

## 1.3.1. List of Courses that integrate Cross-Cutting issues

Serial No.	Programme name	Name of the Department (Subject)	Courses		Cross Cutting
			No	Content of the course	
1	DM	Clinical Immunology & Rheumatology	1	Basic Sciences related to the subject	Gender equality Human Values Professional Ethics Environment and Sustainability
2			Practice of Clinical Immunology & Rheumatology		
3			Practice of Clinical Immunology & Rheumatology including therapeutics, allied specialities		
4			Recent Advances in Clinical Immunology & Rheumatology		
5		Gastroenterology	1	Basic Gastroenterology Sciences	
6			Clinical Gastroenterology		
7			Clinical and investigative Gastroenterology		
8			Recent advances in Gastroenterology		
9		Pediatric Gastroenterology	1	Basic Ped Gastroenterology Sciences	
10			Clinical Ped Gastroenterology		
11			Clinical and investigative Ped Gastroenterology		
12			Recent advances in Ped Gastroenterology		
13		Clinical Hematology	1	Basic and applied haematology	
14			Laboratory Haematology		
15			Clinical Haematology		
16			Recent Advances in Haematology		
17		Medical Genetics	1	Basic Genetics	
18			Clinical Genetics		
19			Applied and Laboratory Genetics		
20			Recent evidences in Medical Genetics		
21		Critical Care Medicine	1	Basic medical sciences related to CCM	
22			Clinical-etiology, Diagnosis, Treatment of diseases related to CCM		
23			Procedures, Interventions, Ethics, Research Methods		
24			Recent advances		
25		Endocrinology	1	Basic Science of Endocrinology	
26			Clinical Endocrinology and diagnosis of endocrinology and metabolism disorder		
27			Therapeutic aspect of endocrinology and metabolism and laboratory technology		
28			Laboratory and Experimental Endocrinology		
29		Cardiology	1	Basic Sciences as applied to Cardiology	
30			Clinical Cardiology		
31			Laboratory Testing		
32			Recent advances		
33	DM	Neurology	1	Basic Sciences of Neurology	
34			Clinical Neurology -1		
35			Clinical Neurology -2		
36			Recent Advances in Neurology		

37	Nephrology	1	Basic Sciences in Nephrology	Gender equality Human Values Professional Ethics Environment and Sustainability	
38		2	Clinical Nephrology		
39		3	Dialysis, Transplantation, Nephro-urology		
40		4	Recent advances in Nephrology		
41	Pulmonary Medicine	1	Basic sciences as applied to pulmonary medicine		
42		2	Clinical pulmonary medicine -1		
43		3	Clinical pulmonary medicine -2		
44		4	Recent advances in pulmonary medicine and lung transplantation		
45	Neonatology	1	Basic sciences as applied to neonatology and perinatology		
46		2	Core neonatology		
47		3	Neonatology and allied specialities		
48		4	Recent advances in neonatology		
49	Surgical Gastroenterology	1	Basic sciences as applied to surgical gastroenterology	Gender equality Human Values Professional Ethics Environment and Sustainability	
50		2	Clinical and operative surgical gastroenterology		
51		3	Surgical gastroenterology including transplantation and minimal access surgery		
52		4	Recent advances in surgical gastroenterology		
53	Endocrine Surgery	1	Basic science of endocrine and breast surgery		
54		2	Clinical endocrine surgery Part 1		
55		3	Clinical endocrine surgery Part II		
56		4	Recent advances in Endocrine and breast surgery		
57	MCh Cardio-vascular & Thoracic Surgery	1	Cardiac Surgery (thoracic surgery, vascular surgery)		
58		2	Adult Cardiac Surgery		
59		3	Critical Care		
60		4	Cardiovascular engineering, transplant and circulatory support, recent advances in cardiovascular and thoracic surgery		
61	Neurosurgery	1	Basic sciences of central nervous system		
62		2	Applied clinical neurosurgery		
63		3	Advanced clinical and operative neurosurgery		
64		4	Recent advances in neurosurgery		
65	Pediatric Surgery	1	Basic sciences in Paediatric surgery, Trauma and Transplantation		Gender equality Human Values Professional Ethics Environment and Sustainability
66		2	Regional paediatric surgery, paediatric onco surgery		
67		3	Regional paediatric surgery		
68		4	Recent advances in Paediatric Surgery		
69	MCh Plastic & Reconstructive Surgery	1	General principles and basic sciences relevant to plastic and reconstructive surgery		
70		2	Clinical Part 1		
71		3	Clinical Part 2		
72		4	Recent advances in plastic and reconstructive surgery		

73	Urology	1	Basic sciences of urinary tract system	
74		2	Applied clinical urology	
75		3	Advanced clinical and operative urology	
76		4	Recent advances in urology	
77	Anesthesiology	1	Basic sciences as applied to Anaesthesiology	Gender equality Human Values Professional Ethics Environment and Sustainability
78		2	Practice of Anaesthesiology	
79		3	Anaesthesia in relation to subspecialities/super specialities	
80		4	Intensive Care Medicine, Pain Medicine, Recent advances	
81	Emergency Medicine	1	Basic Medical Sciences, General Emergency Medicine, Disaster preparedness	
82		2	Infectious diseases, Critical Care , Paediatrics, Toxicology	
83		3	Respiratory Medicine ,Emergencies, Surgical procedures	
84		4	Nephrology, Endocrinology, Haematology, Occupational Diseases, Recent advances	
85	Nuclear Medicine	1	Nuclear Physics	
86		2	Diagnostic Nuclear Medicine	
87		3	Therapeutic uses of radionuclide	
88		4	Recent advances in Nuclear Medicine	
89	Microbiology	1	General Microbiology and Immunology	
90		2	Clinical/Systemic Microbiology I	
91		3	Clinical/Systemic Microbiology II	
92		4	Applied Microbiology & Recent Advances	
93	Radiotherapy	1	Principles of radiotherapy allied specialities	
94		2	Related specialities: Surgical oncology and medical oncology	
95		3	Clinical management of Tumours	
96		4	Recent advances and special topics	
97	Pathology	1	Basic sciences including general pathology, immunopathology, genetics clinical pathology, tropical pathology and applied microbiology	
98		2	Systemic pathology including surgical pathology and cytopathology	
99		3	Haematology including transfusion medicine and clinical biochemistry	
100		4	Recent advances in pathology	
101	Transfusion Medicine	1	Basic sciences (immunology, medical genetics, haemostasis, physiology of formed elements of blood )	Gender equality Human Values Professional Ethics Environment and Sustainability
102		2	Immuno haematology/blood group serology/compatibility testing	
103		3	Blood collection/Blood centre/ Component Testing	
104		4	Clinical Transfusion Service	

105			1	Basic sciences related to Radiology	
106		Radiodiagnosis	2	Chest, CVS, CNS, Eye, ENT, Musculoskeletal, Paediatric and Breast	
107			3	Abdominal imaging, GU, Endocrinology, Obstetric and Gynaecology, Interventional radiology	
108			4	Recent advances, Nuclear Medicine , radiology related to clinical specialist	
109	MS		Ophthalmology	1	Basic sciences related to Ophthalmology ,Optics and Refraction
110		2		Clinical Ophthalmology	
111		3		Systemic diseases in relation to Ophthalmology	
112		4		Recent advances in Ophthalmology and Community Ophthalmology	
113		Intensive Care Medicine	1	Basic sciences pertaining to intensive care medicine including pharmacology	Gender equality Human Values Professional Ethics Environment and Sustainability
114			2	Clinical-aetiology, Diagnosis, T; Recent advances treatment of diseases related to intensive care	
115			3	Clinical and recent advances	
116	PDAF	Cardio-vascular & Thoracic Anaesthesia	1	Basic sciences as related to Cardiac Anaesthesia	Gender equality Human Values Professional Ethics Environment and Sustainability
117			2	Clinical aspects as related to cardiac anaesthesia	
118			3	Recent advances in Cardiac Anaesthesia	
119		Organ Transplant Anaesthesia	1	Basic sciences as related to Organ Transplant Anaesthesia	
120			2	Clinical sciences related to organ transplant anaesthesia	
121			3	Recent advances in organ transplant anaesthesia	
122		Neuro Anaesthesia and Neuro Critical Care	1	Basic sciences as related to Neuro anaesthesia	
123			2	Clinical aspects of Neuro anaesthesia	
124			3	Recent advances in Neuro anaesthesia	
125	PDAF	Pain and Palliative Care Medicine	1	Basic sciences as related to pain and palliative care	
126			2	Clinical sciences as related to pain and palliative care	
127			3	Recent advances in pain and palliative care	
128		Apheresis Technology & Blood Component Therapy	1	Basic sciences such as immunology, genetics pertinent to blood components, apheresis, instrumentation, automation, computerization and record, legal, ethical and administrative aspect	
129			2	Application of blood component in clinical practice, donor apheresis and therapeutic plasma exchange, good practice , recent advances	
130		Breast Surgery	1	Basic sciences as applied to breast	
131			2	Clinical mastology	
132			1	Basic sciences related to genetics	

133	PDCC	Clinical Molecular Genetics & Genomics	2	Applied genetics and recent advances	Gender equality Human Values Professional Ethics Environment and Sustainability
134		Critical Care Medicine	1	Basic sciences	
135			2	Clinical sciences	
136		Correlative Imaging	1	Basic sciences experiment	
137			2	Clinical experiments	
138		Radionuclide Therapy	1	Basic sciences related to radionuclide therapy	
139			2	Therapeutic and recent advances in radionuclide therapy	
140		Resuscitative Emergency Medicine	1	Basic sciences of emergency medicine	
141			2	Systemic medicine and recent advances of all organ systems	
142		Hemato-Oncology	1	Basic haemato-oncology	
143			2	Applied and recent advances in haemato-oncology	
144		Pediatric Hematology	1	Basic Paediatric Haematology	
145			2	Applied and recent advances related to paediatric haematology	
146		Hemato-Pathology	1	Basic haemato-pathology	
147		2	Applied haemato pathology		
148	Infectious Disease	1	General aspects of infectious diseases and basic sciences		
149		2	Recent advances in diagnosis and management of infectious disease		
150	Maternal and Fetal Medicine	1	Basic sciences as applied to Maternal and Foetal Medicine		
151		2	Applied sciences and recent advances in Maternal and Foetal Medicine		
152	Neonatology	1	Basic aspects of the subject Neonatology		
153		2	Recent advances in Neonatology		
154	Neuro Otology	1	Basic sciences: Principles and practices		
155		2	Recent advances in neuro-otology		
156	Neuro-Ophthalmology	1	Basic sciences: Refraction and optics		
157		2	Systemic diseases and recent advances		
158	Pediatric Endocrinology	1	Basic sciences of paediatrics and endocrinology		
159		2	Clinical aspect, Diagnosis, Recent advances		
160	Pediatric Gastroenterology	1	Basic Sciences		
161		2	Clinical Sciences and recent advances		
162	PDCC	Pediatric Clinical Immunology and Rheumatology	1	Basic sciences related to clinical immunology and rheumatology	Gender equality Human Values Professional Ethics Environment and Sustainability
163			2	Practice of clinical immunology and rheumatology	
164		Renal Pathology	1	Basic sciences of renal pathology	
165			2	Applied and recent advances in renal disorders	
166		Hepato-pathology	1	Basic sciences of hepatobiliary pathology and liver transplant pathology	

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167			2	Applied and recent advances in hepatobiliary disorders	
168		Sleep Medicine	1	Basic aspect of Sleep Medicine	
169			2	Applied and recent advances in Sleep Medicine	
170		Gastro-radiology	1	Basic Sciences	
171			2	Clinical Sciences	
172		Neuro-radiology	1	Basic Sciences	
173			2	Clinical Sciences	
174		Vascular radiology	1	Basic of vascular system, pharmacology	
175	PDCC		2	Intervention of vascular system	
176		Medical Bio- technology (Hematology)	1	Biochemistry, Genetics, Molecular biology, Basic Human biology, Practical concepts	
177			2	Cell & stem cell biology, Microbiology, Bioanalytic research techniques,	
178			3	Genetic engineering, Diagnostic and therapeutic of human diseases, Genomics, proteomics, research methodology	
179			4	Presentation of research project, Dissertation	
180	M.Sc.	Genetic Counselling	1	Introduction to medical genetics, cytogenetics, chromosomal disorders, principles of genetic counselling	Gender equality Human Values Professional Ethics Environment and Sustainability
181			2	Common presentations in genetics, molecular genetics, genetic counselling,	
182			3	Genetic disorders, pre-natal genetics and fetal medicine	
183			4	Genetic disorder, genomic medicine and research, preventive genetics, dissertation	
184		Medical Laboratory Technology (Medical Virology)	1	Basic microbiology	
185			2	Basic virology	
186			3	Immunology and cellular structure	
187			4	Virology techniques, Epidemiology, Biostatistics	
188		Medical Laboratory Technology- Transfusion Medicine Technology (Earlier it was MSc)	1	Introduction to healthcare delivery system, basic computer and information sciences, patient safety, communication, soft skill	Gender equality Human Values Professional Ethics Environment and Sustainability
189	B.Sc.		2	Medical terminology, record keeping, medical law, ethics,	
190			3	Pathology, microbiology, research methodology, biostatistics	
191			4	Advance research methodology	
192			5	Hemotherapy, blood & components, blood bank equipment, quality control	
193			6	Apheresis, recent advances	



194	M.Sc.	Molecular Medicine & Biotechnology	1	Introduction to molecular medicine, cell & developmental biology, immune response in health and disease, instrumentation, analytical techniques	Gender equality Human Values Professional Ethics Environment and Sustainability
195			2	Omics approaches in molecular medicine, research methodology, ethics, biosafety, IPR, recombinant DNA technology	
196			3	Molecular basis of disease, diagnostic and therapeutics, regenerative medicine,	
197			4	Translation research approaches, dissertation	
198	M.Sc.	Nuclear Medicine Technology (Nuclear Medicine)	1	Fundamentals of radiation physics, Human anatomy, Human physiology, General principles of hospital practice and care	Gender equality Human Values Professional Ethics Environment and Sustainability
199			2	Radio-isotope application, radiation safety, radiation biology, fundamentals of biostatistics and computer application	
200			3	Nuclear medicine imaging, principles of radiological protection, PET cyclotron and other instrumentation	
201			4	Principles of radio pharmacy, recent advances, dissertation	
202	M.Sc.	Radio pharmacy and Molecular Imaging (Nuclear Medicine)	1	Fundamentals of radiation physics, basic radio-chemistry, radio-pharmacy, nuclear medicine instrumentation and imaging	Gender equality Human Values Professional Ethics Environment and Sustainability
203			2	Isotope production, basics of human biology and laboratory animals in biomedical research, PET radiochemistry	
204			3	Nuclear pharmacy-design and regulation, clinical application of radio pharmaceuticals, bioinformatics, IPR, biostatistics	
205			4	Advancement in radio pharmacy, principles of molecular targets and imaging, dissertation	
206	B.Sc.	Bachelor of Physiotherapy (B.P.T)	1	Anatomy I, physiology I, biochemistry, health care delivery system, basic computer and information science, English communication, soft skills, yoga, community orientation and clinical visits	Gender equality Human Values Professional Ethics Environment and Sustainability
207			2	Anatomy II, physiology II, psychology, basic principles of biomechanics, medical terminology and record keeping	
208			3	pathology, microbiology, pharmacology, biomechanics, kinesiology, exercise therapy, therapeutics massage, quality, patient safety	
209			4	Exercise therapy, biophysics, electrotherapy, medical law and ethics	
210			5	Clinical orthopaedics, traumatology, general surgery, burn, plastic surgery, OBG, Paediatrics, Psychiatric, community medicine, Diagnostic imaging	
211			6	Physiotherapy in orthopaedics and sports, clinical neurology and neurosurgery, professionalism, values	

212	B.Sc.		7	Physiotherapy in neurology and psychosomatic disorders, biostatistics, research methodology, health promotion, fitness- clinical cardiovascular and pulmonary	Gender equality Human Values Professional Ethics Environment and Sustainability
213			8	Physiotherapy in cardiovascular, pulmonary, intensive care, community physiotherapy and rehabilitation, evidence based physiotherapy, research project, teaching skills	
214		Operation Theater and Anesthesia Technology	1	Anatomy I, physiology I, biochemistry, health care delivery system, basic computer and information science, English communication, soft skills, yoga, community orientation and clinical visits	
215			2	Anatomy II, physiology II, psychology, medical terminology and record keeping, medical law, ethics, professionalism, OT and anaesthesia technology	
216			3	Clinical microbiology, Medicine and introduction relevant to OT and anaesthesia technology, principles of anaesthesia	
217			4	Biostatistics, clinical pharmacology, basic techniques of anaesthesia	
218			5	Research methodology, basics of surgical procedures, CSSD procedures, advance anaesthesia technique, basic intensive care	
219			6	Advance OT and anaesthesia technology, specialized surgery, including robotics, minimal invasive surgery	
220		Medical Radiology and Imaging Technology (Radio-diagnosis)	1	Anatomy I, physiology I, biochemistry, health care delivery system, basic computer and information science, English communication, soft skills, yoga, community orientation and clinical visits	
221			2	Anatomy II, physiology II, medical terminology and record keeping, medical law, ethics, professionalism, conventional radiography and equipment, physics of imaging equipment	
222			3	Pathology, microbiology, clinical radiography, radiographic and image processing, research methodology and biostatistics	
223			4	Clinical radiography II, quality control, radiation safety, regulatory requirements	
224			5	Physics of new imaging, techniques including patient care, hospital practice and care of patient, contrast and special radiography	
225			6	Physics of advance imaging technology, AERB guidelines, cross-sectional anatomy and physiology, advance imaging technology	



226	B.Sc.	Medical Laboratory Technology (Haematology)	1	Basic computer and information science, introduction to health care delivery, community orientation, quality and patient safety, environmental science, communication, soft skills, anatomy I, physiology I	Gender equality Human Values Professional Ethics Environment and Sustainability
227			2	Anatomy II, Physiology II, medical sociology, medical law and ethics, professionalism and values, medical terminology and record keeping, clinical biochemistry	
228			3	Biostatistics and research, general pathology, microbiology, applied clinical biochemistry, biochemical metabolism, transfusion and blood banking	
229			4	Systematic bacteriology and virology, pathology, immunology, serology, applied clinical biochemistry	
230			5	medical mycology, parasitology, entomology, applied haematology, histopathology, cytopathology, genetic and cytogenetic techniques	
231			6	Laboratory automation and quality control, advance haematology and immunopathology, molecular genetic techniques	
232		Perfusion Technology	1	Basic computer and information science, introduction to health care delivery, community orientation, quality and patient safety, environmental science, communication, soft skills, anatomy I, physiology I	
233			2	Anatomy II, Physiology II, medical sociology, medical law and ethics, professionalism and values, medical terminology and record keeping, laboratory technology related to perfusion technology	
234			3	General pathology, microbiology, applied haematology, biophysics, research methodology and biostatistics I	
235			4	research methodology and biostatistics II, perfusion techniques and technology, medicine and clinical application	
236			5	Paediatric perfusion, neuropsychological assessment, cardiovascular perfusion	
237			6	Mechanical circulatory support, perfusion for heart and lung transplantation	
238		Dialysis Therapy Technology	1	Basic computer and information science, introduction to health care delivery, community orientation, quality and patient safety, environmental science, communication, soft skills, anatomy I, physiology I	
239			2	Anatomy II, Physiology II, medical sociology, medical law and ethics, professionalism and values, medical terminology and record keeping,	

			laboratory technology related to dialysis technology		
240	B.Sc.		3	General pathology, microbiology, applied haematology, biophysics, research methodology and biostatistics I	
241			4	research methodology and biostatistics II, dialysis techniques and technology, medicine and clinical application	
242			5	Paediatric dialysis, neuropsychological assessment, cardiovascular perfusion	
243			6	Mechanical circulatory support, perfusion for heart and lung transplantation	
244		Radiotherapy Technology		1	Basic computer and information science, introduction to health care delivery, community orientation, quality and patient safety, environmental science, communication, soft skills, anatomy I, physiology I, Radiation quantity- units and measurements
245				2	Medical terminology, record keeping, medical law, ethics, professionalism, values, oncology science, radiotherapy techniques, basic radiation physics,
246			3	Pathology, microbiology, oncology science II, radiotherapy equipment I, research methodology	
247			4	Patient care, radiotherapy equipment II, quality assurance, basic radiotherapy physics,	
248			5	Radiation safety, radio biology, biological effects of radiation, MOULD room, special RT techniques, recent advances	
249			6	Radiographic anatomy, Imaging techniques in RT planning, RT treatment delivery and operational issues	
250	B.Sc.		Nursing	1	Applied anatomy, physiology, sociology, psychology, communicative English
251				2	Applied biochemistry, nutrition, dietetics, nursing foundation, informatics and technology
252				3	Applied microbiology, infection control, pharmacology, pathology I, adult health nursing I, BCLS
253				4	Pharmacology II, Pathology II, Adult health nursing II, genetics, professionalism, ethics, palliative care, fundamentals of prescribing
254		5		Child health nursing I, mental health nursing I, community health, nursing education, forensic nursing, Indian laws	
255		6		Child health nursing I, mental health nursing I, Nursing management, leadership, midwifery, OBG nursing I	

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256		7	Community nursing II, midwifery II, OBG II, nursing research and statistics	
257		8	Intensive practical/ residency posting	



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