgery	SU11.6	1
43	Describe classification of hospital waste and appropriate methods of disposal	SU15.1	1
Total			**70 Hrs**

ii. Small Group Teaching (SGT)

Small Group Teaching (SGT) Tutorials / Seminar / Group discussions etc.				
Sl. No	**Topic: Competency (Number & Details)**	**Competency**	**SGT Subtype**	**No. of Hours**
1	Discuss the legal and ethical issues concerning organ donation	SU13.3	AETCOM	2
2	Counsel patients and relatives on organ donation in a simulated environment	SU13.4	AETCOM	2
3	Instrument &sutures-1	SU14.2	Instruments	2
4	Instrument &sutures(revision)	SU14.3	Instruments	2
5	Incision and drainage of abscess. Hilton's technique. Breast abscess. Parotid abscess	SU18.1 & 25.2	Operative surgery	2
6	Excision biopsy: Lipoma, sebaceous cyst, lymph node biopsy	SU18.2 & 27.4	Operative surgery	2
7	Lower limb amputation	SU27.4	Operative surgery	2

8	Surgery for varicose veins	SU27.6	Operative surgery	2
9	Tracheostomy	NA	Operative surgery	2
10	Thyroidectomy	SU22.4	Operative surgery	2
11	Excision of fibroadenoma. Mastectomy	SU25.3	Operative surgery	2
12	Abdominal incisions	NA	Operative surgery	2
13	Gastrojejunostomy	SU28.8	Operative surgery	2
14	Splenectomy	SU28.11	Operative surgery	2
15	Cholecystectomy	SU28.12	Operative surgery	2
16	Ileostomy & Colostomy	SU28.13	Operative surgery	2
17	Appendectomy	SU28.14	Operative surgery	2
18	Lords' dilatation haemorrhoidectomy	SU28.15	Operative surgery	2
19	Hernia surgery	SU28.16	Operative surgery	2
20	Catheterisation. Suprapubic cystostomy	SU29.7	Operative surgery	2
21	Circumcision. Orchidectomy. Palamo's operation	SU30.1 & 30.6	Operative surgery	2
22	Surgery for hydrocele	SU30.5	Operative surgery	2
23	X-ray class -plain	NA	Radiology class	2
24	X-ray class -contrast	NA	Radiology class	2
25	Pathology specimens	NA	Specimen class	2
26	Metabolic acidosis	SU12.2	Tutorial	2
27	Metabolic alkalosis	SU12.2	Tutorial	2
28	Electrolyte imbalances	SU12.2	Tutorial	2
29	Epigastric mass	SU28.8	Tutorial	2
30	Lumbar mass	SU29.6	Clinical approach	2
31	Right iliac fossa mass	SU28.15 & SU28.14	Clinical approach	2
32	Scrotal swelling	SU30.6 & SU30.5	Clinical approach	2
33	Inguinoscrotal and inguinal swellings	SU28.1	Clinical approach	2
34	Obstructive jaundice	SU28.10	Clinical approach	2
35	Principles of cancer management	SU9.2	Tutorial	2
36	Non variceal upper GI bleeding	SU28.8	Tutorial	2
37	Variceal upper GI bleeding	SU28.10	Tutorial	2
38	Lower GI bleeding	SU28.14	Tutorial	2
39	Management of carcinoma breast	SU25.1,2,3	Tutorial	2
40	Management of carcinoma thyroid	SU22.4	Tutorial	2

41	Management of testicular tumours	SU30.6	Tutorial	2
42	Clinical approach to cervical lymphadenopathy	SU27.4	Clinical approach	2
43	X-ray class -plain		Revision	2
44	X-ray class -contrast		Revision	2
45	Perforation of peptic ulcer	SU28.3	Tutorial	2
46	Clinical approach to retroperitoneal mass	SU28.18	Clinical approach	2
47	Clinical approach to oral ulcer	SU20.1	Clinical approach	2
48	Lymphedema	SU27.4	Tutorial	2
49	Clinical approach to a case of leg ulcer -2	SU5.2	Clinical approach	2
50	Clinical approach to subcutaneous swellings	SU18.2	Clinical approach	2
51	Foot complications from diabetes	SU5.2	Tutorial	2
52	Hydronephrosis	SU29.4	Tutorial	2
53	Renal calculi	SU29.5	Tutorial	2
54	Gastric outlet obstruction	SU28.8	Tutorial	2
55	Renal cell carcinoma	SU29.6	Tutorial	2
56	Fluid management in children	SU12.2	Tutorial	2
57	Solid tumours in paediatric surgery	SU29.6	Tutorial	2
58	Acute scrotum in paediatric surgery	SU30.6 & SU30.5	Tutorial	2
59	Acute intestinal obstruction in pedantic	SU28.14	Tutorial	2
60	Preoperative antibiotics	SU11.6	Tutorial	2
61	Premalignant oral lesions	SU20.1	Tutorial	2
62	Premalignant colon lesions	SU28.14	Tutorial	2
63	Revision	--	--	1
Total				**125 Hrs**

iii. Self Directed Learning (SDL)

Self Directed Learning (SDL)		
Sl. No	**Topic: Competency (Number & Details)**	**No. of Hours**
1	Anatomy of peritoneal spaces and its clinical correlation	01
2	Physiology of Thyroid hormone synthesis and all the drugs acting on the pathway	01
3	Physiology of haemoglobin metabolism and its relation to jaundice	01
4	Anatomy of thyroid gland in correlation to thyroidectomy	01
5	Anatomy of inguinal canal and its usefulness in hernia surgery	02
6	Anatomy of anterior abdominal wall and its correlation to ventral hernias	02
7	Wagner's classification of diabetic foot ulcer	01
8	The etiopathogenesis of diabetic foot ulcer disease	01
9	ATLS (Advanced Trauma Life Support): Part I	01
10	ATLS (Advanced Trauma Life Support): Part II	01
11	"Deadly Dozen" in chest injury	01
12	Acute abdomen: Differential diagnosis	01
13	Acute abdomen: Initial resuscitation and management	01
	Total	**15 Hrs**

b. Practical

i. Bedside Clinics

Bedside Clinics				
Sl. No	**Topic: Competency (Number & Details)**	**Competency**	**Suggested TL Method**	**No. of Hours**
1.	**Ulcer:** Elicit, document and present a history in a patient presenting with wounds.	SU 5.2	Bedside clinics / DOAP	As required
2.	**Swelling:** Describe and demonstrate the clinical examination of surgical patient including swelling and order relevant investigation for diagnosis. Describe and discuss appropriate treatment plan.	SU18.3	Bedside clinics / DOAP	As required
3.	**Peripheral vascular disease:** Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease(artery)	SU 27.2	Bedside clinics / DOAP	As required
4	**Varicose veins:** Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease (veins)	SU 27.2	Bedside clinics / DOAP	As required
5	**Lymph nodes:** Demonstrate the correct examination of the lymphatic system and enumerate and describe the investigation of lymph node enlargement	SU 27.2	Bedside clinics / DOAP	As required
6	**Hernia:** Demonstrate the correct technique to examine the patient with hernia and identify different types of hernias.	SU28.2	Bedside clinics / DOAP	As required
7	**Scrotal swelling:** Demonstrate the correct technique to examine the patient with scrotal swelling and identify different causes for scrotal swelling.	SU30.5 & SU30.6	Bedside clinics / DOAP	As required
8	**Goitre:** Demonstrate and document the correct clinical examination of thyroid	SU22.3	Bedside clinics / DOAP	As required

	swellings and discus the differential diagnosis and their management			
9	**Breast lump:** Demonstrate and document the correct clinical examination of breast lump and discus the differential diagnosis and their management	SU25.5	Bedside clinics / DOAP	As required
10	**Mass abdomen:** Describe and demonstrate clinical examination of abdomen. Order relevant investigations. Describe and discuss appropriate treatment plan	SU28.18	Bedside clinics / DOAP	As required
11	**Obstructive jaundice:** Describe and demonstrate clinical examination of a case of obstructive jaundice. Order relevant investigations. Describe and discuss appropriate treatment plan	SU28.12	Bedside clinics / DOAP	As required
12	**Liver:** 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	Bedside clinics / DOAP	As required
13	**Stomach mass:** 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	Bedside clinics / DOAP	As required
14	**Splenic mass:** Demonstrate the correct technique of examination of a patient with splenomegaly. Order relevant investigations. Describe and discuss appropriate treatment plan	SU28.11	Bedside clinics / DOAP	As required
15	**Renal mass:** Demonstrate the correct technique of examination of a patient with renal mass. Order relevant investigations. Describe and discuss appropriate treatment plan	SU28.4	Bedside clinics / DOAP	As required
Apart from the above-mentioned cases other commonly seen cases will be taught based on availability.				

ii. Clinical Clerkship / Evening Clinics

Clinical Clerkship / Evening Clinics			
Day	**Topic**	**Suggested TL Method**	**No. of Hours**
OPD	• Ward beds allocation to student • Case sheet writing • Investigations in different surgical diseases • Writing a drug chart	DOAP SGD	01 / week*
Post OPD	• Follow up writing • Pre-operative work up • Taking an informed written consent • Specialised consents • Pre-operative instruction writing	DOAP SGD	01 / week*
OT	• Importance of checklist in pre-op • Donning and doffing • OT notes writing • Post-operative patient monitoring	DOAP SGD	01 / week*
Post OT	• Post-operative follow up • Drains and their importance • Drain and wound care	DOAP SGD	01 / week*
Ward Rounds	• Dressing different ulcers • Dressing materials and etiquettes • Ward procedures (assist/perform)	DOAP SGD	01 / week*
Hours are subject to change based on time table and public holidays			

iii. Skill Lab

Skill Lab			
Sl. No	**Topic: Competency (Number & Details)**	**Competency**	**No. of Hours**
1	Perform basic surgical Skills such as First aid including suturing and minor surgical procedures in simulated environment	SU10.4	As per allocation
2	Demonstrate Airway maintenance. Recognize and manage tension pneumothorax, haemothorax and flail chest in simulated environment.	SU17.10	
3	Demonstrate the techniques of asepsis and suturing in a simulated environment	SU14.4	
4	Observe common surgical procedures and assist in minor surgical procedures; Observe emergency lifesaving surgical procedures.	SU10.3	

iv. Certifiable Skills

Certifiable Skills			
Sl. No	**Skills that require certification**	**No. of Attempts**	**Criteria for certification**
1	Basic suturing (I)	03	Performs / Demonstrates with due proficiency which is certified by the faculty in charge
2	Basic wound care (I)	03	
3	Basic bandaging (I)	03	
4	Incision and drainage of superficial abscess (I)	03	
5	Early management of trauma (I) and trauma life support (D)	03	
I = Perform Individually D = Demonstrates			

c. AETCOM Module

AETCOM Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1	**Module 4.4:** Case studies in ethics empathy and the doctor-patient relationship (Palliative care in terminal cancer)	As per module	**5** (1+2+1+1) Includes 2 Hrs of SDL
2*	**Module 4.8:** Dealing with death (Loss of a patient) **This module will alternate between the departments of General Surgery and OBG on yearly basis*	As per module	**5** (1+2+1+1) Includes 2 Hrs of SDL
		Total	**10 Hrs** (Including 4 Hrs SDL)

d. Pandemic Module

Pandemic Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
--- NOT APPLICABLE---			

5. SCHEME OF EXAMINATION

a. Eligibility Criteria

- Students must secure at least 50% 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 Summative / University examination.
- Student should have a minimum of 75% attendance in Theory and 80% in Practical classes to be eligible to appear for Summative / University examination.
- Student must have completed the required certifiable competencies and completed the log book

b. Internal Assessment

i. Theory

- Multiple (a minimum of two) Internal Assessments (IA) will be conducted.
- The last IA will be conducted as Preliminary examination, which will mirror the university exams in marks and pattern.
- The final IA marks will be derived based on the table given below.
- The blueprint of all the IAs is also given in the table below.

Table 1: Theory Internal Assessment

DEPARTMENT OF GENERAL SURGERY Integrated phase-wise Internal Assessment								
THEORY		**Phase 2**		**Phase 3-1**		**Phase 3-2**		**Final Total**
		IA-1	**IA-2**	**IA-3**	**IA-4**	**IA-5**	**IA-6**	
Written	**Theory#**	30	25	30	25	75	75	
	MCQ	10	10	10	10	20	20	
	AETCOM*	--	05	--	05	05	05	
FA	**Formative assessment: SDL/Class tests/ MCQs/ Tutorials/ Seminars/ Assignments**	05	05	05	10	10	10	
	Logbook	05	05	05	10	10	10	
	Total	**50**	**50**	**50**	**60**	**120**	**120**	**450**
FINAL THEORY IA MARKS = 150 (final total divided by 3) * To be included as a question in theory paper # Pandemic module to be included in theory exam 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								

Table 2: Blueprint of IA (Theory)

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

6.1.1. Practical

- Each clinical posting will include and End of Posting (EoP) test.
- The marks allotted for each EoP is tabulated below.
- The preliminary examination will include a practical examination which will mirror the university examination in marks and pattern.

Table 3: Practical Internal Assessment

DEPARTMENT OF GENERAL SURGERY Integrated phase-wise Internal Assessment						
PRACTICAL		**Phase 2**	**Phase 3-1**	**Phase 3-2**		**Final Total**
		4 weeks	**4 weeks**	**8 weeks**	**4 weeks**	
		EOP-1	**EOP-2**	**EOP-3**	**EOP-4**	
EOP	**Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)**	40	40	60	60	
	Viva-voce (may include AETCOM)	10	10	10	10	
Others	**Formative assessment including Clinical-Clerkship**	05	05	10	10	
	Logbook/ Record book	05	05	10	10	
	Total	**60**	**60**	**90**	**90**	**300**

FINAL EOP IA MARKS = 150 (final total divided by 2)

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 Practical Examinations will be conducted for 200 marks & will mirror Summative / University Practical Examinations

$$\text{Final practical IA marks (200)} = \frac{\text{Final EOP marks (150) + Allied Subjects EOP marks (50) + Preliminary Exam (200)}}{2}$$

6.1.2. Formative (Day to Day) Assessment

- Day to Day assessment will be performed and it will be added to the iA marks of theory as well as practical (as in tables above)
- Formative (Day to Day) assessment will be calculated based on attendance, maintenance of record books, log books, journals, case sheets etc
- Any assignments, presentations, seminars or other academic activity of note shall also reflect in the formative assessment

6.1.3. Remedial Assessment

- Remedial Examinations will be conducted as per the policy of Shri Dharmasthala Manjunatheshwara University and will be based on NMC guidelines.

c. Summative Assessment

i. Pass Criteria

- A candidate shall obtain 50% marks in university conducted examination separately in Theory and Practical (practical includes: practical/ clinical and viva voce) in order to be declared as passed in that subject.
- In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass in the said subject.

ii. Theory Summative Examination Format

- Third Professional Part II - (Final Professional) examination shall be at the end of training (14 months including 2 months of electives) in the subjects of General Medicine, General Surgery, Obstetrics & Gynecology and Pediatrics.
- The disciplines of Orthopedics, Anesthesiology, Dentistry and Radiodiagnosis will constitute 25% of the total theory marks incorporated as a separate section in paper II of General Surgery.
- The disciplines of Psychiatry and Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis will constitute 25% of the total theory marks in General Medicine incorporated as a separate section in paper II of General Medicine.

iii. Blueprint of Theory Summative Examination

Table 4: Blueprint of theory summative examination

Blueprint of Theory Summative Examination	**Paper 1**	**Paper 2**
Multiple Choice Questions (MCQ) (1 mark each)	20	20
Structured Long Essay Questions (SLEQ) (10 marks each)	02	02
Short Essay Questions (SEQ) (5 marks each)	08	08
Short Answer Questions (SAQ) (2 marks each)	10	10
TOTAL	**100**	**100**
AETCOM should have a weightage of 5 marks in each paper		

Table 5: Blueprint (Topic based) of theory summative examination

Blueprint of Theory Summative Examination (Topic based weightage) *					
Topic / System	**MCQ**	**SLEQ**	**SEQ**	**SAQ**	**Total Marks**
Principles of Surgery: (General, Investigations, Peri-operative care)					20
Trauma					10
Skin & subcutaneous Tissue					10
Breast, thyroid and other endocrine diseases					15
Vascular Diseases: Arterial, Venous and Lymphatic					10
GI Tract and Abdomen					30
Hernias					10
Cardiothoracic surgery					5
Urology & andrology					20
Plastic & reconstructive surgery					5
Neurosurgery					5
Allied subjects (Orthopaedics, Radiology, Anaesthesia, Dentistry, PM & R)					50
7. AETCOM (5 marks per paper)					10
Total					**200**

- Further division of topic based marks will be as per existing Shri Dharmasthala Manjunatheshwara University Guidelines

Surgery Paper I	
Principles of Surgery (General, investigations, perioperative care & trauma)	30
Skin & subscutaneous tissue	10
Breast, thyroid and other endocrine diseases	15
GI tract and abdomen	30
Hernias	10
AETCOM	05
TOTAL	**100**

Surgery Paper II (2a+2b)	
Vascular diseases: Arterial, Venous & lymphatic	10
Cardiothoracic surgery	05
Urology & andrology	20
Plastic & reconstructive surgery	05
Neurosurgery	05
AETCOM	05
Allied subject (Paper 2b)	50
TOTAL	**100**

iv. Practical Summative Examination Format

Practical Summative Examination: Surgery, Orthopaedics & Allied subjects			
GENERAL SURGERY	**Clinical**	Long Case	**70**
		Short Case - 1	**30**
		Short Case - 2	**30**
	Viva Voce	Specimen	**5**
		X - Rays	**5**
		Instruments	**5**
		Operative Surgery	**5**
ORTHOPAEDICS	**Clinical**	Short Case - 3	**15**
		Short Case - 4	**15**
	Viva Voce	Includes X - Rays, Instruments and General Orthopaedic Viva	**5**
ALLIED SURGICAL SUBJECTS (Anaesthesia, Radiology, Dentistry, PM & R)	**Spotters, Charts, Practical Problem Solving**		**15**
		Total	**200**

6. INTEGRATION (HORIZONTAL & VERTICAL)

INTEGRATION				
Competency Number	**Competency Detail**	**TL Method**	**Departments Involved**	
			Pre & Para Clinical	**Clinical**
ANAESTHESIA				
AS3.3	Demonstrate and document an appropriate clinical examination in a patient undergoing General Surgery	DOAP session, Bedside clinic		General Surgery, General Medicine
AS3.4	Choose and interpret appropriate testing for patients undergoing Surgery	DOAP session, Bedside clinic		General Surgery, General Medicine
AS3.5	Determine the readiness for General Surgery in a patient based on the preoperative evaluation	DOAP session, Bedside clinic		General Surgery, General Medicine
AS5.6	Observe and describe the principles and steps/ techniques involved in common blocks used in Surgery (including brachial plexus blocks)	Lecture, Small group discussion, DOAP session		General Surgery
AS6.3	Describe the common	Lecture, Small group		General Surgery

	complications encountered by patients in the recovery room, their recognition and principles of management	discussion, DOAP session		
AS9.3	Describe the principles of fluid therapy in the preoperative period	Lecture, Small group discussion, DOAP session		General Surgery
AS9.4	Enumerate blood products and describe the use of blood products in the preoperative period	Lecture, Small group discussion, DOAP session	Pathology	General Surgery
AS10.3	Describe the role of communication in patient safety	Lecture, Small group discussion, DOAP session	AETCOM	General Surgery

MEDICINE				
IM5.8	Describe and discuss the pathophysiology, clinical evolution and complications of cholelithiasis and cholecystitis	Lecture, Small group discussion	General Surgery	
IM5.13	Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver disease	Bed side clinic, Small group discussion	Radiodiagnosis	General Surgery
IM5.16	Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites, spontaneous, bacterial peritonitis and hepatic encephalopathy	Written, Small group discussion	Pharmacology	General Surgery
IM5.18	Enumerate the indications for hepatic transplantation	Written, Small group discussion		General Surgery
IM12.6	Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and severity including systemic signs of thyrotoxicosis and hypothyroidism, palpation of the pulse for rate and rhythm abnormalities, neck palpation of the thyroid and lymph nodes and cardiovascular findings	Bed side clinic, DOAP session		General Surgery
IM12.7	Demonstrate the correct technique to palpate the thyroid	Bedside clinic, DOAP session		General Surgery
IM12.8	Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis	Bedside clinic, small group discussion		General Surgery
IM12.9	Order and interpret diagnostic testing based on the clinical diagnosis including CBC, thyroid function tests and ECG and radio iodine uptake and scan	Bed side clinic, DOAP session		General Surgery
IM12.10	Identify atrial fibrillation, pericardial effusion and bradycardia on ECG	Bedside clinic, lab		General Surgery
IM12.11	Interpret thyroid function tests in hypo-and hyperthyroidism	Bedside clinic, lab		General Surgery

IM12.13	Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs	Lecture, Small group discussion	Pharmacology	General Surgery
IM12.15	Describe and discuss the indications of thionamide therapy, radio iodine therapy and Surgery in the management of thyrotoxicosis	Bedside clinic, Small group discussion	Pharmacology	General Surgery
IM13.7	Elicit document and present a history that will help establish the aetiology of cancer and includes the appropriate risk factors, duration and evolution	Bedside clinic		General Surgery
IM13.8	Perform and demonstrate a physical examination that includes an appropriate general and local examination that excludes the diagnosis, extent spread and complications of cancer	Bedside clinic		General Surgery
IM13.9	Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and pap smear	Bedside clinic	Human Anatomy	General Surgery
IM13.10	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	Bedside clinic		General Surgery
IM13.13	Describe and assess pain and suffering objectively in a patient with cancer	Bedside clinic, Small group discussion	Pharmacology	General Surgery
IM13.14	Describe the indications for General Surgery, radiation and chemotherapy for common malignancies	Bedside clinic, Small group discussion	Pharmacology	General Surgery
IM14.14	Describe and enumerate the indications and side effects of bariatric surgery	Lecture, Small group discussion		General Surgery
IM15.1	Enumerate, describe and discuss the aetiology of upper and lower GI bleeding	Lecture, Small group discussion	Pathology	General Surgery
IM15.2	Enumerate describe and discuss the evaluation and steps involved in	DOAP session, Small group	Pathology	General Surgery

	stabilizing a patient who presents with acute volume loss and GI bleed	discussion, Lecture		
IM15.3	Describe and discuss the physiologic effects of acute blood and volume loss	Lecture, Small group discussion	Pathology, Physiology	General Surgery
IM15.4	Elicit document and present an appropriate history that identifies the route of bleeding, quantity, grade, volume loss, duration, etiology, comorbid illnesses and risk factors	Bedside clinic		General Surgery
IM15.5	Perform, demonstrate and document a physical examination based on the history that includes general examination, volume assessment and appropriate abdominal examination	Bedside clinic, Sklls lab		General Surgery
IM15.6	Distinguish between upper and lower gastrointestinal bleeding based on the clinical features	Lecture, Small group discussion		General Surgery
IM15.7	Demonstrate the correct technique to perform an anal and rectal examination in a mannequin or equivalent	DOAP session		General Surgery
IM15.8	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	Bedside clinic, Skills lab		General Surgery
IM15.9	Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, PT and PTT, stool examination, occult blood, liver function tests, H.pylori test.	Bedside clinic, DOAP session, Small group discussion	Pathology	General Surgery

IM15.10	Enumerate the indications for endoscopy, colonoscopy and other imaging procedures in the investigation of Upper GI bleeding	Lectures, Small group discussion		General Surgery
IM15.11	Develop, document and present a treatment plan that includes fluid resuscitation, blood and blood component transfusion, and specific therapy for arresting blood loss	Lecture, Small group discussion	Pathology	General Surgery
IM15.12	Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion	Lecture, Small group discussion	Pathology	General Surgery
IM15.13	Observe cross matching and blood / blood component transfusion	Bedside clinic	Pathology	General Surgery
IM15.14	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of pressors used in the treatment of Upper GI bleed	Lecture, Small group discussion	Pharmacology	General Surgery
IM15.15	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of acid peptic disease including Helicobacter pylori	Lecture, Small group discussion	Pharmacology, Microbiology	General Surgery
IM15.16	Enumerate the indications for endoscopic interventions and Surgery	Lecture, Small group discussion		General Surgery
IM15.17	Determine appropriate level of specialist consultation	Small group discussion		General Surgery
IM15.18	Counsel the family and patient in an empathetic non-judgmental manner on the diagnosis and therapeutic options	DOAP session		General Surgery
IM16.12	Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging and biopsy in the diagnosis of chronic diarrhea	Lectures, Small group discussion	Pathology	General Surgery

IM16.15	Distinguish, based on the clinical presentation, Crohn's disease from ulcerative colitis	Lecture, Small group discussion	Pathology	General Surgery
IM16.17	Describe and enumerate the indications for Surgery in inflammatory bowel disease	Lecture, Small group discussion		General Surgery
IM18.15	Enumerate the indications for Surgery in a hemorrhagic stroke	Lecture, Small group discussion		General Surgery
IM19.9	Enumerate the indications for use of Surgery and botulinum toxin in the treatment of movement disorders	Lecture, Small group discussion	Pharmacology	General Surgery
IM22.2	Describe the aetiology, clinical manifestations, diagnosis and clinical approach to primary hyperparathyroidism	Lecture, Small group discussion	Pathology	General Surgery
IM24.11	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery	Lecture, Small group discussion		Anesthesiology, General Surgery
OBG				
OG26.2	Describe the causes, prevention, clinical features, principles of management of genital injuries and fistulae	Lecture, Small group discussion		General Surgery
OG33.2	Describe the principles of management including Surgery and radiotherapy of benign, pre-malignant (CIN) and malignant Lesions of the Cervix	Lecture, Small group discussion, Bedside clinics		General Surgery
PAEDIATRICS				
PE21.8	Elicit, document and present a history pertaining to diseases of the Genitourinary tract00	Bedside clinics, Skills lab		General Surgery
PE21.14	Recognize common surgical conditions of the abdomen and	Bed side clinics, Skills lab		General Surgery

	genitourinary system and enumerate the indications for referral including acute and subacute intestinal obstruction, appendicitis pancreatitis perforation intussusception, Phimosis, undescended testis, Chordee, hypospadiasis,Torsion testis, hernia Hydrocele, Vulval Synechiae			
ORTHOPAEDICS				
OR1.1	Describe and discuss the principles of pre-hospital care and casuality management of a trauma victim including principles of triage	Lecture with video, Small group discussion		General Surgery - Anaesthesiology
OR1.2	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock	Lecture		General Surgery
OR1.3	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries	Lecture, Small group discussion		General Surgery
OR1.4	Describe and discuss the principles of management of soft tissue injuries	Lecture, Small group discussion		General Surgery
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 Skeletal Tuberculosis	Lecture, Small group discussion, Video assisted lecture	Pathology, Microbiology	General surgery

OR3.3	Participate as a member in team for procedures like drainage of abscess, sequestrectomy/ saucerisation and arthrotomy	DOAP session, Video demonstration		General Surgery
OR4.1	Describe and discuss the clinical features, Investigation and principles of management of Tuberculosis affecting major joints (Hip, Knee) including cold abcess and caries spine	Lecture,Small group discussion, Case discussion	Pathology	General surgery
OR10.1	Describe and discuss the aetiopathogenesis, clinical features, Investigations and principles of management of benign and malignant bone tumours and pathological fractures	Lecture, Small group discussion, Video assisted interactive lecture	Pathology	General surgery, Radiotherapy
OR11.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of peripheral nerve injuries in diseases like foot drop, wrist drop, claw hand, palsies of Radial, Ulnar, Median, Lateral Popliteal and Sciatic Nerves	Lecture, Small Group discussion, Case discussion	Human Anatomy	General Medicine, General surgery
PM & R				
PM5.1	Enumerate the indications and describe the principles of amputation	Lecture, Small group discussion		Orthopedics, General Surgery
PM7.8	Enumerate the causes of, describe, classify Pressure sores, prevention, and treatment.	Lecture, Small group discussion		General Surgery
PM7.9	Enumerate the indications of debridement, and Split thickness skin grafting.	Lecture, Small group discussion		General Surgery
PM8.1	Describe the clinical features, evaluation, diagnosis and management of disability following traumatic brain injury	Lecture, Small group discussion		General Medicine,

				Orthopedics, General Surgery
RADIOTHERAPY				
RT 1.1	Describe and discuss definition of radiation, mechanism of action of radiation, types of radiation	Lecture		General Surgery Anaesthesiology
RT 1.3	Enumerate, describe and discuss and classify staging of cancer (AJCC, FIGO etc.)	Lecture	Pathology	General Surgery, General Medicine
RT 4.5	Describe and discuss role of radiation in management of common malignancies in India (region specific)	Lecture, Bed side clinic	Pathology	General Surgery, Obstetrics & Gynaecology
RT4 .6	Describe and discuss radiotherapy for benign disease	Lecture	Pathology	General Surgery, Obstetrics & Gynaecology
RT 4.7	Counsel patients regarding acute and late effects of radiation and supportive care	Bedside clinic, Group discussion	Pathology	General Surgery, Obstetrics & Gynaecology
RT 4.8	Describe oncological emergencies and palliative care	Lecture, Group discussion		General Surgery, Obstetrics & Gynaecology
RT 5.1	Describe and discuss cancer prevention, screening, vaccination, cancer registry	Group discussion	Pathology	General Surgery, Obstetrics & Gynaecology

7. Recommended Books

a. Text books

Latest editions of the following books are advised

- Bailey & Love's · Short Practice of Surgery
- Sabiston Textbook of Surgery: The Biological Basis of Modern Surgical Practice
- Manipal Manual of Surgery: Dr. K. Rajagopal Shenoy
- SRB's Manual of Surgery: Dr. Sri Ram Bhat
- A Manual on Clinical Surgery: S. Das

b. Reference books

Latest editions of the following books are advised

- Schwartz's Principles of Surgery
- Rutherford's Vascular Surgery and Endovascular Therapy
- Shackelford's Surgery of the Alimentary Tract
- Blumgart's Surgery of the Liver, Biliary Tract and Pancreas
- Stell & Maran's Textbook of Head and Neck Surgery and Oncology
- Browse's Introduction to The Symptoms and Signs of Surgical Disease
- Hamilton Bailey's Emergency Surgery
- Maingot's Abdominal Operations

c. **Journals**

- **Annals of surgery** (https://journals.lww.com/annalsofsurgery)
- **BMJ Surgery, Interventions, & Health Technologies** (https://sit.bmj.com)

END

OBSTETRICS & GYNAECOLOGY

1. GOAL

- 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 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 labor, 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 in Obstetrics and Gynaecology, and to patients in Obstetric shock.
- Commitment to advancement of quality and patient safety in surgical practice.

b. Skills

- 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 gynecological examination in a non-pregnant woman.
- Ability to write a detailed and accurate case sheet (Case record).

c. Attitude & 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.

d. 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

THEORY	Teaching-Learning Method	No. of Hours
A	Large Group Teaching (LGT)	**70**
B	Small Group Teaching (SGT)	**125**
C	Self-Directed Learning (SDL)	**15**
	Total	**210**

PRACTICAL	Teaching-Learning Method	No. of Weeks
A	Bedside Clinics	**8+4**
	Total	**12**

OTHERS	Teaching-Learning Method	No. of Hours
A	AETCOM	7
B	Pandemic Module	6
C	Skill Lab	12
	Total	25

4. COURSE CONTENT

a. Theory

i. Large Group Teaching (LGT)

Large Group Teaching (LGT) Theory Classes			
Sl. No	**Topic: Competency (Number & Details)**		**No. of Hours**
1	OG5.1	Describe, discuss and identify pre-existing medical disorders and discuss their management; discuss evidence –based intra-partum care.	1
2	OG9.1	Classify, define and discuss the aetiology and management of abortions including threatened, incomplete, inevitable, missed and septic abortion.	2
3	OG11.1	Describe the etipathology, clinical features, diagnosis and investigations , complications , principles of management of multiple pregnancies	2
4	12.1	Define, classify and describe the aetiology and pathophysiology, early detection, investigations; principles of management of hypertensive disorders of pregnancy and eclampsia, complications of eclampsia.	2
5	OG12.3	Define, classify and describe the aetiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labour, and complications of diabetes in pregnancy	2
6	OG12.4	Define, classify and describe the aetiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labour, and complications of heart diseases in pregnancy	2
7	12.6	Describe the clinical features, detection, effect of pregnancy on the disease and impact of the liver disease on pregnancy complications and management of liver disease in pregnancy	1

8	OG12.8	Describe the mechanism, prophylaxis, foetal complications, diagnosis and management of isoimmunisation in pregnancy	1
9	OG13.2	Define, describe the causes, pathophysiology, diagnosis, investigations and management of preterm labour, PROM and post-dated pregnancy	2
10	OG14.2	Discuss the mechanism of normal labour, Define and describe obstructed labour, its clinical features; prevention; and management	2
11	OG14.3	Describe and discuss rupture uterus, causes, diagnosis and management.	1
12	OG14.4	Describe and discuss the classification; diagnosis and management of abnormal labour	1
13	OG15.1	Enumerate and describe the indications and steps of common obstetric procedures, technique and complications: Episiotomy, vacuum extraction; low forceps; Caesarean section, assisted breech delivery; external cephalic version; cervical cerclage	3
14	OG16.3	Describe and discuss causes, clinical features, diagnosis, investigations; monitoring of foetal well-being, including ultrasound/ Doppler; principles of management; prevention and counselling in FGR	1
15	OG18.1	Describe and discuss the assessment of maturity of the new born, diagnosis of birth asphyxia, principles of resuscitation, common problems.	1
16	OG20.1	Enumerate the indications and describe and discuss the legal aspects, indications, methods for first and second trimester MTP; complications and management of complications of Medical Termination of Pregnancy	2
17	OG20.3	Discuss Pre-conception and Pre Natal Diagnostic Techniques (PC& PNDT) Act 1994 & its amendments	1
18	OG21.1	Describe and discuss the temporary and permanent methods of contraception, indications, technique and complications; selection of	3

		patients, side effects and failure rate including OCPs, male contraception, emergency contraception and IUCD	
19	OG23.1	Describe and discuss the physiology of puberty, features of abnormal puberty, common problems and their management	2
20	OG24.1	Define, classify and discuss abnormal uterine bleeding, its aetiology, clinical features, investigations, diagnosis and management	2
21 22	OG25.1 OG 26.1	Describe and discuss the causes of primary and secondary amenorrhea, its investigation and the principles of management. Describe and discuss the aetio-pathogenesis, clinical feature, investigation and implications on health and fertility and management of endometriosis and adenomyosis.	2
23	OG26.2	Describe the causes, prevention, clinical features, principles of management of genital injuries and fistulae	2
24	OG27.1	Describe and discuss the aetiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of sexually transmitted infections	1
25	OG27.2	Describe and discuss the aetiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of genital tuberculosis	1
26	OG27.3	Describe and discuss the aetiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of HIV	1
27	OG27.4	Describe and discuss the aetiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of Pelvic Inflammatory Disease	2
28	OG28.1	Describe and discuss the common causes, pathogenesis, clinical features, differential diagnosis; investigations; principles of	1

		management of infertility – methods of tubal patency, ovulation induction, assisted reproductive techniques	
29	OG28.2	Enumerate the assessment and restoration of tubal latency	1
30	OG28.3	Describe the principles of ovulation induction	1
31	OG28.4	Enumerate the various Assisted Reproduction Techniques	1
32	OG29.1	Describe and discuss the aetiology; pathology; clinical features; differential diagnosis; investigations; principles of management, complications of fibroid uterus	2
33	OG30.1	Describe and discuss the etiopathogenesis; clinical features; differential diagnosis; investigations; management, complications of PCOS	2
34	OG30.2	Enumerate the causes and describe the investigations and management of hyperandrogenism	1
36	OG31.1	Describe and discuss the aetiology, classification, clinical features, diagnosis, investigations, principles of management and preventive aspects of prolapse of uterus	2
37	OG32.1	Describe and discuss the physiology of menopause, symptoms, prevention, management and the role of hormone replacement therapy.	2
38	OG32.2	Enumerate the causes of postmenopausal bleeding and describe its management	2
39	OG33.1	Classify, describe and discuss the aetiology, pathology, clinical features, differential diagnosis, investigation and staging of Carcinoma Cervix	2
40	OG33.2	Describe the principles of management including surgery and radiotherapy of Benign, Pre-malignant (CIN) and Malignant Lesions of the Cervix	1
41	OG34.1	Describe and discuss aetiology, pathology, staging clinical features, differential diagnosis, investigations, staging	3

		laparotomy and principles of management of endometrial cancer	
42	OG34.2	Describe and discuss the aetiology, pathology, classification, staging of ovarian cancer, clinical features, differential diagnosis, investigations, principal of management including staging laparotomy	3
43	OG34.3	Describe and discuss the aetiology, pathology, classification, staging, clinical features, differential diagnosis, investigations and management of gestational trophoblastic disease	3

ii. Small Group Teaching (SGT)

Small Group Teaching (SGT) Tutorials / Seminar / Group discussions etc.			
Sl. No	**Topic: Competency (Number & Details)**		**No. of Hours**
1	OG6.1	Describe and discuss the clinical features of pregnancy , derive and discuss its differential diagnosis ,elaborate the principles underlying and interpret pregnancy tests	2
2	OG8.4	Describe and demonstrate clinical monitoring of maternal and foetal well-being, interpret the findings of a given CTG record.	2
3	OG8.5	Describe and demonstrate pelvic assessment in a model, describe the timing of pelvic assessment and the steps.	2
4	OG8.8	Enumerate the indications and describe the investigations including the use of ultrasound in the initial assessment and monitoring in pregnancy	2
5	OG9.1	Classify, define and discuss the aetiology and management of abortions including threatened, incomplete, inevitable, missed and septic abortion	2
6	OG9.2	Complications in early pregnancy: describe the steps in MTP evacuation	2
7	OG9.3	Discuss the aetiology, clinical features, differential diagnosis of acute abdomen in early pregnancy (with a focus on ectopic pregnancy) and enumerate the principles of medical and surgical management	2
8	OG13.1	Enumerate and discuss the physiology of normal labour, mechanism of labour in occiput-anterior presentation; monitoring of labour including partogram: conduct of labour, pain relief, principles of induction and acceleration of labour; management of third stage of labour	4
9	OG14.1	Enumerate and discuss the diameters of maternal pelvis and types	2
10	OG16.1	Enumerate and discuss causes, prevention, diagnosis, management, appropriate use of blood and blood products in postpartum haemorrhage	2
11	OG16.2	Describe and discuss uterine inversion – causes, prevention, diagnosis and management.	2

12	OG17.3	Describe and discuss the clinical features, diagnosis and management of mastitis and breast abscess	2
13	OG18.3	Describe and discuss the diagnosis of birth asphyxia	2
14	OG18.4	Describe the principles of resuscitation of the new-born and enumerate the common problems encountered	2
15	OG19.1	Describe and discuss the physiology of puerperium, its complications, diagnosis and management; counselling for contraception, puerperal sterilization	2
16	OG20.1	Enumerate the indications and describe and discuss the legal aspects, indications, methods for first and second trimester MTP; complications and management of complications of Medical Termination of Pregnancy	2
17	OG20.3	Discuss Pre-conception and Pre Natal Diagnostic Techniques (PC&PNDT) Act 1994 & its amendments	2
18	OG11.1	Describe the etiopathology, clinical features, diagnosis and investigations, complications and management of multiple pregnancies	2
19	12.1	Define, classify and describe the aetiology and pathophysiology, early detection, investigations; principles of management of hypertensive disorders of pregnancy and eclampsia, complications of eclampsia.	4
		Assessment -MCQs	2
20	OG12.3	Define, classify and describe the aetiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labour, and complications of diabetes in pregnancy	4
21	OG12.4	Define, classify and describe the aetiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labour, and complications of heart diseases in pregnancy	4
22	OG12.6	Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of liver disease in pregnancy	2

23	OG13.2	Define, describe the causes, pathophysiology, diagnosis, investigations and management of preterm labour, PROM and post-dated pregnancy	4
24	OG14.2	Discuss the mechanism of normal labour, Define and describe obstructed labour, its clinical features; prevention; and management	4
25	OG14.3	Describe and discuss rupture uterus, causes, diagnosis and management.	2
26	OG14.4	Describe and discuss the classification; diagnosis; management of abnormal labour	2
27	OG15.1	Enumerate and describe the indications and steps of common obstetric procedures, technique and complications: Episiotomy, vacuum extraction; low forceps; Caesarean section, assisted breech delivery; external cephalic version; cervical cerclage	6
28	OG21.1	Describe and discuss the temporary and permanent methods of contraception, indications, technique and complications; selection of patients, side effects and failure rate including OCP s, male contraception, emergency contraception and IUCD	6
29	OG21.2	Describe & discuss PPIUCD programme	2
30	OG24.1	Define, classify and discuss abnormal uterine bleeding, its aetiology, clinical features, investigations, diagnosis and management	2
31	OG26.1	Describe and discuss the etiopathogenesis, clinical features; investigation and implications on health and fertility and management of endometriosis and adenomyosis	4
32	OG26.2	Describe the causes, prevention, clinical features, principles of management of genital injuries and fistulae	2
33	OG27.1	Describe and discuss the aetiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of sexually transmitted infections	2
34	OG27.2	Describe and discuss the aetiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of genital tuberculosis	2

35	OG27.3	Describe and discuss the aetiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of HIV	2
36	OG27.4	Describe and discuss the aetiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of Pelvic Inflammatory Disease	2
37	OG31.1	Describe and discuss the aetiology, classification, clinical features, diagnosis, investigations, principles of management and preventive aspects of prolapse of uterus	2
38	OG32.1	Describe and discuss the physiology of menopause, symptoms, prevention, management and the role of hormone replacement therapy.	2
39	OG32.2	Enumerate the causes of postmenopausal bleeding and describe its management	2
40	OG33.1	Classify, describe and discuss the aetiology, pathology, clinical features, differential diagnosis, investigations and staging of cervical cancer	2
41	OG33.2	Describe the principles of management including surgery and radiotherapy of Benign, Pre-malignant (CIN) and Malignant Lesions of the Cervix	4
42	OG33.4	Enumerate the methods to prevent cancer of cervix including visual inspection with acetic acid (VIA), visual inspection of cervix with Lugol's iodine (VILI), pap smear and colposcopy	2
43	OG34.1	Describe and discuss aetiology, pathology, staging clinical features, differential diagnosis, investigations, staging laparotomy and principles of management of endometrial cancer	4
44	OG34.2	Describe and discuss the aetiology, pathology, classification, staging of ovarian cancer, clinical features, differential diagnosis, investigations, principal of management including staging laparotomy	4
45	OG34.3	Describe and discuss the aetiology, pathology, classification, staging, clinical features, differential diagnosis, investigations and management of gestational trophoblastic disease	4
		Assessment –MCQs	2

b. Self Directed Learning (SDL)

Self Directed Learning (SDL)		
Sl. No	**Topic: Competency (Number & Details)**	**No. of Hours**
OG4.1	Development of the foetus and the placenta: Define teratogenicity, discuss the significance of critical period of embryogenesis. Enlist 10 common teratogenic agents and discuss the categorisation of drugs in pregnancy by FDA.	3 Hours
OG16.1	Enumerate and discuss causes, prevention, diagnosis, management, appropriate use of blood and blood products in postpartum haemorrhage	3 Hours
OG30.1	Describe and discuss the etiopathogenesis; clinical features; differential diagnosis; investigations; management, complications of PCOS	3 Hours
OG33.4	Enumerate the methods to prevent cancer of cervix including visual inspection with acetic acid (VIA), visual inspection of cervix with Lugol's iodine (VILI), pap smear and colposcopy	3 Hours
OG27-1	Describe and discuss the aetiology, pathology, clinical features, investigations, management and long term implications of sexually transmitted infections.	3 Hours

5. Practical

i. Bedside Clinics

Bedside Clinics			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1	OG 10.1 Define, classify & describe the aetiology, pathogenesis, clinical features, ultrasonography, differential diagnosis and management of antepartum haemorrhage	wards	3 hours

2	OG 10.2 Define, classify and describe the aetiology 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, , counselling for contraception, puerperal sterilization	wards	1 hour
5	OG 24.1 Define, classify and discuss abnormal uterine bleeding, its aetiology, clinical features, investigations, diagnosis and management.	wards	3 hours
6	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.	wards	3 hours
7	OG 29.1 Describe and discuss the aetiology, clinical features; complications of fibroid uterus	wards	3 hours
8	OG 31.1 Describe and discuss the aetiology, classification, clinical diagnosis, investigations, principles of management and preventive aspects of prolapse of uterus	wards	3 hours
9	OG 34.1 Describe and discuss aetiology, pathology, staging clinical features , differential diagnosis investigations, staging laparotomy and principles of management of endometrial cancer	wards	3 hours
10	OG 34.2 Describe and discuss the aetiology, pathology, classification, staging of ovarian cancer, clinical features, differential diagnosis, investigations, principal of management including staging laparotomy.	wards	3 hours

11	OG 35.2, 35.3 Arrive at a logical provisional diagnosis after examination. Recognise situations, which call for urgent or early treatment at secondary and tertiary centres and make a prompt referral of patients after giving first aid or emergency treatment.	wards	3 hours
12	OG 8.4 Describe and demonstrate clinical monitoring of foetal and maternal well-being	Labour room	1 hour
13	OG 10.2 Enumerate the indications and describe the appropriate use of blood and blood products, their complications and management. Uses in PPH.	Labour room	1 hour
14	OG 13.1 Enumerate and discuss the physiology of normal labour, mechanism of labour in occiput anterior presentation, monitoring of labour including partogram, conduct of labour, pain relief, principles of Induction and acceleration of labour, management of third stage of labour	Labour room	2 hours
15	OG 13.2 Define, Describe the causes, diagnosis, investigations and management of preterm labour, PROM and post-dated pregnancy	Labour room	1 hour
16	OG 14.2 Discuss the mechanism of normal labour. Define and describe obstructed labour, its clinical features; prevention and management.	Labour room	2 hours
17	OG 14.4 Describe and discuss the classification, diagnosis and management of abnormal labour	Labour room	1 hour
18	OG 18.3 Describe and discuss the diagnosis of birth asphyxia	Labour room	1 hour
19	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.	Labour room	1 hour

20	OG 19.4 Enumerate the indications for ,Describe the steps in insertion and removal of an intrauterine device in simulated environment	OPD	2 hours
21	OG 8.8 Enumerate the indications and describe the investigations including the use of ultrasound in the initial assessment and monitoring in pregnancy.	OPD	1 hour
22	OG 21.1 Describe and discuss the temporary and permanent methods of contraception, techniques; selection of patients, including OC pills ,Emergency contraception and IUCD.	OPD	2 hours
23	OG 22.2 Describe and discuss the aetiology with special emphasis on candida, T vaginalis, bacterial vaginosis and syndromic management.	OPD	1 hour
24	OG 15.1 Enumerate and describe the indications and steps of common obstetric procedures, technique and complication;, caesarean section, assisted breech delivery, external cephalic version, cervical cerclage.	Operative theatre	3 hours
25	OG 18.3 Describe and discuss the diagnosis of birth asphyxia, describe the management.	Operative theatre	1 hour
26	OG 21.2 Describe and discuss PPIUCD programme.	Operative theatre	1 hour
27	OG 34.4 Operative Gynaecology: Understand and describe the technique and complications: Dilatation & Curettage (D &C) EA- ECC: Cervical biopsy: Abdominal hysterectomy: myomectomy: surgery for ovarian tumours; staging laparotomy; hysteroscopy; management of postoperative complications.	Operative theatre	3 hours
28	OG 19.3 Observe/assist in performance of tubal ligation.	Operative theatre	1 hour

ii. Clinical Clerkship / Evening Clinics

Clinical Clerkship / Evening Clinics			
Day	**Topic**	**Suggested TL Method**	**No. of Hours**
OPD	Document all the admissions in the designated unit.	Log book writing	1
Post OPD	Writing complete case records.	Log book	1
OT	Observe and document the steps of the Obstetric and Gynaecological procedures.	Log book	1
Post OT	Observe the postoperative management of major Obstetric and Gynaecological surgeries.	Log book	1
Ward Rounds	Discuss the case history and management of the patient in the allotted beds in the OBG wards.	Log book	1

iii. Skill Lab

Sl. No	Topic: Competency (Number & Details)	No. of Hours
1	OG 35.15 - Demonstrate the correct technique to insert and remove an IUD in a simulated/ supervised environment	2
2	OG 35.17 - Demonstrate the correct technique of urinary catheterisation in a simulated/ supervised environment	2
3	OG 33.3 - Describe and demonstrate the screening for cervical cancer in a simulated environment	2
4	OG 36.3- Demonstrate the correct technique of punch biopsy of uterus in a simulated/ supervised environment	2
5	OG 8.5- Describe and demonstrate pelvic assessment in a model	2
6.	OG 14.4- Describe and discuss the classification; diagnosis; management of abnormal labour	2

iv. Certifiable Skills

Sl. No	Skills that require certification	Criteria for certification	No. of Attempts
1	OG 8.5-- Describe and demonstrate pelvic assessment in a model	ME/DME	2
2	OG 13.2 --- Enumerate and discuss the physiology of normal labour, mechanism of labour in occiput-anterior presentation; monitoring of labour including partogram; conduct of labour, pain relief; principles of induction and acceleration of labour; management of third stage of labour.	ME/DME.	2
3	OG 33.3 --Describe and demonstrate the screening for cervical cancer in a simulated environment OG 35.12--Obtain a PAP smear in a stimulated environment	ME/DME	2

b. AETCOM Module

AETCOM Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1	SL NO 4.2 Case studies in medico-legal and ethical situations Medical termination of pregnancy	Group discussion SDL	5 hours/2 hours
2	4.8 Dealing with death As per module (alternating with General Surgery on yearly basis)	Group discussion SDL	5 hours/2 hours

c. Pandemic Module

Pandemic Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1	Not Applicable		
2			
3			
4			
5			

6. SCHEME OF EXAMINATION

a. Eligibility Criteria

- Students must secure at least 50% 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 Summative / University examination.
- Student should have a minimum of 75% attendance in Theory and 80% in Practical classes to be eligible to appear for Summative / University examination.
- Student must have completed the required certifiable competencies and completed the log book

b. Internal Assessment

i. Theory

- Multiple (a minimum of two) Internal Assessments (IA) will be conducted.
- The last IA will be conducted as Preliminary examination, which will mirror the university exams in marks and pattern.
- The final IA marks will be derived based on the table given below.
- The blueprint of all the IAs is also given in the table below.

Table 1: Theory Internal Assessment

DEPARTMENT OF OBG Integrated phase-wise Internal Assessment								
THEORY		**Phase 2**		**Phase 3-1**		**Phase 3-2**		**Final Total**
		IA-1	**IA-2**	**IA-3**	**IA-4**	**IA-5**	**IA-6**	
Written	**Theory**	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	
Total		**50**	**50**	**50**	**50**	**80**	**120**	**400**

FINAL THEORY IA MARKS = 200 (final total divided by 2)

* 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

Table 2: Blueprint of IA (Theory)

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

6.1.4. Practical

- Each clinical posting will include and End of Posting (EoP) test.
- The marks allotted for each EoP is tabulated below.
- The preliminary examination will include a practical examination which will mirror the university examination in marks and pattern.

Table 3: Practical Internal Assessment

DEPARTMENT OF OBG Integrated phase-wise Internal Assessment						
PRACTICAL		Phase 2	Phase 3-1	Phase 3-2		Total
		4 weeks	4 weeks	8 weeks	4 weeks	
		EOP-1	EOP-2	EOP-3	EOP-4	
EOP	Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)	30	30	70	70	
	Viva-voce/ AETCOM	10	10	10	10	
Others	Formative assessment including Clinical-Clerkship	05	05	10	10	
	Logbook/ Record book	05	05	10	10	
Total		50	50	100	100	300

FINAL EOP IA MARKS# = 200 (final total multiplied by 0.66 and rounding it)

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 Practical Examinations will be conducted for 200 marks & will mirror Summative / University Practical Examinations

$$\text{Final practical IA marks (200)} = \frac{\text{Final EOP marks (200)} + \text{Preliminary Exam (200)}}{2}$$

6.2. Formative (Day to Day) Assessment

- Day to Day assessment will be performed and it will be added to the iA marks of theory as well as practical (as in tables above)
- Formative (Day to Day) assessment will be calculated based on attendance, maintenance of record books, log books, journals, case sheets etc
- Any assignments, presentations, seminars or other academic activity of note shall also reflect in the formative assessment

6.2.1. Remedial Assessment

- Remedial Examinations will be conducted as per the policy of Shri Dharmasthala Manjunatheshwara University and will be based on NMC guidelines.

c. Summative Assessment

i. Pass Criteria

- A candidate shall obtain 50% marks in university conducted examination separately in Theory and Practical (practical includes: practical/ clinical and viva voce) in order to be declared as passed in that subject.
- In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass in the said subject.

ii. Theory Summative Examination Format

- Third Professional Part II - (Final Professional) examination shall be at the end of training (14 months including 2 months of electives) in the subjects of General Medicine, General Surgery, Obstetrics & Gynecology and Pediatrics.
- The disciplines of Orthopedics, Anesthesiology, Dentistry and Radio diagnosis will constitute 25% of the total theory marks incorporated as a separate section in paper II of General Surgery.
- The disciplines of Psychiatry and Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis will constitute 25% of the total theory marks in General Medicine incorporated as a separate section in paper II of General Medicine.

iii. Blueprint of Theory Summative Examination

Table 4: Blueprint of theory summative examination

Blueprint of Theory Summative Examination	**Paper 1**	**Paper 2**
Multiple Choice Questions **(MCQ)** **(1 mark each)**	20	20
Structured Long Essay Questions **(SLEQ)** **(10 marks each)**	02	02
Short Essay Questions **(SEQ)** **(5 marks each)**	08	08
Short Answer Questions **(SAQ)** **(2 marks each)**	10	10
TOTAL	**100**	**100**
AETCOM should have a weightage of 5 marks in each paper		

Table 5: Blueprint (Topic based) of theory summative examination

Blueprint of Theory Summative Examination (Topic based weightage)						
Topic / System Paper 1	**Total Weightage**	**MCQ**	**SLEQ**	**SEQ**	**SAQ**	**Total Marks**
1. Development of fetus and placenta	5 %	1			1	3
2. Preconception counseling	5 %	1			1	3
3. Antenatal care	10 %	1		1		6
4. Complications in early pregnancy and antepartum hemorrhage	10 %	1		1	1	8
5. Multiple pregnancy	5 %	1		1	1	8
6. Medical disorders in pregnancy	20 %	5	1	1	1	22
7. Labor	20 %	5	1	1	2	24
8. Lactation	5 %	1		1		6
9. Medical termination of pregnancy	10 %	2		1	1	9
10. Contraception	10 %	2		1	2	11
Total	100	20	20	40	20	100
Paper 2						
1. Normal and abnormal puberty	5 %				2	4
2. Abnormal uterine bleeding	10 %	1	1			11
3. Amenorrhea	5 %	1			2	5
4. Genital tract injuries and fistulae	5 %				1	2
5. Genital infections	10 %	1		1		6
6. Infertility	10 %	2			2	6

7. Uterine fibroids	5 %	1		1	1	8
8. PCOS and hirsuitism	5 %	1		1		6
9. Uterine prolapse	10 %	2		1		7
10. Menopause	5 %	1		1		6
11. Benign, pre-malignant and malignant lesions of the cervix	15 %	5		2	1	17
12. Benign and malignant diseases of the uterus and ovaries	15 %	5	1	1	1	22
7. AETCOM (5 marks per paper)						
Total	100	20	20	40	20	100

i. Practical Summative Examination Format

Practical Summative Examination Format		**Number of cases**	**Marks allotted for each case**	**Total (Marks)**
Clinical Cases	**Long cases**	**2 cases**	**50 marks each**	**100**
	Short cases	**nil**	**nil**	
	Case scenarios			
Ward Cases		**nil**	**nil**	
Spotters		**5 stations**	**10 marks each**	**50**
Viva-voce		**5 stations**	**10 marks each**	**50**
Others				
TOTAL				**200**

8. INTEGRATION (HORIZONTAL & VERTICAL)

INTEGRATION					
Sl. no	**Competency Number**	**Competency Detail**	**Nesting / Sharing / Aligning / Correlation**	**Integration with departments**	
				Horizontal	**Vertical**
1.	OG 12.3	Define, classify and describe the aetiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labour, and complications of Diabetes in pregnancy	Aligning /correlation	Medicine	
2.	OG 12.4	Define, classify and describe the aetiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labour, and complications of heart diseases in pregnancy	Aligning /correlation	Medicine	
4.	OG 18.1.2,3,4	Demonstrate the steps of neonatal resuscitation in a simulated environment Describe and discuss the diagnosis of birth asphyxia Describe the principles of resuscitation of the new-born and enumerate the common problems encountered	Aligning /correlation	Paediatrics	

6.	OG 12.2	Define, classify and describe the aetiology, and pathophysiology, diagnosis, investigations, adverse effect on mother and foetus, management during pregnancy and labour and complications of anaemia in pregnancy	Aligning /correlation		Pathology
7.	OG 22.2	Describe and discuss the aetiology with special emphasis on Candida, T. vaginalis, bacterial vaginosis, characteristics, clinical diagnosis, investigations, genital hygiene, management of common causes and the syndromic management	Aligning /correlation		Microbiology

9. RECOMMENDED BOOKS

9.1 Text books

1. Mudaliar & Menon, Clinical Obstetrics, Sarala Gopalan, Vanita Jain, 12th edition, University Press.
2. Dutta D.C., Text book of Obstetrics 9th edition, Jaypee Publication
3. Shaw's A Text book of Gynaecology, Padubidri VG, Shirish N Daftary, 17th edition, Elsevier publication
4. Dutta DC, Text book of Gynaecology, 8th edition

9.2 Reference books

1. Williams Obstetrics — Cunningham, Bloom, Sponge, et al 25th edition, Mc Craw Hill education Publication.
2. Fernando Arias Amarnath Bhinde, Savaratanum Arulkumaran et al 5th edition, Elsevier publication.
3. Munrokerr's operative obstetrics, Thomas F, Baskett Andrew, Savratanum Arulkumaran, 12th edition, Bailliere Tindall, London.
4. Jeffcoate's Principles of Gynaecology, Pratapkumar, Narendra Malhotra, 9th edition, Jaypee publication.

5. Williams Gynaecology Hoffman, John, Joseph et al, 3rd edition, Mc Craw Hill education Publication.
6. Shaw's operative Gynaecology, Christopher Hudson, Marcus Setchell, 7th edition, Elsevier publication.
7. Speroff's Clinical Gynecologic Endocrinology and Infertility, 9th Edition, South Asian Edition.

9.3 **Journals**

1. The Journal of Obstetrics and Gynaecology of India
2. British Journal of Obstetrics and Gynaecology (BJOG)
3. American Journal of Obstetrics and Gynecology (AJOG)

10. 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.

11. OBJECTIVES

a. Knowledge

- At the end of the course, the student shall be able to:
- Explain the principles of optimal growth, development and nutrition of child, and adolescents and identify deviation from normal.
- Enumerate the principle of optimal neonatal care.
- Describe and analyze the emergency and routine ambulatory and first level referral unit care for neonate, infants, children and adolescents.
- Enumerate the principles of health promotion and prevention of disease in children
- Describe the various causes, types and management of children with special needs.
- Describe the national programs related to child health including integrated management of neonatal & childhood illness IMNCI

b. Skills

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

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

c. Attitude & 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.

d. 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.

12. TEACHING HOURS

THEORY	Teaching-Learning Method	No. of Hours
A	Large Group Teaching (LGT)	**20**
B	Small Group Teaching (SGT)	**35**
C	Self Directed Learning (SDL)	**10**
	Total	**65**

PRACTICAL	Teaching-Learning Method	No. of Weeks
A	Bedside Clinics	**4**
	Total	**4**

OTHERS	Teaching-Learning Method	No. of Hours
A	AETCOM	
B	Pandemic Module	
C	Skill Lab	
	Total	

13. <u>COURSE CONTENT</u>

a. Theory

i. Large Group Teaching (LGT)

Large Group Teaching (LGT) Theory Classes					
Sl. No.	**PE**	**Topic/ System : (With Competency Number) core/ non-core competency**	**Core**	**Large group teaching domain K LEVEL K/KH,**	**No. of Hours**
		Genito-Urinary system			
1	PE 21.1	**Enumerate the etiopathogenesis, clinical features, complications and management of Urinary Tract infection (UTI) in children**			
	21.1.1	Define UTI as per standard criteria.	Y	K KH	1
	21.1.2	Enumerate the organisms causing UTI in children of different ages.	y	K KH	
	21.1.3	Describe the clinical features of simple & complicated UTI.	y	K KH	
	21.1.4	Outline diagnostic workup for children with UTI at different ages.	y	K KH	
	21.1.5	Describe the treatment including the choice of antibiotics and duration of antibiotic therapy for treating simple & complicated UTI.	y	K KH	
	21.1.6	Enumerate the complications of UTI children.	y	K KH	

	PE 21.2	Enumerate the etiopathogenesis, clinical features, complications and management of acute post- streptococcal Glomerular Nephritis in children	Y	K KH	2
	PE 21.4	Discuss the approach and referral criteria to a child with hematuria	Y	K KH	
	PE 21.3	Discuss the approach and referral criteria to a child with Proteinuria			3
	21.3.1	List causes of glomerular & non glomerular Proteinuria.	Y	K KH	
	21.3.2	Define nephrotic syndrome.	Y	K KH	
	21.3.3	Enumerate causes of nephrotic syndrome.	Y	K KH	
	21.3.4	Outline the approach to a child with first episode of nephrotic syndrome.	Y	K KH	
	21.3.5	List indications of kidney biopsy in nephrotic syndrome.	Y	K KH	
	21.3.6	Outline the management of initial episode nephrotic syndrome and subsequent relapse.	Y	K KH	
	21.3.7	List the Criteria for referral of a child with proteinuria.	Y	K KH	
	PE 21.5	Enumerate the etiopathogenesis, clinical features, complications and management of Acute Renal Failure in children	Y	K KH	4

2		**Cardiovascular system- Heart Diseases**			
	PE 23.1	Discuss the Hemodynamic changes, clinical presentation, complications and management of acyanotic Heart Diseases -VSD, ASD and PDA	Y	K KH	5
	PE 23.2	Discuss the Hemodynamic changes, clinical presentation, complications and management of Cyanotic Heart Diseases – Fallot Physiology	Y	K KH	6
	PE 23.3	Discuss the etiopathogenesis, clinical presentation and management of cardiac failure in infant and children	Y	K KH	7
	PE 23.4	Discuss the etiopathogenesis, clinical presentation and management of Acute Rheumatic Fever in children	Y	K KH	8
3		**Acute and chronic liver disorders**			
	PE 26.2	Discuss the etiopathogenesis, clinical features and management of Fulminant Hepatic Failure in children	Y	K K	9
	PE 26.4	Discuss the etiopathogenesis, clinical features and management of Portal Hypertension in children	Y	K K	10
	PE 26.11	Enumerate the indications for Upper GI endoscopy	Y	K KH	

4		**Pediatric Emergencies –**			
	PE 27.5	Describe the etiopathogenesis, clinical approach and management of Shock in children	Y	K KH	11
	PE 27.6	Describe the etiopathogenesis, clinical approach and management of Status epilepticus	Y	K KH	12

	PE 27.7	Describe the etiopathogenesis, clinical approach and management of an unconscious child	Y	K KH	13
5		**Respiratory system**			
	PE28. 5-7.	Discuss the etiopathogenesis, clinical features and management of Epiglottitis, of Acute laryngotracheobronchitis and Stridor in children	Y	K KH	14
	PE 28.18	Describe the etiopathogenesis, diagnosis, clinical features, management and prevention of lower respiratory infections including bronchiolitis, wheeze associated LRTI Pneumonia and empyema	Y	K KH	15
	PE 28.19	Describe the etiopathogenesis, diagnosis, clinical features, management and prevention of asthma in children	Y	K KH	16
6		**Anemia and other Hemato-oncologic disorders**			
		Discuss the etiopathogenesis, clinical features and			

	PE 29.4	management of Hemolytic anemia, Thalassemia Major, Sickle cell anemia, Hereditary spherocytosis, Auto-immune hemolytic anemia and hemolytic uremic syndrome.	Y	K KH	19
	PE 29.6	Discuss the cause of thrombocytopenia in children: describe the clinical features and management of idiopathic Thrombocytopenic Purpura.	Y	K KH	18
	PE 29.2	Discuss the etiopathogenesis, clinical features and management of iron deficiency anemia.	Y	K KH	19
7		**Central Nervous system**			
	PE 30.15	Discuss the etiopathogenesis, clinical features and management of Ataxia in children	Y	K KH	20

4.1.2 Small Group Teaching ; (SGT)

Small Group Teaching (SGT) Tutorials / Seminar / Group discussions etc.					
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**
1		**Adolescent Health & common problems related to Adolescent Health**			
	6.1.1	Define adolescence.	Y	K K	1
	6.1.2	Enumerate the stages of	Y	K KH	

		adolescence.			
	PE 6.2.	Describe the physical, physiological and psychological changes during adolescence (Puberty)	Y	K KH	
	6.2.1	Describe the physical changes during adolescence.	Y	K KH	
	6.2.2	Describe the physiological changes during adolescence.	Y	K KH	
	6.2.3	Describe the psychological changes during adolescence.	Y	K KH	
	PE6.3	Discuss the general health problems during adolescence	Y	K KH	2
	6.3.1	Enumerate the general health problems of adolescence	Y	K KH	
	6.3.2	Describe the general health problems of adolescence	Y	K KH	
	PE6.5	Explain the Adolescent Nutrition and common nutritional problem	Y	KH	3
	6.5.1	Describe the nutritional requirements of adolescents.	Y	K KH	
	6.5.2	Discuss the nutritional problems in adolescents.	Y	K KH	
	6.6	Describe the common adolescent eating problems like Anorexia nervosa and Bulimia nervosa.	N	K KH	
	6.7.1	Describe the common mental health problems during adolescence.	Y	K KH	

2		**Toxic elements and free radicals and oxygen toxicity**			
	PE14.1	Discuss the risk factors, clinical features, diagnosis and management of Lead Poisoning	N	K KH	4
	PE14.2	Discuss the risk factors, clinical features, diagnosis and management of Kerosene ingestion	N	K KH	
	PE14.3	Discuss the risk factors, clinical features, diagnosis and management of Organophosphorous poisoning	N	K KH	5
	PE14.4	Discuss the risk factors, clinical features, diagnosis and management of paracetamol poisoning	N	K KH	6
	PE14.5	Discuss the risk factors, clinical features, diagnosis and management of Oxygen toxicity	N	K KH	
3		**Fluid and electrolyte balance**			
	PE15.1	Discuss the fluid and electrolyte requirement in health and disease	Y	K KH	7
	15.1.1	State the fluid requirement of a healthy neonate.	Y	K K	
	15.1.2	Describe the fluid and electrolyte requirements of healthy children of different ages.	Y	K K	
	15.1.3	Describe the fluid requirements in common diseases of children.	Y	K K	

		Discuss the clinical features and complications of fluid and electrolyte imbalance and outline the management			
	15.2.1	Define hyponatremia and hypernatremia.	Y	K K	8
	15.2.5	Enumerate the symptoms and signs of hyponatremia and Hypernatremia.	Y	K KH	
	15.2.7	Outline the management of a child with hyponatremia / hypernatremia.	Y	K KH	
	15.2.2	Define hypokalemia and hyperkalemia.	Y	K K	
	15.2.8	Outline the management of a child with hypokalemia or Hyperkalemia.	Y	K SH	
	15.2.3	Describe the clinical features of a child who has dehydration or fluid overload.	Y	K KH	9
	15.2.4	Outline the management of a child who has dehydration or fluid overload.	Y	K KH	
4		**Genito-Urinary system**			
	PE 21.6	Enumerate the etiopathogenesis, clinical features, complications and management of chronic kidney disease in children.	Y	K KH	10
	PE 21.17	Describe the etiopathogenesis, grading, clinical features and management of hypertension in children	Y	K KH	11

5		**Rheumatologic problem**			
	PE 22.1	Enumerate the common Rheumatological problems in children. Discuss the clinical approach to recognition and referral of a child with Rheumatological problem	Y	K KH	12
	PE 22.3.1	Describe the diagnosis and management of common vasculitic disorders including Henoch Schonlein Purpura, Kawasaki Disease.	N	K KH	13
	PE 22.3.2	Describe the diagnosis and management oF disorders including SLE, JIA	N	K KH	14
6		**Cardiovascular system- Heart Diseases**			
	PE 23.6	Discuss the etiopathogenesis, clinical features and management of Infective endocarditis in children	Y	K KH	15
7		**Acute and chronic liver disorders**			
	PE 26.1	Discuss the etiopathogenesis, clinical features and management of acute hepatitis in children	Y	K K	16
	PE 26.3	Discuss the etiopathogenesis, clinical features and management of chronic liver diseases in children.	Y	K K	17

8		**Pediatric Emergencies –**			
	PE 27.2	Describe the etiopathogenesis, clinical approach and management of cardiorespiratory arrest in children	Y	K KH	18
	PE 27.3	Describe the etiopathogenesis of respiratory distress in children	Y	K KH	19
	PE 27.4	Describe the clinical approach and management of respiratory distress in children	Y	K KH	
	PE 27.11	Explain the need and process of triage of sick children brought to health facility	Y	K KH	20
	PE 27.12	Enumerate emergency signs and priority signs	Y	K KH	21
	PE 27.13	List the sequential approach of assessment of emergency and priority signs	Y	K KH	
9		**Respiratory system**			
	PE 28.1	Discuss the etiopathogenesis, clinical features and management of Naso pharyngitis	**Y**	**K KH**	**22**
	PE 28.8	Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children	**Y**	**K KH**	
10		**Anemia and other Hemato-oncologic disorders**			
	PE 29.7	Discuss the etiology, classification, pathogenesis	**Y**	**K KH**	**23**

		and clinical features of Hemophilia in children.			
	PE 29.8-9	Discuss the etiology, clinical presentation and management of Acute Lymphoblastic Leukemia & Lymphoma in Children.	**N**	**K KH**	**24**
11		**Central Nervous system**			
	PE 30.1	Discuss the etiopathogenesis, clinical features, complications, management and prevention of meningitis (bactrerial, Tb & viral) in children	Y	K KH	25
	PE 30.3	Discuss the etiopathogenesis, classification, clinical features, complication and management of Hydrocephalus in children	Y	K KH	26
	PE 30.4	Discuss the etiopathogenesis, classification, clinical features, and management of Microcephaly in children	Y	K KH	27
	PE 30.7	Discuss the etiopathogenesis, clinical features, complications and management of Febrile seizures in children	Y	K KH	28

	PE 30.8	Define epilepsy. Discuss the pathogenesis, clinical types, presentation and management of Epilepsy in children	Y	K KH	29
	PE 30.9	Define Status Epilepticus. Discuss the clinical presentation and management OF IT.	Y	K KH	
	PE 30.10	Discuss the etiopathogenesis, clinical features and management of Mental retardation in children	Y	K KH	30
	PE 30.11	Discuss the etiopathogenesis, clinical features and management of children with cerebral palsy	Y	K KH	31
	PE 30.12	Enumerate the causes of floppiness in an infant and discuss the clinical features, differential diagnosis and management	Y	K KH	32
	PE 30.14	Discuss the etiopathogenesis, clinical features and management of Duchene muscular dystrophy	Y	K KH	33
12		**Endocrinology**			
	PE 33.1	Describe the etiopathogenesis clinical features, management of Hypothyroidism in children	Y	K KH	34

	PE 33.4	Discuss the etiopathogenesis, clinical types, presentations, complication and management of Diabetes mellitus in children	Y	K KH	35

4.1.3 Self Directed Learning ; (SDL)

Self Directed Learning (SDL)					
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**
1	PE 27.9	Discuss oxygen therapy, in Pediatric emergencies and modes of administration	Y	K KH	1
2	PE 28.2 & 28.3	Discuss the etiopathogenesis of Pharyngotonsillitis ,the clinical features and management of Pharyngotonsillitis	Y	K KH	2
3	PE28.4	Discuss the etiopathogenesis, clinical features and management of Acute Otitis Media (AOM)	Y	K KH	3
4	PE 31.1	Describe the etiopathogenesis, management and prevention of Allergic Rhinitis in Children	Y	K KH	4
5	PE 29.1	Discuss the etiopathogenesis, clinical features, classification	y	K KH	5

		and approach to a child with anemia			
	PE 29.5	Discuss the National Anemia Control Program.	Y	K KH	
6	PE 29.3	Discuss the etiopathogenesis, clinical features and management of Vitamin B-12, Folate deficiency anemia.	Y	K KH	6
7	PE 30.5	Enumerate the Neural tube defects. Discuss the causes, clinical features, types, and management of Neural Tube defect	Y	K KH	7
8	PE 30.13	Discuss the etiopathogenesis, clinical features, management and prevention of Poliomyelitis in children	Y	K KH	8
9	PE 30.6	Discuss the etiopathogenesis, clinical features, and management of Infantile hemiplegia	Y	K KH	9
10	PE 30.16	Discuss the approach to and management of a child with headache	Y	K KH	10

4.2 PRACTICAL

4.2.1 Bedside Clinics

Sl No	Comp no PE	Topic/ system	Core	Domain K/S/A Level K/KH,	Bed Side/ DOAP /	Week /hours
I		**Genito-Urinary system**				
1	PE 21.8	Elicit, document and present a history pertaining to diseases of the Genitourinary tract	Y	S SH	Bed Side	1WK 3 hr (1)
	21.8.1	Elicit clinical history pertaining to genitourinary diseases in children.	Y	S SH		
	21.8.2	Perform a complete physical examination for a child with genitourinary diseases.	Y	S SH		
	21.8.4	Document the complete history in the Logbook.	Y	S SH		
	PE 21.9	Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Icthyosis, anasarca	Y	S SH	Bed Side	
	21.9.1	Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Icthyosis, anasarca.	Y	S SH		
	PE21.10	Analyze symptom and interpret the physical findings and arrive at an appropriate provisional differential diagnosis	Y	S SH	Bed Side	
	21.10.1	Analyze symptoms and interpret the physical findings and arrive at an appropriate provisional differential diagnosis.	Y	S SH		

2	PE 21.11	Perform and interpret the common analytes in a Urine examination	Y	S SH	Bedside, Skills lab	3hr (2)
	21.11.1	Perform at least one test to elicit Proteinuria.	Y	S SH	Bedside, Skills lab	
	21.11.2	Interpret the tests for proteinuria and their significance.	Y	S SH		
	21.11.3	Perform test for evaluating Urine PH.	Y	S SH		
	21.11.4	Perform urine microscopy.	Y	S SH		
	21.11.5	Identify the abnormal deposits and Interpret the urine microscopy findings.	Y	S SH		
	21.11.6	Test the urine for glucosuria.	Y	S SH		
	21.11,7	Interpret the urine sugar results.	Y	S SH		
	PE 21.12	Interpret report of Plain X Ray of KUB	Y	S SH	Bedside/ Skills lab	
	21.12.1	Identify any abnormalities on X-Ray KUB.	Y	S SH		
	PE 21.13	Enumerate the indications for and Interpret the written report of Ultra sonogram of KUB	Y	S SH		
	21.13.1	Enumerate indications for Ultrasound KUB.	Y	K KH		
	21.13.2	Interpret the written report of ultrasonogram of KUB.	Y	S SH		
3	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	Y	S SH	Bedside	3hr (3)

		intussusception, Phimosis, undescended testis, Chordee, hypospadias, Torsion testis, hernia Hydrocele, Vulval Synechiae				
	21.14.1	Recognize common surgical conditions of the abdomen and genitourinary system and enumerate the indications for referral including acute and subacute intestinal obstruction, appendicitis, pancreatitis, perforation intussusception, Phimosis, undescended testis, Chordee, hypospadias, Torsion testis, hernia Hydrocele, Vulval Synechiae.	Y	S SH	Bedside	
4	PE 21.3.2 & PE 21.2	NEPHROTIC SYNDROME/A GLOMERULONEPHRITIS	Y	K KH		3hr (4)
5	PE 21.3.2 & PE 21.2	NEPHROTIC SYNDROME/A GLOMERULONEPHRITIS	Y	K KH		3hr (5)
6		REVISION/CASE PRESENTATION				3hr (6)
II		Gastrointestinal system& Liver				
7	PE 26.5	Elicit document and present the history related to diseases of Gastrointestinal system	Y	S S	Bedside	2 WK 3hr (7)

	26.5.1	Elicit the history for diseases of Gastrointestinal system.	Y	S S		
	26.5.2	Document the history.	Y	S SH		
	26.5.3	Present the history related to Gastrointestinal system.	Y	S SH		
	PE 26.7	Perform examination of the abdomen, demonstrate organomegaly, ascites etc.	Y	S SH	Bedside	
	26.7.1	Perform an examination of the abdomen in children of different ages.	Y	S SH		
	26.7.2	Detect organomegaly on abdominal examination giving details of the affected organ/s.	Y	S SH		
	26.7.3	Examine for ascites in children.	Y	S SH		
	26.7.4	Examine for other palpable masses in abdomen.	Y	S SH		
	PE 26.8	Analyze symptoms and interpret physical signs to make a provisional/ differential diagnosis	Y	S SH	Bedside	
	26.8.1	Analyze the symptoms in a child with gastrointestinal disorder.	Y	S SH		
	26.8.2	Interpret the physical signs in a child with gastrointestinal disorder.	Y	S SH		
	26.8.3	Formulate a provisional and differential diagnosis related to clinical presentation.	Y	S SH		

8	PE 26.6	Identify external markers for GI and	Y	SH	Bedside	3hr (8)

		Liver disorders e.g. Jaundice, Pallor, Gynaecomastia, Spider angioma, Palmar erythema, Icthyosis, Caput medusa, Clubbing, Failing to thrive, Vitamin A and D deficiency				
	PE 26. 9	Interpret Liver Function Tests, viral markers, Ultra sonogram report	Y	S SH	Bedside/ Skills lab	
	26.9.1	Interpret the given reports of liver function tests.	Y	S SH		
	26.9.2	Interpret the viral markers related to viral hepatitis.	Y	S SH		
	26.9.3	Interpret the given report of abdominal/ liver Ultrasonography.	Y	S SH		
	PE 26.13	Counsel and educate patients and their family appropriately on liver diseases	Y	A/C P	Bedside/ Skills lab	
	26.13.1	Counsel the family on liver disease in the child.	Y	A/C SH		
	26.13.2	Educate the family about prevention of liver disease.	Y	A/C P		
9	PE 26.1 PE 26.4	VIRAL HEPATITIS/NEONATAL CHOLESTASIS/ PORTAL HT	Y	S SH	Bedside	3hr (9)
III		Anemia and other Hemato-oncologic disorders				
10	PE 29.10	Elicit, document and present the history related to Hematology.	Y	S SH	Bedside	3hr (10)
	29.10.1	Elicit the history related to a hematological disorder.	Y	S SH		
	29.10.2	Document the history.	Y	S SH		
	29.10.3	Present the history	Y	S SH		

	PE 29.11	Identify external markers for hematological disorders e.g. Jaundice, Pallor, Petechiae, Purpura, Ecchymosis, Lymphadenopathy, bone tenderness, loss of weight, Mucosal and large joint bleed.	Y	S SH	Bedside	
	29.11.1	Identify jaundice, pallor, petechial spots, purpura, ecchymosis, lymphadenopathy, bone tenderness, Mucosal and large joint bleed in a patient of hematological disorder.	Y	S SH		
	PE 29.13	Analyze symptoms and interpret physical signs to make a provisional /differential diagnosis.	Y	S SH	Bedside	
	29.13.1	Analyze symptoms related to hemato-oncological conditions.	Y	S SH		
	29.13.2	interpret physical signs to make a provisional diagnosis	Y	S SH		
	29.13.3	Produce differential diagnosis keeping in mind the symptoms and signs related to haemato-oncological conditions.	Y	S SH		
11	PE 29.4 PE 29.2 PE 29.3	NUTRITIONAL ANEMIA/HEMOLYTIC ANEMIA	Y	S SH	Bedside	3hr (11)

	PE 29.14	Interpret CBC, LFT	Y	S SH	Bedside /Skill Lab	
	29.14.1	interpret Complete Blood Count Report	Y	S SH	DOAP session	
	29.14.2	Interpret Liver Function Tests Report.	Y	S SH		
	PE 29.15	Perform and Interpret peripheral smear.	Y	S SH	DOAP session	
	29.15.1	Prepare a peripheral blood film.	Y	S SH		
	29.15.2	Interpret the peripheral blood film.	Y	S SH		
	29.15.3	Make diagnosis of peripheral blood film.	Y	S SH		
	PE 29.16	Discuss the indications for Hemoglobin electrophoresis and interpret the report.	N	K K	Bedside/ skill lab	
	29.16.1	Enumerate the indications for Hemoglobin electrophoresis	N	K K		
	29.16.2	interpret the report of Hemoglobin electrophoresis	N	K K		
IV		Central Nervous system				
13	PE 30.17	Elicit, document and present an age appropriate history pertaining to the CNS	Y	S SH	Bedside	3hr (12)
	30.17.1	Elicit age appropriate detailed history pertaining to CNS	Y	S SH		
	30.17.2	Write down age appropriate history including history pertaining to CNS under appropriate headings	Y	S SH		
	30.17.3	Present the documented age appropriate history pertaining to	Y	S SH		

		CNS				
	PE 30.18	Demonstrate the correct method for physical examination of CNS including identification of external markers. Document and present clinical findings	Y	S SH	Bedside	
	30.18.1	Measure head circumference accurately.	Y	S SH		
	30.18.2	Recognize neurocutaneous markers.	Y	S SH		
	30.18.3	Do a complete CNS examination in children of different ages.	Y	S SH		
	30.18.4	Recognize involuntary movements.	Y	S SH		
	30.18.5	Examine for signs of meningeal irritation.	Y	S SH		
	30.18.6	Document and present clinical findings.	Y	S SH		
14	PE 30.11 PE 30.1 PE 30.6	CEREBRAL PALSY /HEMIPLEGIA/POST CNS INFECTION SEQUALE	Y	S SH	Bedside	3 WK 3hr (13)
15	PE 30.19	Analyse symptoms and interpret physical findings and propose a provisional / differential diagnosis	S	SH	Bedside	3 WK 3hr (14)
	30.19.1	Analyse symptoms and propose a provisional / differential diagnosis	S	SH		
	30.19.2	Interpret physical findings and propose a provisional / differential diagnosis	S	SH		
	30.19.3	Combine analysis of symptoms and	S	SH		

		interpretation of physical findings to propose a provisional / differential diagnosis				
	PE 30.20	Interpret and explain the findings in a CSF analysis	Y	S SH	Bedside/ skill lab	
	PE 30.23	Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure	Y	S SH	Bedside /Skill lab	
	PE 30.21	Enumerate the indication and discuss the limitations of EEG, CT, MRI	N	K K	Bedside/ skill lab	
16	PE 30.4 PE 30.3 PE 30.2	MICROCEPHALY/HYDROCEPHALY /TBM/CNS CASE	Y	S SH	Bedside	3 WK 3hr (15)
V		Endocrinology				
17	PE 33.2 PE 2.2 PE12.4	SHORT STATURE/HUPOTHYRODISM/RICKETS/DWARF	Y	S SH	Bedside	3 WK 3hr (16)
	PE 33.2	Recognize the clinical signs of Hypothyroidism and refer	Y	S SH	Bedside	
	PE 33.3	Interpret and explain neonatal thyroid screening report	Y	S SH	Bedside/ Skilllab	
18	PE 33.7	Perform genital examination and recognize Ambiguous Genitalia and refer appropriately	Y	S SH	Bedside	3 WK 3hr (17)
	PE 33.9	Perform Sexual Maturity Rating (SMR) and interpret	Y	S SH	Bedside	
		Perform SMR staging				

	33.9.1	maintaining full dignity of the adolescent patient and interpret it correctly	Y	K/S SH		
	PE 33.10	Recognize precocious and delayed Puberty and refer	Y	S SH	Bedside	
	33.10.1	Recognize features of precocious and delayed puberty in a child	Y	S SH		
	33.10.2	Counsel the parents for need to refer the child to higher center after diagnosing precocious or delayed Puberty	SY	S/C SH		
19		REVISION/CASE PRESENTATION	Y	S SH	Bedside	3 WK 3hr (18)
20	PE 33.5	Interpret Blood sugar reports and explain the diagnostic criteria for Type 1 Diabetes	Y	S SH	Bedside/ SKILLLAB	4 WK 3hr (19)
	33.5.1	Identify Type 1 Diabetes from a given blood report as per latest diagnostic criteria of DM (American Diabetes Association, 2016)	Y	K/S SH		
	PE 33.6	Perform and interpret Urine Dip Stick for Sugar	Y	S P	Bedside/ SKILLLAB	
	33.6.1	Perform urine dipstick test for sugar and interpret it correctly	Y	S P		
21	PE 20.3 PE 20.4	NEWBORN CASE PRESENTATION	Y	S SH	Bedside	3hr (20)

22	PE 2.2 P E 10.3&5	PEM/SAM/NAM CASE PRESENTATION	Y	S SH	Bedside	3hr (21)
23	PE3.3 PE3.8 PE 23.7 PE 23.10	CASE PRESENTATION- CVS/CNS-CP/HEPATOSPLENOMEGALY/THALASSEMIA	Y	S SH	Bedside	3hr (22)
24	PE 20.4 PE 24.9	CASE PRESENTATION-NEWBORN/PAEDIATRICS	Y	S SH	Bedside	3hr (23)
25		END TERM/PRELIMS EXAMS				3hr (24)

4.2.2 Clinical Clerkship / Evening Clinics

Clinical Clerkship / Evening Clinics			
Day	**Topic**	**Suggested TL Method**	**No. of Hours**
OPD	Examination of Cases in OPD		1 hour
Post OPD	Writing Case Papers, Investigations		1 hour
OT	Not Applilcable		
Post OT	Not Applicable		
Ward Rounds	Follow ups, Discharge Papers		1 hour

4.2.3 Skill Lab

4.2.4

Skill Lab			
Sl. No	**Comp No**	**Topic: Competency (Number & Details)**	**No. of Hours**
1	PE 20.3	Neonatal Resuscitation	2 hours
2	PE 15.6	Setting up Paediatric Infusion and calculating drip rate	2 hours
3	PE 15.7	Setting up paediatric IV line	2hours

4.2.4 Certifiable Skills

	Certifiable Skills				
S.NO	**Number**	**Competency Details**	**Number required to Certify P**	**Date completed**	**Reference Page no.**
1	PE 1.4	Perform anthropometric measurements, document in growth charts and interpret	3		
2	PE 1.7	Perform developmental assessment and Interpret	3		
3	PE 7.5	Observe the correct technique of breast feeding and distinguish right from wrong techniques	3		
4	PE 11.5	Calculate BMI, document in BMI chart and Interpret	3		
5	PE 19.6	Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule	5		

6	PE 24.15	Perform NG tube insertion in a manikin	2		
7	PE 24.16	Perform IV cannulation in a model	2		
8	PE 24.17	Perform interosseous insertion model	2		
9	PE 27.15	Assess airway and breathing: recognize signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting	3		
10	PE 27.16	Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment	3		
11	PE 27.17	Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate	3		
12	PE 27.18	Assess airway and breathing: perform assisted ventilation by bag and mask in a simulated environment	3		
13	PE 27.19	Check for signs of shock i.e. pulse, blood pressure, CRT	3		
14	PE 27.20	Secure an IV access in a simulated environment	3		
15	PE 27.21	Choose the type of fluid and calculate the fluid requirement in shock	3		
16	PE 27.22	Assess level of consciousness & provide emergency	3		

		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			
17	PE 27.23	Assess for signs of severe dehydration	3		
18	PE 27.28	Provide BLS for children in manikin	3		
19	PE 33.6	Perform and interpret urine dip stick for sugar	3		
20	PE 33.11	Identify deviations in growth and plan appropriate referral	2		
21	PE 34.6	Identify a BCG scar	3		
22	PE 34.7	Interpret a Mantoux test	3		
23	PE 34.11	Perform AFB staining	3		

a. AETCOM Module

AETCOM Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1	PE 4.7 Case studies in ethics and patient autonomy Consent and Guardianship in pediatric patients	As Per schedule	5 hours

b. Pandemic Module

Pandemic Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1	NOT Applicable		

3 SCHEME OF EXAMINATION

5.1 Eligibility Criteria

- Students must secure at least 50% 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 Summative / University examination.
- Student should have a minimum of 75% attendance in Theory and 80% in Practical classes to be eligible to appear for Summative / University examination.
- Student must have completed the required certifiable competencies and completed the log book

5.2 Internal Assessment

5.2.1 Theory

- Multiple (a minimum of two) Internal Assessments (IA) will be conducted.
- The last IA will be conducted as Preliminary examination, which will mirror the university exams in marks and pattern.
- The final IA marks will be derived based on the table given below.
- The blueprint of all the IAs is also given in the table below.

Table 1: Theory Internal Assessment

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

Table 2: Blueprint of IA (Theory)

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

6.2.2. Practical

- Each clinical posting will include and End of Posting (EoP) test.
- The marks allotted for each EoP is tabulated below.
- The preliminary examination will include a practical examination which will mirror the university examination in marks and pattern.

Table 3: Practical Internal Assessment

DEPARTMENT OF PAEDIATRICS Integrated phase-wise Internal Assessment					
PRACTICAL		**Phase 2**	**Phase 3-1**	**Phase 3-2**	**Final Total**
		2 weeks	**4 weeks**	**4 weeks**	
		EOP-1	**EOP-2**	**EOP-3**	
EOP	**Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)**	40	40	50	
	Viva-voce (may include AETCOM)	10	10	10	
Others	**Formative assessment including Clinical-Clerkship**	05	05	10	
	Logbook/ Record book	05	05	10	
Total		**60**	**60**	**80**	**200**

FINAL EOP IA MARKS = 100 (final total divided by 2) 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 Practical Examinations will be conducted for 100 marks & will mirror Summative / University Practical Examinations**
$$\text{Final practical IA marks (100)} = \frac{\text{Final EOP marks (100)} + \text{Preliminary Exam (100)}}{2}$$

6.2.3. Formative (Day to Day) Assessment

- Day to Day assessment will be performed and it will be added to the iA marks of theory as well as practical (as in tables above)
- Formative (Day to Day) assessment will be calculated based on attendance, maintenance of record books, log books, journals, case sheets etc
- Any assignments, presentations, seminars or other academic activity of note shall also reflect in the formative assessment

6.2.4. Remedial Assessment

- Remedial Examinations will be conducted as per the policy of Shri Dharamasthala Manjunatheshwara University and will be based on NMC guidelines.

5.3 Summative Assessment

5.3.1 Pass Criteria

- A candidate shall obtain 50% marks in university conducted examination separately in Theory and Practical (practical includes: practical/ clinical and viva voce) in order to be declared as passed in that subject.
- In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass in the said subject.

5.3.2 Theory Summative Examination Format

- Third Professional Part II - (Final Professional) examination shall be at the end of training (14 months including 2 months of

electives) in the subjects of General Medicine, General Surgery, Obstetrics & Gynecology and Pediatrics.

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

5.3.3 Blueprint of Theory Summative Examination

Table 4: Blueprint of theory summative examination

Blueprint of Theory Summative Examination	**Only one theory paper**
Multiple Choice Questions **(MCQ)** **(1 mark each)**	20
Structured Long Essay Questions **(SLEQ)** **(10 marks each)**	02
Short Essay Questions **(SEQ)** **(5 marks each)**	08
Short Answer Questions **(SAQ)** **(2 marks each)**	10
TOTAL	**100**
AETCOM should have a weightage of 5 marks	

Table 5: Blueprint (Topic based) of theory summative examination

Blueprint of Theory Summative Examination (Topic based weightage)						
Topic / System	**Total Weightage (%)**	**MCQ**	**SLEQ**	**SEQ**	**SAQ**	**Total Marks**
1.Introduction to Paediatrics	3					
2.Normal Growth and its Disorders	7					

3.Development	7					
4.Adolescent Health and Development	2					
5. Fluid and Electrolyte Disturbances	3					
6.Nutrition	4					
7. Micronutrients in health and Disorders	4					
8.Newborn Infants	8					
9. Immunization and Immunodeficiency	4					
10. Infections and Infestations	8					
11. Disease of Gastrointestinal System and Liver	4					
12. Hematological Disorders	4					
13. Otolaryngology	1					
14. Disorders of Respiratory System	4					
15. Disorders of Cardiovascular System	4					
16. Disorders of kidney and urinary tract	3					
17. Endocrine and Metabolic Disorders	3					
18. Central Nervous System	4					
19.Neuromuscular Disorders	2					
20. Childhood Malignancies	2					
21.Rheumatological Disorders	1					
22. Genetic Disorders	2					

23. Inborn Errors of Metabolism	1					
24. Eye Disorders	1					
25. Skin Disorders	2					
26. Poisonings, Injuries and Accidents	4					
27. Pediatric Critical Care	3					
28. Integrated Management of Neonatal and Childhood Illness	3					
29. AETCOM (5 marks per paper)	2					
Total	100					

5.3.4 Practical Summative Examination Format

Practical Summative Examination Format		**Number of cases**	**Marks allotted for each case**	**Total (Marks)**
Clinical Cases	**Long cases (Paediatric Case)**	**1**	**40**	**40**
	Short cases (Newborn)	**1**	**40**	**40**
	Case scenarios			
Ward Cases				
Spotters				
Viva-voce (Nutrition, Drugs, Instruments & X-Rays)		**4 Stations**	**5**	**20**
Others				
TOTAL				**100**

6 INTEGRATION (HORIZONTAL & VERTICAL)

INTEGRATION					
Sl. no	**COMP NO**	**Competency Detail**	**Nesting / Sharing / Aligning / Correlation**	**Integration with departments**	
				Horizontal	**Vertical**
Anatomy					
1.	AN25.4	Describe embryological basis of: 1) atrial septal defect, 2)ventricular septal defect , 3)Fallot's tetralogy & 4) tracheo-oesophageal fistula		Physiology	General Medicine, Pediatrics
2.	AN25.5	Describe developmental basis of congenital anomalies, transposition of great vessels, dextrocardia, patent ductus arteriosus and coarctation of aorta		Physiology	General Medicine, Pediatrics
3.	AN25.9	Demonstrate surface marking of lines of pleural reflection, Lung borders and fissures, Trachea, Heart borders, Apex beat & surface projection of valves of heart		Physiology	General Medicine, Pediatrics
4.	AN63.2	Describe anatomical basis of congenital hydrocephalus		Physiology	Pediatrics
5.	AN64.3	Describe various types of open neural tube defects with its embryological basis			Obstetrics & Gynaecology, Pediatrics
6.	AN74.1	Describe the various modes of inheritance with examples			General Medicine, Pediatrics
7	AN74.2	Draw pedigree charts for the various types of inheritance & give examples of diseases of each mode of inheritance			General Medicine, Pediatrics

8	AN74.4	Describe the genetic basis & clinical features of Achondroplasia, Cystic Fibrosis, Vitamin D resistant rickets, Hemophilia, Duchene's muscular dystrophy & Sickle cell anaemia			General Medicine, Pediatrics
9	AN75.1	Describe the structural and numerical chromosomal aberrations			Pediatrics
10	AN75.2	Explain the terms mosaics and chimeras with example			Pediatrics
11	AN75.3	Describe the genetic basis & clinical features of Prader Willi syndrome, Edward syndrome & Patau syndrome			Pediatrics
12	AN75.4	Describe genetic basis of variation; polymorphism and mutation			Pediatrics
13	AN75.5	Describe the principles of genetic counselling			Pediatrics, Obstetrics & Gynaecology
Physiology					
1	PY11.6	Describe physiology of Infancy			Pediatrics
2	PY11.9	Interpret growth charts			Pediatrics
3	PY11.10	Interpret anthropometric assessment of infants			Pediatrics
Biochemistry					
1	BI5.3	Describe the digestion and absorption of dietary proteins			Pediatrics
2	BI5.4	Describe common disorders associated with protein metabolism			Pediatrics
3	BI7.3	Describe gene mutations and basic mechanism of regulation of gene expression			Pediatrics
4	BI7.4	Describe applications of			Pediatrics,

		recombinant DNA technology, PCR in the diagnosis and treatment of diseases with genetic basis			General Medicine
5	BI8.1	Discuss the importance of various dietary components and explain importance of dietary fibre			General Medicine, Pediatrics, Pathology
6	BI8.2	Describe the types and causes of protein energy malnutrition and its effects			General Medicine, Pediatrics, Pathology
7	BI8.5	Summarize the nutritional importance of commonly used items of food including fruits and vegetables. (macro-molecules & its importance)			Community Medicine, General Medicine, Pediatrics
8	BI10.5	Describe antigens and concepts involved in vaccine development			Pathology, Pediatrics, Microbiology
Pathology					
1	PA12.2	Describe the pathogenesis of disorders caused by protein calorie malnutrition and starvation			Biochemistry, Pediatrics
2	PA21.2	Classify and describe the etiology, pathogenesis and pathology of vascular and platelet disorders including ITP and hemophilias			Pediatrics
3	PA28.12	Define, classify and describe the genetics, inheritance etiology, pathogenesis, pathology, laboratory, urinary findings, distinguishing features, progression and complications			General Medicine, Pediatrics

		of cystic disease of the kidney			
4	PA28.14	Classify and describe the etiology, genetics, pathogenesis, pathology, presenting features, progression and spread of renal tumors			Pediatrics
5	PA31.4	Enumerate and describe the etiology, hormonal dependency and pathogenesis of gynecomastia			Pediatrics, General Medicine
6	PA35.2	Classify and describe the etiology, genetics, pathogenesis, pathology, presentation sequelae and complications of CNS tumors			Pediatrics
Microbiology					
1	MI1.8	Describe the mechanisms of immunity and response of the host immune system to infections		Pathology	Pediatrics
2	MI1.9	Discuss the immunological basis of vaccines and describe the Universal Immunisation schedule			Paediatrics
3	MI1.10	Describe the immunological mechanisms in immunological disorder (hypersensitivity, autoimmune disorders and immunodeficiency states) and discuss the laboratory methods used in detection			Paediatrics
4	MI3.1	Enumerate the microbial agents causing diarrhea and dysentery. Describe the epidemiology, morphology, pathogenesis, clinical features, and diagnostic modalities of these agents		Pathology	General Medicine, Paediatrics

5	MI3.2	Identify the common etiologic agents of diarrhea and dysentery			General Medicine, Paediatrics
6	MI5.1	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of meningitis		Pathology	General Medicine, Paediatrics
7	MI5.2	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of encephalitis		Pathology	General Medicine, Paediatrics
8	MI5.3	Identify the microbial agents causing meningitis			General Medicine, Paediatrics
Pharmacology					
1	PH1.12	Calculate the dosage of drugs using appropriate formulae for an individual patient, including children, elderly and patient with renal dysfunction			Pediatrics, General Medicine
2	PH1.43	Describe and discuss the rational use of antimicrobials including antibiotic stewardship program		Microbiology	General Medicine Pediatrics
3	PH1.56	Describe basic aspects of Geriatric and Pediatric pharmacology			Pediatrics
4	PH2.4	Demonstrate the correct method of calculation of drug dosage in patients including those used in special situations			Pharmacology, General Medicine
Community Medicine					
1	CM3.3	Describe the aetiology and basis of water borne diseases /jaundice/hepatitis/ diarrheal diseases			Microbiology, General Medicine, Pediatrics
2	CM5.1	Describe the common sources of various nutrients and special			General Medicine,

		nutritional requirements according to age, sex, activity, physiological conditions			Pediatrics
3	CM5.2	Describe and demonstrate the correct method of performing a nutritional assessment of individuals, families and the community by using the appropriate method			General Medicine, Pediatrics
4	CM5.3	Define and describe common nutrition related health disorders (including macro-PEM, Micro-iron, Zn, iodine, Vit. A), their control and management.			General Medicine, Pediatrics
5	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			General Medicine, Pediatrics
6	CM5.5	Describe the methods of nutritional surveillance, principles of nutritional education and rehabilitation in the context of socio- cultural factors			General Medicine, Pediatrics
7	CM5.6	Enumerate and discuss the National Nutrition Policy, important national nutritional Programs including the Integrated Child Development Services Scheme (ICDS) etc			Pediatrics
8	CM5.8	Describe and discuss the importance and methods of food fortification and effects of additives and adulteration			Pediatrics

9	CM6.1	Formulate a research question for a study			General Medicine, Pediatrics
10	CM6.2	Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data			General Medicine, Pediatrics
11	CM6.3	Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs			General Medicine, Pediatrics
12	CM6.4	Enumerate, discuss and demonstrate common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion			General Medicine, Pediatrics
13	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		Microbiology, Pathology	General Medicine, Pediatrics
14	CM8.3	Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case			General Medicine, Pediatrics
15	CM8.4	Describe the principles and enumerate the measures to control a disease epidemic			General Medicine, Pediatrics

16	CM8.5	Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease			General Medicine, Pediatrics
17	CM9.2	Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates			Obstetrics & Gynaecology, Pediatrics
18	CM10.1	Describe the current status of Reproductive, maternal, newborn and Child Health			Obstetrics & Gynaecology, Pediatrics
19	CM10.2	Enumerate and describe the methods of screening high risk groups and common health problems			Obstetrics & Gynaecology, Pediatrics
20	CM10.3	Describe local customs and practices during pregnancy, childbirth, lactation and child feeding practices			Obstetrics & Gynaecology, Pediatrics
21	CM10.4	Describe the reproductive, maternal, newborn & child health (RMCH); child survival and safe motherhood interventions			Obstetrics & Gyna ecolo gy, Pedia trics
22	CM10.5	Describe Universal Immunization Program; Integrated Management of Neonatal and Childhood Illness (IMNCI) and other existing Programs			Pediatrics
Forensic Medicine & Toxicology					
1	FM1.9	Describe the importance of documentation in medical practice in			Radiodiagnosis, General

		regard to medicolegal examinations, Medical Certificates and medicolegal reports especially – maintenance of patient case records, discharge summary, prescribed registers to be maintained in Health Centres. -- maintenance of medico-legal register like accident register. -- documents of issuance of wound certificate -- documents of issuance of drunkenness certificate. -- documents of issuance of sickness and fitness certificate. -- documents for issuance of death certificate. -- documents of Medical Certification of Cause of Death - Form Number 4 and 4A -- documents for estimation of age by physical, dental and radiological examination and issuance of certificate			Surgery, General Medicine, Paediatrics
2	FM2.27	Define and discuss infanticide, foeticide and stillbirth			Pediatrics
3	FM2.28	Describe and discuss signs of intrauterine death, signs of live birth, viability of foetus, age determination of foetus, DOAP			Pediatrics, Human Anatomy

		session of ossification centres, Hydrostatic test, Sudden infants death syndrome and Munchausen's syndrome by proxy			
4	FM3.29	Describe and discuss child abuse and battered baby syndrome			Pediatrics
Dermatology, Venereology & Leprosy					
1	DR5.1	Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies		Pharmacology	Pediatrics
2	DR5.2	Identify and differentiate scabies from other lesions		Microbiology	Pediatrics
3	DR5.3	Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies			Pediatrics
4	DR6.1	Describe the etiology, pathogenesis and diagnostic features of pediculosis		Microbiology	Pediatrics
5	DR6.2	Identify and differentiate pediculosis from other skin lesions		Microbiology	Pediatrics
6	DR7.1	Describe the etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of dermatophytes			Pediatrics
7	DR8.1	Describe the etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of common viral infections of the skin			Pediatrics
8	DR17.1	Enumerate and identify the			General

		cutaneous findings in vitamin A deficiency			Medicine, Pediatrics, Biochemistry
9	DR17.2	Enumerate and describe the various skin changes in Vitamin B complex deficiency			General Medicine, Pediatrics, Biochemistry
10	DR17.3	Enumerate and describe the various changes in Vitamin C deficiency			General Medicine, Pediatrics, Biochemistry
11	DR17.4	Enumerate and describe the various changes in Zinc deficiency			General Medicine, Pediatrics, Biochemistry
Anesthesiology					
1	AS2.1	Enumerate the indications, describe the steps and demonstrate in a simulated environment basic life support in adults children and neonates			General Medicine, Pediatrics
Psychiatry					
1	PS14.1	Enumerate and describe the magnitude and etiology of psychiatric disorders occurring in childhood and adolescence			Pediatrics
2	PS14.2	Enumerate, elicit, describe and document clinical features in patients with psychiatric disorders occurring in childhood and adolescence			Pediatrics
3	PS14.3	Describe the treatment of stress related disorders including behavioural, psychosocial and pharmacologic therapy			Pediatrics

4	PS14.4	Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment			Pediatrics
5	PS14.5	Enumerate and describe the pharmacologic basis and side effects of drugs used in psychiatric disorders occurring in childhood and adolescence			Pediatrics
6	PS15.1	Describe the aetiology and magnitude of mental retardation			Pediatrics
7	PS15.2	Describe and discuss intelligence quotient and its measurement			Pediatrics
8	PS15.3	Elicit and document a history and clinical examination and choose appropriate investigations in a patient with mental retardation			Pediatrics
9	PS15.4	Describe the psychosocial interventions and treatment used in mental retardation			Pediatrics
General Medicine					
1	IM23.1	Discuss and describe the methods of nutritional assessment in an adult and calculation of caloric requirements during illnesses		Pediatrics	Physiology, Biochemistry
2	IM23.2	Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital		Pediatrics	Physiology, Biochemistry
3	IM23.3	Discuss and describe the aetiology, causes, clinical manifestations,		Pediatrics	Physiology, Biochemistry

		complications, diagnosis and management of common vitamin deficiencies			
4	IM23.4	Enumerate the indications for enteral and parenteral nutrition in critically ill patients		Pediatrics	Physiology, Biochemistry
Obstetrics & Gynocology					
1	OG1.2	Define and discuss perinatal mortality and morbidity including perinatal and neonatal mortality and morbidity audit		Pediatrics	Community Medicine
2	OG18.1	Describe and discuss the assessment of maturity of the newborn, diagnosis of birth asphyxia, principles of resuscitation, common problems		Pediatrics	
3	OG18.2	Demonstrate the steps of neonatal resuscitation in a simulated environment		Pediatrics	
4	OG18.3	Describe and discuss the diagnosis of birth asphyxia		Pediatrics	
	OG18.4	Describe the principles of resuscitation of the newborn and enumerate the common problems encountered		Pediatrics	
Physical Medicine & Rehabilitation					
	PM3.1	Describe and discuss the clinical features, types, evaluation, diagnosis and management of cerebral palsy		Pediatrics	Human Anatomy
	PM3.2	Recognize, describe and discuss the spectrum of multiple disability : cognitive, motor, visual and hearing in cerebral palsy		Pediatrics	

	PM3.3	Recognize, describe and discuss the role of special education in children with learning disabilities		Pediatrics	
	PM3.4	Demonstrate spasticity, rigidity and dystonia in children with cerebral palsy		Pediatrics	
	PM3.5	Enumerate the indications and describe the therapies for spasticity including medications, serial casts, nerve blocks, botulinum toxin injections		Pediatrics, Orthopedics	Pharmacology
	PM3.6	Enumerate the indications and describe prevention of joint subluxations and contractures by proper positioning, and use of special chairs, and appliances		Pediatrics	
	PM3.7	Enumerate the first aid measures to be used in patients with seizures		Pediatrics	
	PM4.2	Describe and discuss the principles of management of chronic pain and role of common modalities (moist heat, ultrasound, Short wave diathermy)		Pediatrics	

7 RECOMMENDED BOOKS

7.1 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.

7.2 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.

7.3 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

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ORTHOPEDICS

14. 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.

15. OBJECTIVES

a. Knowledge & 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.

b. Attitude & 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. Motivate patients with chronic diseases to adhere to the line of management as outlined by the health care provider.
iii. Follow the treatment guidelines and counsel the patient to adhere and comply.
iv. Respect patient's privacy.
v. Maintain confidentiality.
vi. Work in a healthcare team efficiently while respecting all its members.
vii. Continuously strive for updating his/her own knowledge and skill.
viii. To treat prolonged illnesses with regular follow-up, monitoring, proper counseling and refer to higher centers if required.

c. 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.

16. TEACHING HOURS

THEORY	Teaching-Learning Method	No. of Hours
A	Large Group Teaching (LGT)	**20**
B	Small Group Teaching (SGT)	**25**
C	Self Directed Learning (SDL)	**5**
	Total	**50**

PRACTICAL	Teaching-Learning Method	No. of Weeks
A	Bedside Clinics	**2**
	Total	**2**

OTHERS	Teaching-Learning Method	No. of Hours
A	AETCOM	
B	Pandemic Module	
C	Skill Lab	
	Total	

17. COURSE CONTENT

a. Theory

i. Large Group Teaching (LGT)

Large Group Teaching (LGT) Theory Classes			
Sl. No	**Topic: Competency (Number & Details)**		**No. of Hours**
1	OR 5.1	Rheumatoid arthritis	1 hour
2	OR 5.1	Ankylosing spondylitis & SSRA	1 hour
3	OR 6.1	Cervical and Lumbar Spondylosis	1 hour
4	OR 6.1	IVDP and Lumbar Canal stenosis	2 hour
5	OR 7.1	Calcium metabolism and Osteoporosis	1 hour
6	OR 7.1	Vit D metabolism and Rickets	1 hour
7	OR 7.1	Osteoporosis, Osteomalacia	1 hour
8	OR 8.1	PPRP	1 hour
9	OR 9.1	Cerebral Palsy	1 hour
10	OR 10.1	General Principles of Bone tumours	1 hour
11	OR 10.1	Benign bone tumours	1 hour
12	OR 101.1	Malignant Bone tumours	1 hour
13	OR 11.1	Peripheral nerve injuries (General) and Foot drop	1 hour
14	OR 11.1	Radial, Median, Ulnar nerve injuries	2 hour
15	OR 11.1	Claw Hand, Entrapment neuropathies	1 hour
16	OR 12.1	Scoliosis & Neural tube defects	1 hour
17	OR 12.1	CDH, Torticollis	1 hour
18	OR 12.1	CTEV	1 hour

ii. Small Group Teaching (SGT)

Small Group Teaching (SGT) Tutorials / Seminar / Group discussions etc.			
Sl. No	**Topic: Competency (Number & Details)**		**No. of Hours**
1.	OR2.4	Supracondylar fracture humerus in children	1 hour
2.	OR 12.1	Perthes disease and SCFE	1 hour
3.	OR 11.1	Carpal Tunnel syndrome, Cubital Tunnel Syndrome	1 hour
4.	OR 2.6	Scaphoid fracture	1 hour
5.	OR 4.1	TB Spine	1 hour
6.	OR 10.1	GCT	1 hour
7.	OR 10.1	Ewings sarcoma, Osteosarcoma	1 hour

8.	OR 2.11	ACL injuries and PCL injuries	2 hour
9.	OR 2.11	Meniscal Injuries	1 hour
10.	OR6.1	Spondyloysis, Spondylolisthesis	1 hour
11.	OR 11.1	Brachial plexus injuries	1 hour
12.	OR 11.1	Thoracic outlet syndrome	1 hour
13.	OR 11.1	Foot drop, Wrist drop	1 hour
14.	OR 5.1	Osteoarthritis	1 hour
15.	OR 12.1	CTEV	1 hour
16.	OR 12.1	DDH	1 hour
17.	OR 6.1	IVDP	1 hour
18.	OR 2.12	Fat Embolism	1 hour
19.	OR 14.2	Amputation	1 hour
20.	OR 8.1/OR 9.1	Gait Analysis	1 hour
21.	OR 2.9	Acetabular fracture	1 hour
22.	OR 4.1	Potts Spine	1 hour
23.	OR 4.1	TB Hip/Knee	2 hour
24.	OR 7.1	Rickets (Genu Varum / Genu Valgum)	1 hour

iii. Self Directed Learning (SDL)

Self Directed Learning (SDL)		
Sl. No	**Topic: Competency (Number & Details)**	**No. of Hours**
1	OR 13.1 Splints and tractions	1 hour
2	OR 14.2Prosthesis	1 hour
3	OR 1.5 & 1.6AVN femoral head	1 hour
4	OR 12.1Pes planus and Pes cavus	1 hour
5	OR 5.1OA Knee	1 hour

b. Practical

i. Bedside Clinics

Bedside Clinics				
Sl. No	**Topic: Competency (Number & Details)**		**Suggested TL Method**	**No. of Hours**
1	OR 1.5	Examination of Hip joint, IT fracture, neck of femur fracture	Bedside clinics	3 hour
2	OR 1.5	Examination of Hip joint TB Hip AVN, Hip Arthritis	Bedside clinics	3 hour

3	OR1.5	Examination of Knee joint ACL and PCL ligaments injury Meniscal injuries	Bedside clinics	3 hour
4	OR 1.5	Examination of Shoulder Periarthritis shoulder Cuff injuries	Bedside clinics	3 hour
5	OR 2.14	Examination of Foot and Ankle CTEV Foot drop Flat foot	Bedside clinics	3 hour
6	OR 11.1	Ulnar nerve, medial nerve and Radial nerve injuries	Bedside clinics	3 hour
7	OR 2.4	Cubitus Varus, Cuitus Valgum, Myositis ossificans	Bedside clinics	3 hour
8	OR 4.1	TB Spine	Bedside clinics	3 hour
9	OR 6.1	IVDP, Spondylolysis , Spondylolisthesis	Bedside clinics	3 hour
10	OR 8.1	Gait Examination	Bedside clinics	3 hour
11	OR 8.1	Neuromuscular disorders , Cerebral palsy and Poliomyelitis	Bedside clinics	3 hour

c. Clinical Clerkship / Evening Clinics

Clinical Clerkship / Evening Clinics			
Day	**Topic**	**Suggested TL Method**	**No. of Hours**
OPD	OR 14.1 – Counselling patients regarding prognosis in patients with various orthopaedic illness OR 2.3 - Select, Prescribe and communicate appropriate medication for pain relief OR1.5 , OR 6.5, OR 2.14, OR 11.1, OR 2.4, OR 2.15	Bedside clinics	2 hours
Post OPD	OR 1.1- Pre hospital care and casualty management of trauma victim including triage (at casualty) OR 1.2 – Clinical features and management of shock (at casualty) OR 14.2 – Consent for various orthopaedics procedures	Bedside clinics	2 hours
OT	OR 3.3 – Participate as a member in team , procedures live drainage of abscess, Sequestrectomy, Saucerization and arthrotomy.	Bedside clinics	2 hours

	OR 2.16 – Prevention of secondary infection (OT culture, Maintenance of sterility)		
Post OT	OR 12.2: Participate as a member in team bladder catheterization, IV access, Splinting and at casualty resuscitation of polytrauma patient	Bedside clinics	2 hours
Ward Rounds	OR 3.2 – Compression bandage, Wound dressing	Bedside clinics	2 hours

i. Skill Lab

Skill Lab		
Sl. No	**Topic: Competency (Number & Details)**	**No. of Hours**
1	OR 13.1 – Upper limb – Above elbow plaster and Below elbow plaster	3 hours
2	Basic fracture fixation (O)	3 hours

ii. Certifiable Skills

Certifiable Skills			
Sl. No	**Skills that require certification**	**Criteria for certification**	**No. of Attempts**
1	OR 13.1 – Lower limb and Upper limb – Above elbow plaster, Below elbow plaster, Above knee plaster, Below knee plaster	Should be able to put Above elbow plaster and Above knee plaster correctly	2

d. AETCOM Module

AETCOM Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1			
2			
3			

e. Pandemic Module

Pandemic Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
NOT APPLICABLE			

18. SCHEME OF EXAMINATION

a. Eligibility Criteria

- Students must secure at least 50% 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 Summative / University examination.
- Student should have a minimum of 75% attendance in Theory and 80% in Practical classes to be eligible to appear for Summative / University examination.
- Student must have completed the required certifiable competencies and completed the log book

b. Internal Assessment

i. Theory

- Multiple (a minimum of two) Internal Assessments (IA) will be conducted.
- The last IA will be conducted as Preliminary examination, which will mirror the university exams in marks and pattern.
- The final IA marks will be derived based on the table given below.
- The blueprint of all the IAs is also given in the table below.

Table 1: Theory Internal Assessment

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

Table 2: Blueprint of IA (Theory)

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

6.2.5. Practical

- Each clinical posting will include and End of Posting (EoP) test.
- The marks allotted for each EoP is tabulated below.
- The preliminary examination will include a practical examination which will mirror the university examination in marks and pattern.

Table 3: Practical Internal Assessment

DEPARTMENT OF ORTHOPAEDICS Integrated phase-wise Internal Assessment					
PRACTICAL		**Phase 2** **2 weeks** **EOP-1**	**Phase 3-1** **4 weeks** **EOP-2**	**Phase 3-2** **2 weeks** **EOP-3**	**Final Total**
EOP	**Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)**	20	50	20	
	Viva-voce (may include AETCOM)	05	10	10	
Others	**Formative assessment**	05	05	05	
	Logbook/ Record book	--	05	05	
Total		**30**	**70**	**40**	**140**
FINAL PRACTICAL IA MARKS = 35 (final total divided by 4) 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)					

6.2.6. Formative (Day to Day) Assessment

- Day to Day assessment will be performed and it will be added to the iA marks of theory as well as practical (as in tables above)
- Formative (Day to Day) assessment will be calculated based on attendance, maintenance of record books, log books, journals, case sheets etc
- Any assignments, presentations, seminars or other academic activity of note shall also reflect in the formative assessment

6.2.7. Remedial Assessment

- Remedial Examinations will be conducted as per the policy of Shri Dharmasthala Manjunatheshwara University and will be based on NMC guidelines.

c. Summative Assessment

i. Pass Criteria

- A candidate shall obtain 50% marks in university conducted examination separately in Theory and Practical (practical includes: practical/ clinical and viva voce) in order to be declared as passed in that subject.
- In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass in the said subject.

ii. Theory Summative Examination Format

- Third Professional Part II - (Final Professional) examination shall be at the end of training (14 months including 2 months of electives) in the subjects of General Medicine, General Surgery, Obstetrics & Gynecology and Pediatrics.
- The disciplines of Orthopedics, Anesthesiology, Dentistry and Radiodiagnosis will constitute 25% of the total theory marks incorporated as a separate section in paper II of General Surgery.
- The disciplines of Psychiatry and Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis will constitute 25% of the total theory marks in General Medicine incorporated as a separate section in paper II of General Medicine.

iii. Blueprint of Theory Summative Examination

- Orthopedics is an allied subject of General Surgery
- It will be included in the Paper 2 of General Surgery as a separate section along with Anesthesiology, Dentistry and Radiodiagnosis

Table 4: Division of allied subjects of General Surgery in theory summative examination

ALLIED SUBJECTS OF GENERAL SURGERY Theory summative examination	
Subjects	**Marks**
Orthopaedics	35
Anaesthesia	04
Radiodiagnosis	04
Dentistry	04
Physical Medicine & Rehabilitation	03
Total	**50**
Allied subjects will form a separate section in paper 2 of General Surgery	

Table 5: Blueprint (Topic based) of theory summative examination

Blueprint of Theory Summative Examination (Topic based weightage)						
Topic / System	**Total Weightage**	**MCQ**	**SLEQ**	**SEQ**	**SAQ**	**Total Marks**
1. General Orthopaedics	5%					5
2. Regional Orthopaedics	5%					5
3.Musculoskeletal injuries – General Principles	5%					5
4. Regional Injuries of Upper limb	5%					5
5. Regional injuries of Lower Limb	5%					5
6.Regional injuries of Spline	5%					5
7. AETCOM (5 marks per paper)	5%					5
Total						35

Note: 1. SLEQ : 1 question – 10 mark each = 10 marks
2. SEQ : 2 Questions - 5 Marks each = 10 marks
3. SAQ: 5 Questions - 3 Marks each = 15 marks
Total: 35 marks

d. Practical Summative Examination Format

- Orthopedics is an allied subject of General Surgery

Practical Summative Examination Format		Number of cases	Marks allotted for each case	Total (Marks)
Clinical Cases	Long cases	--	--	--
	Short cases OR Case scenarios	2	15	30
		2	15	
Ward Cases		--	--	--
Spotters		--	--	--
Viva-voce			2	5
Instruments and Splinting and X rays			3	
TOTAL				35

19. INTEGRATION (HORIZONTAL & VERTICAL)

INTEGRATION					
Sl. no	Competency Number	Competency Detail	Nesting / Sharing / Aligning / Correlation	Integration with departments	
				Horizontal	Vertical
1.					
2.					

20. RECOMMENDED BOOKS

a. Text books

- Appleys System of orthopaedics and fractures
- Adams's Outline of orthopaedics
- Adam's Outline of fractures : including joint injuries

b. Reference books

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

c. Journals

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DERMATOLOGY, VENEREOLOGY & LEPROSY

21. 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.

22. OBJECTIVES

a. Knowledge

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

b. Skills

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

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

c. Attitude & 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. Motivate patients with chronic diseases to adhere to the line of management as outlined by the health care provider.
iii. Follow the treatment guidelines and counsel the patient to adhere and comply.
iv. Respect patient's privacy.
v. Maintain confidentiality.
vi. Work in a healthcare team efficiently while respecting all its members.
vii. Continually strive for updating his/her own knowledge and skill.
viii. To treat prolonged illnesses with regular follow-up, monitoring, proper counseling and refer to higher centers if required.

d. 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.

TEACHING HOURS

THEORY	Teaching-Learning Method	No. of Hours
A	Large Group Teaching (LGT)	**00**
B	Small Group Teaching (SGT)	**00**
C	Self Directed Learning (SDL)	**00**
Total		**00**

PRACTICAL	Teaching-Learning Method	No. of Weeks
A	Bedside Clinics	**2**
Total		**2**

OTHERS	Teaching-Learning Method	No. of Hours
A	AETCOM	5 hrs
B	Pandemic Module	-
C	Skill Lab	-
Total		5 hrs

23. COURSE CONTENT

a. Theory

i. Large Group Teaching (LGT)

Large Group Teaching (LGT) Theory Classes		
Sl. No	**Topic: Competency (Number & Details)**	**No. of Hours**
NOT APPLICABLE		

ii. Small Group Teaching (SGT)

Small Group Teaching (SGT) Tutorials / Seminar / Group discussions etc.		
Sl. No	**Topic: Competency (Number & Details)**	**No. of Hours**
NOT APPLICABLE		

iii. Self Directed Learning (SDL)

Self Directed Learning (SDL)		
Sl. No	**Topic: Competency (Number & Details)**	**No. of Hours**
NOT APPLICABLE		

b. Practical

i. Bedside Clinics

Bedside Clinics			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
DR1.2	Identify and grade the various common types of acne	Bedside Clinics	
DR2.1	Identify and differentiate vitiligo from other causes of hypopigmented	Bedside Clinics	
DR3.1	Identify and distinguish psoriatic lesions from other causes	Bedside Clinics	
DR3.2	Demonstrate the grattage test	Bedside Clinics	
DR4.1	Identify and distinguish lichen planus lesions from other causes	Bedside Clinics	
DR14.2	Identify and distinguish urticarial from other skin lesions	Bedside Clinics	
DR14.3	Demonstrate dermographism	Bedside Clinics	
DR14.4	Identify and distinguish angioedema from other skin lesions	Bedside Clinics	
DR16.1	Identify and distinguish skin lesions of SLE	Bedside Clinics	
DR16.2	Identify and distinguish Raynaud's phenomenon	Bedside Clinics	
PE31.4	Identify Atopic dermatitis and manage	Bedside Clinics	

ii. Clinical Clerkship / Evening Clinics

Clinical Clerkship / Evening Clinics			
Day	**Topic**	**Suggested TL Method**	**No. of Hours**
Monday	10-11am OPD case presentation 5-6 pm admitted cases presentation		
Tuesday	10-11am OPD case presentation Post admission rounds presentation		
Wednesday	10-11am OPD case presentation Follow up of cases		
Thursday	10-11am OPD case presentation Follow up of cases		
Friday	10-11am OPD case presentation Case sheet writing		
Saturday	Discharge paper writing		

iii. Skill Lab - NA

Skill Lab		
Sl. No	**Topic: Competency (Number & Details)**	**No. of Hours**
1		
2		
3		
4		
5		

iv. Certifiable Skills : There is no certifiable skill for the academic year

Certifiable Skills			
Sl. No	**Skills that require certification**	**Criteria for certification**	**No. of Attempts**
1			
2			
3			
4			
5			

c. AETCOM Module

AETCOM Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1	Module 4.5-Case studies in ethics: the doctor-industry relationship		5hrs
2			
3			
4			
5			

d. Pandemic Module

There is No pandemic module for the academic year

Pandemic Module			
Sl. No	**Topic: Competency (Number & Details)**	**Suggested TL Method**	**No. of Hours**
1			
2			
3			
4			
5			

24. SCHEME OF EXAMINATION

a. Eligibility Criteria

- Students must secure at least 50% 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 Summative / University examination.
- Student should have a minimum of 75% attendance in Theory and 80% in Practical classes to be eligible to appear for Summative / University examination.
- Student must have completed the required certifiable competencies and completed the log book

b. Internal Assessment

i. Theory

- Multiple (a minimum of two) Internal Assessments (IA) will be conducted.
- The last IA will be conducted as Preliminary examination, which will mirror the university exams in marks and pattern.
- The final IA marks will be derived based on the table given below.
- The blueprint of all the IAs is also given in the table below.

Table 1: Theory Internal Assessment

There are no theory IAs in MBBS 3-2 for the subject of Dermatology, Venereology & Leprosy

Table 2: Blueprint of IA (Theory)

Not applicable

6.2.8. Practical

- Each clinical posting will include and End of Posting (EoP) test.
- The marks allotted for each EoP is tabulated below.
- The preliminary examination will include a practical examination which will mirror the university examination in marks and pattern.

Table 3: Practical Internal Assessment

DEPARTMENT OF DERMATOLOGY, VENEREOLOGY & LEPROSY Integrated phase-wise Internal Assessment					
PRACTICAL		**Phase 2 2wk posting**	**Phase 3-1 2wk posting**	**Phase 3-2 2wk posting**	**Final Total**
EOP	Clinical skills assessment (OSCE/ Mini-CEX/ Case presentation/ AETCOM)	15	15	20	
	Viva-voce (may include AETCOM)	10	10	10	
Others	Formative assessment	05	--	05	
	Logbook/ Record book	--	05	05	
Total		**30**	**30**	**40**	**100**
FINAL PRACTICAL IA MARKS = 20 (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 & AETCOM module) **Dermatology, Venereology & Leprosy IA marks will be added to General Medicine**					

ALLIED SUBJECTS OF GENERAL MEDICINE **Final IA calculation**	
Subjects	**Marks**
Psychiatry	15
Dermatology, Venereology and Leprosy	20
Respiratory Medicine including Tuberculosis	10
Casualty	05
Total	**50**

6.2.9. Formative (Day to Day) Assessment

- Day to Day assessment will be performed and it will be added to the IA marks of theory as well as practical (as in tables above)
- Formative (Day to Day) assessment will be calculated based on attendance, maintenance of record books, log books, journals, case sheets etc
- Any assignments, presentations, seminars or other academic activity of note shall also reflect in the formative assessment

6.2.10. Remedial Assessment

- Remedial Examinations will be conducted as per the policy of Shri Dharmasthala Manjunatheshwara University and will be based on NMC guidelines

c. Summative Assessment

i. Pass Criteria

- A candidate shall obtain 50% marks in university conducted examination separately in Theory and Practical (practical includes: practical/ clinical and viva voce) in order to be declared as passed in that subject.
- In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass in the said subject.

ii. Theory Summative Examination Format

- Third Professional Part II - (Final Professional) examination shall be at the end of training (14 months including 2 months of electives) in the subjects of General Medicine, General Surgery, Obstetrics & Gynecology and Pediatrics.
- The disciplines of Orthopedics, Anesthesiology, Dentistry and Radiodiagnosis will constitute 25% of the total theory marks incorporated as a separate section in paper II of General Surgery.
- The disciplines of Psychiatry and Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis will constitute 25% of the total theory marks in General Medicine incorporated as a separate section in paper II of General Medicine.

iii. Blueprint of Theory Summative Examination

- Dermatology, Venereology and Leprosy (DVL) is an allied subject of General Medicine
- It will be included in the Paper 2 of General Medicine as a separate section along with Respiratory Medicine including Tuberculosis, Psychiatry and Casualty

Table 4: Division of allied subjects of General Medicine in theory summative examination

ALLIED SUBJECTS OF GENERAL MEDICINE Theory summative examination	
Subjects	**Marks**
Psychiatry	20
Dermatology, Venereology and Leprosy	15
Respiratory Medicine including Tuberculosis	15
Casualty	00
Total	**50**
Allied subjects will form a separate section in paper 2 of General Medicine	

Table 5: Blueprint (Topic based) of theory summative examination

Blueprint of Theory Summative Examination (Topic based weightage)						
Topic / System	**Total Weightage**	**MCQ**	**SLEQ**	**SEQ**	**SAQ**	**Total Marks**
1.						
2.						
3.						
4.						
5.						
6.						
7. AETCOM (5 marks per paper)						
Total						

iv. Practical Summative Examination Format

Practical Summative Examination Format		Number of cases	Marks allotted for each case	Total (Marks)
Clinical Cases	Long cases			
	Short cases			
	Case scenarios			
Ward Cases				
Spotters				
Viva-voce				
Others				
TOTAL				

25. INTEGRATION (HORIZONTAL & VERTICAL)

INTEGRATION					
Sl. no	Competency Number	Competency Detail	Nesting / Sharing / Aligning / Correlation	Integration with departments	
				Horizontal	Vertical
1.	16.1	Identify and distinguish skin lesions of SLE		Pathology	Medicine
2.	16.2	Identify and distinguish Raynaud's phenomenon		Pathology	Medicine
3.					
4.					
5.					
6.					

26. RECOMMENDED BOOKS

a. Text books

- Three text books with authors and editions

b. Reference books

- Up to seven reference books

c. **Journals**

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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