

Symbiosis Institute of Health Sciences, Pune
Bachelor of Science (Paramedical Technology)
Programme Structure 2023-27

1.	OBJECTIVE	To train students in the technological aspects of medical care with a good scientific foundation. These students will be in a position to competently assist the Physician or Surgeon, especially in high-tech medical procedures & participate in research to cater to the health care industry globally. To add research and			
2.	DURATION (IN MONTHS)	48 (Full Time)			
3.	INTAKE	120			
4.	RESERVATION	I. Within the sanctioned intake	a) SC (In Percentage)	b) ST (In Percentage)	c) Differently abled (In Percentage)
			15	7.5	3
		II. Over and above the sanctioned intake	a) Kashmiri Migrants (In Seats)	b) International Students (In Percentage)	
			2	15	
5.	ELIGIBILITY	Passed Standard XII (10+2) or equivalent examination from any recognised Board with any two of the following subjects: Physics, Chemistry, Biology, Botany, Zoology, Biochemistry, Microbiology, Mathematics OR equivalent as decided by competent authority.			
6.	SELECTION PROCEDURE	Selection based on marks in Qualifying Examination followed by Institute Entrance Examination / Institute Entrance Examination / Entrance Examination at National level [like National Eligibility Entrance Test (NEET) /Maharashtra Common Entrance Test (MHT-CET) /Joint Eligibility Examination (JEE)] or Equivalent examination score + Personal Interaction -Written Ability Test (PIWAT)			
7.	MEDIUM OF INSTRUCTION	English			
8.	PROGRAMME PATTERN	Semester			
9.	COURSE & SPECIALIZATION	As per Annexure A Students can opt for any one of the following specializations after 1st year / Semester 2 1. Cardiac Care/ Cardiology Technology 2. Respiratory Therapy 3. Imaging Sciences/ Radiographic Technology 4. Clinical Laboratory/ Medical Laboratory Technology 5. Dialysis 6. Operation Theatre and Anaesthesia/ Operation Technology 7. Laparoscopy and Endoscopy/ Endoscopy Technology 8. Ophthalmic Sciences/ Optometry Technology 9. Neurosciences Technology/ Neurology Technology			

10.	FEE		Academic Fee p.a	Institute Deposit	Total
		Indian Students	158000	20000	178000
		International Students (USD equivalent to INR)	235000	20000	255000

11.	ASSESSMENT	All internal courses will have 100% component as internal evaluation at the institute level. All external courses will have 40% internal component and 60% external component [University] examination.
12.	STANDARD OF PASSING	The assessment of the student for each examination is done, based on relative performance. Maximum Grade Point (GP) is 10 corresponding to O (Outstanding). For all courses, a student is required to pass both internal and external examination separately with a minimum Grade Point of 4 corresponding to Grade P. Students securing less than 40% absolute marks in each head of passing will be declared FAIL. The University awards a degree to the student who has achieved a minimum CGPA of 4 out of maximum of 10 CGPA for the programme.
13.	AWARD OF DEGREE/ DIPLOMA/ CERTIFICATE	<p>Option 1 Bachelor of Science (Paramedical Technology) will be awarded at the end of semester VI examination by taking into consideration the performance of all semester examinations after obtaining a minimum 4.00 CGPA out of 10 CGPA.</p> <p>Option 2- Bachelor of Science (Paramedical Technology) Honours will be awarded at the end of semester VIII examination by taking into consideration the performance of all semester examinations after obtaining a minimum 4.00 CGPA out of 10 CGPA.</p> <p>Option 3- Bachelor of Science (Paramedical Technology) Honours with research will be awarded at the end of semester VIII examination by taking into consideration the performance of all semester examinations after obtaining a minimum 4.00 CGPA out of 10 CGPA.</p>

Symbiosis Institute of Health Sciences
Bachelor of Science in Paramedical Technology
Programme Structure 2023-27

Annexure A

Semester 1

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4565/New c	401210101	Major	Anatomy I	Core	2	20	30	0	0	50
T4429/New c	401210102	Major	Physiology I	Core	2	20	30	0	0	50
T4946	401210103	Minor	Basic Sciences	Core	2	20	0	0	30	50
T4499/ New c	401210104	Minor	Medical Physics	Core	2	20	30	0	0	50
T4947	401210105	Ability Enhancement	Communication Skills for Allied Health Professionals - Foundation	Core	1	25	0	0	0	25
New	401210106	Ability Enhancement	English Language	Core	2	20	30	0	0	50
T4441/ New c	401210107	Skill Enhancement	Personality Development for Allied Health Professionals - I & II	Core	2	20	0	0	30	50
New	401210108	Skill Enhancement	Critical Thinking	Core	2	20	0	0	30	50
T4433	401210109	Value Added	Computer Skills	Core	1	25	0	0	0	25
T2883/ New c	401210110	Value Added	Core Environmental Studies*	Core	1	25	0	0	0	25
T4432	401210111	Multidisciplinary / Elective	Psychology	Core	1	25	0	0	0	25
T4431	401210112	Multidisciplinary / Elective	Sociology	Core	1	25	0	0	0	25
T4440	401210113	Multidisciplinary / Elective	Applied Mathematics	Core	1	25	0	0	0	25
Total					20	290	120	0	90	500

Semester 2

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
New	401210201	Major	Anatomy II	Core	2	0	0	0	50	50
New	401210202	Major	Physiology II	Core	2	0	0	0	50	50

T4571/ New c	401210203	Minor	Hospital Information System	Core	2	50	0	0	0	50
T4446/ New c	401210204	Minor	Basics of Epidemiology	Core	2	20	30	0	0	50
New	401210205	Ability Enhancement	Marathi Language	Core	2	20	0	0	30	50
T4435/ New c	401210206	Ability Enhancement	Communication Skills for Allied Health Professionals - Advanced	Core	2	20	0	0	30	50
T4567/ New c	401210207	Skill Enhancement	Soft Skills for Allied Health Professionals - I & II	Core	3	40	0	0	35	75
TH4095/ New c	401210208	Value Added	Fitness for Life *	Core	1	25	0	0	0	25
T4439	401210209	Multidisciplinary / Elective	Nutrition & Dietetics	Core	1	25	0	0	0	25
T4444	401210210	Multidisciplinary / Elective	Clinical Nutrition	Core	1	25	0	0	0	25
T6507	401210211	Multidisciplinary / Elective	Introduction to Social Justice	Core	2	50	0	0	0	50
Total					20	275	30	0	195	500

Semester 3

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
TH4093/ New c	401210301	Major	Hospital Practices and Patient Care	Core	4	40	40	aq	20	100
New	401210302	Major	Basic Patient Assessment	Core	1	30	0	0	45	75
T4427	401210303	Major	Medical Ethics and Legal Aspects	Core	1	25	0	0	0	25
T2208	401210304	Minor	Research Methodology	Core	4	40	40	0	20	100
New	401210305	Ability Enhancement	Effective Writing	Core	1	25	0	0	0	25
T6475/ New c	401210306	Skill Enhancement	Creative Writing	Core	2	50	0	0	0	50
T4005/ New c	401210307	Value Added	Integrated Disaster Management *	Core	1	25	0	0	0	25
T6284/ New c	401210308	Value Added	Contemporary India and The World	Core	1	25	0	0	0	25
Total					15	260	80	0	85	425

Cardiac Care/ Cardiology Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4084	401210309	Major	Applied Clinical Sciences (Cardiac Care)	Cardiology Technology	2	20	0	0	30	50
T4955	4012104310	Major	Electrocardiography I	Cardiology Technology	3	30	45	0	0	75
Total					5	50	45	0	30	125

Respiratory Therapy

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4956	401210311	Major	Applied Clinical Sciences (Respiratory Therapy)	Respiratory Therapy	2	20	30	0	0	50
T4452	401210312	Major	Respiratory Therapy Technology- I	Respiratory Therapy	3	30	45	0	0	75
Total					5	50	75	0	0	125

Imaging Sciences/ Radiographic Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4959	401210313	Major	Applied Clinical Sciences & Image Interpretation	Radiographic Technology	2	20	30	0	0	50
T4963/ New c	401210314	Major	Conventional Radiographic Techniques, & Procedures	Radiographic Technology	3	30	45	0	0	75
Total					5	50	75	0	0	125

Clinical Laboratory/ Medical Laboratory Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4964	401210315	Major	Applied Clinical Sciences (Clinical Laboratory)	Medical Laboratory Technology	2	20	30	0	0	50
T4965/ New c	401210316	Major	Haematology	Medical Laboratory Technology	3	20	30	0	25	75
Total					5	50	75	0	25	125

Dialysis Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
New	401210317	Major	Applied Clinical Sciences (Dialysis Technology)	Dialysis Technology	2	20	30	0	0	50
T4136	401210318	Major	Principles of Haemodialysis I & II (2)	Dialysis Technology	3	30	45	0	0	75
Total					5	50	75	0	0	125

Operation Theatre and Anaesthesia/ Operation Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4956	401210319	Major	Applied Clinical Sciences (Operation Technology)	Operation Technology	2	20	30	0	0	50
T4970/ New c	401210320	Major	Fundamentals Concepts and Procedures Related to Operation Theatre	Operation Technology	3	30	45	0	0	75
Total					5	50	75	0	0	125

Laparoscopy and Endoscopy/ Endoscopy Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4956	401210321	Major	Applied Clinical Sciences (Endoscopy Technology)	Endoscopy Technology	2	20	30	0	0	50
T4876/ New c	401210322	Major	Fundamental Concepts and Principles of Endoscopy Techniques	Endoscopy Technology	3	30	25	0	20	75
Total					5	50	55	0	20	125

Ophthalmic Sciences/ Optometry Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4879	401210323	Major	Applied Clinical Sciences (Ophthalmic Sciences)	Optometry Technology	2	20	30	0	0	50
T4881/ New c	401210324	Major	Physical And Physiological Optics	Optometry Technology	3	30	45	0	0	75
Total					5	50	75	0	0	125

Neurosciences Technology/ Neurology Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4883	401210325	Major	Applied Clinical Sciences (Neurosciences)	Neurology Technology	2	20	30	0	0	50
T4886/ New c	401210326	Major	Electroencephalography-I	Neurology Technology	3	30	25	0	20	75
Total					5	50	55	0	20	125

Semester 4

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4948	401210401	Major	Basic Biochemistry	Core	4	40	40	0	20	100
T4949	401210402	Major	Basic Microbiology & Parasitology	Core	4	40	40	0	20	100
T4771	401210403	Value Added	Fitness & Life Management	Core	2	50	0	0	0	50
T4775	401210404	Value Added	Self Defence	Core	1	25	0	0	0	25
T8000/ New c	401210405	Value Added	Service Learning	Core	2	25	0	0	0	25
Total					13	180	80	0	40	300

Generic Elective Courses Group

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T6604	401210406	Multidisciplinary / Elective	Political Science	Core	2	50	0	0	0	50
SWM01	401210407	Multidisciplinary / Elective	Swayam Course	Core	2	50	0	0	0	50
T6477	401210408	Multidisciplinary / Elective	Theater	Core	2	50	0	0	0	50
T6491	401210409	Multidisciplinary / Elective	Cyber Law	Core	1	25	0	0	0	25
T6487	401210410	Multidisciplinary / Elective	Film Appreciation	Core	1	25	0	0	0	25
T6476	401210411	Multidisciplinary / Elective	World Music	Core	1	25	0	0	0	25
Total					4	75	0	0	0	75

Cardiac Care/ Cardiology Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4935	401210412	Major	Echocardiography Techniques	Cardiology Technology	3	30	45	0	0	75
Total					3	30	45	0	0	75
Respiratory Therapy										
Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4974	401210413	Major	Respiratory Therapy Technology II	Respiratory Therapy	3	30	45	0	0	75
Total					3	30	45	0	0	75
Imaging Sciences/ Radiographic Technology										
Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4961/ New c	401210414	Major	Fundamentals of Medical Image Processing	Radiographic Technology	3	30	45	0	0	75
Total					3	30	45	0	0	75
Clinical Laboratory/ Medical Laboratory Technology										
Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4937	401210415	Major	General & Clinical Biochemistry	Medical Laboratory Technology	3	30	45	0	0	75
Total					3	30	45	0	0	75
Dialysis Technology										
Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4967	401210416	Major	Theory and Principles of Dialysis	Dialysis Technology	3	30	45	0	0	75
Total					3	30	45	0	0	75
Operation Theatre and Anaesthesia/ Operation Technology										
Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks

T4983	401210417	Major	Procedures Prior & During Anaesthesia	Operation Technology	3	30	45	0	0	75
Total					3	30	45	0	0	75

Laparoscopy and Endoscopy/ Endoscopy Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4887	401210418	Major	Endoscopy Setup & Patient Preparation.	Endoscopy Technology	3	40	35	0	0	75
Total					3	40	35	0	0	75

Ophthalmic Sciences/ Optometry Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4898/ New c	401210419	Major	Ophthalmic Procedures	Optometry Technology	3	30	45	0	0	75
Total					3	30	45	0	0	75

Neurosciences Technology/ Neurology Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4891/ NEW C	401210420	Major	Electroencephalography II	Neurology Technology	3	20	30	0	25	75
Total					3	20	30	0	25	75

Semester 5

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4107	401210501	Major	Basic Pharmacology	Core	2	20	0	0	30	50
T4950	401210502	Major	Pathology	core	4	40	40	0	20	100
T4907/ New c	401210503	Summer Internship	Summer Internship Programme (Healthcare/ Research Organization)	core	4	40	0	0	60	100
Total					10	100	40	0	110	250

Cardiac Care/ Cardiology Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4973	401210504	Major	Introduction to Medical Devices (Cardiac Care)	Cardiac Care	4	40	40	0	20	100
New	401210505	Major	Embryology of Heart	Cardiac Care	2	20	30	0	0	50
T4954/ New c	401210506	Major	Cardiovascular Diseases	Cardiology Technology	2	20	30	0	0	50
T4953/ New c	401210507	Major	Cardiac Pharmacology	Cardiology Technology	2	20	30	0	0	50
Total					10	100	130	0	20	250

Respiratory Therapy

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4975	401210508	Major	Introduction to medical devices & Instruments (Respiratory Therapy)	Respiratory Therapy	2	20	0	0	30	50
T4819	401210509	Major	Cardiopulmonary Diseases	Respiratory Therapy	4	40	40	0	20	100
T4512	401210510	Major	Cardiopulmonary Pharmacology	Respiratory Therapy	2	20	30	0	0	50
T4986	401210511	Major	Mechanical Ventilation I	Respiratory Therapy	2	20	30	0	0	50
Total					10	100	100	0	50	250

Radiographic Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4963/ New c	401210512	Major	Radiation Physics & Protection – Basic (3)	Radiographic Technology	1	25	0	0	0	25
T4962	401210513	Major	Physics & Instrumentation of Xray & USG	Radiographic Technology	2	20	30	0	0	50
T4976	401210514	Major	Physics and Instrumentation of Computed Tomography	Radiographic Technology	3	30	45	0	0	75
T4977	401210515	Major	Operations of Computed Tomography	Radiographic Technology	4	40	40	0	20	100
Total					10	115	115	0	20	250

Clinical Laboratory/ Medical Laboratory Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
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T4978/ New c	401210516	Major	Introduction to Equipment & Instruments (Clinical Laboratory)	Medical Laboratory Technology	4	40	40	0	20	100
T4471	401210517	Major	General and Clinical Pathology	Medical Laboratory Technology	4	40	40	0	20	100
T4981	401210518	Major	Bacteriology	Medical Laboratory Technology	2	20	0	0	30	50
Total					10	100	80	0	70	250

Dialysis Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4980	401210519	Major	Introduction to Medical Devices and Instruments (Dialysis)	Dialysis Technology	4	40	40	0	20	100
T4968	401210520	Major	Renal Diseases , Disease Management	Dialysis Technology	4	40	40	0	20	100
	401210521	Major	Renal Pharmacology	Dialysis Technology	2	20	30	0	0	50
Total					10	100	110	0	40	250

Operation Theatre and Anaesthesia/ Operation Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4984	401210522	Major	Introduction to medical Devices and Instruments (Operation Theatre & Anaesthesia)	Operation Theatre & Anaesthesia Technology	3	30	45	0	0	75
T4969/ New c	401210523	Major	Instrument Trays for Surgical Procedure	Operation Technology	3	30	45	0	0	75
T4995/ New c	401210524	Major	Assistance in Perioperative Complications	Operation Technology	4	30	30	0	40	100
Total					10	90	120	0	40	250

Laparoscopy and Endoscopy/ Endoscopy Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4877	401210525	Major	Introduction to Endoscopy Instruments	Endoscopy Technology	4	40	40	0	20	100
T4929	401210526	Major	OT setup for Laparoscopy &	Endoscopy Technology	3	30	45	0	20	75

			Patient preparation (1c added)							
T4878/ New c	401210527	Major	Care of Specific Endoscope Procedures	Endoscopy Technology	3	30	45	0	20	75
Total					10	100	130	0	60	250

Ophthalmic Sciences/ Optometry Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4890	401210528	Major	Introduction to Medical Devices & Instruments (Ophthalmic Sciences)	Optometry Technology	4	40	40	0	20	100
T4889/ New c	401210529	Major	Ocular Pharmacy And Pharmacology	Optometry Technology	4	40	40	0	20	100
T4882	401210530	Major	Ocular Microbiology	Optometry Technology	2	20	0	0	30	50
Total					10	100	80	0	70	250

Neurosciences Technology/ Neurology Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4893	401210531	Major	Introduction to Medical Devices & Instruments (Neurosciences)	Neurology Technology	4	40	40	0	20	100
T4885	401210532	Major	Neuro Pharmacology	Neurology Technology	2	20	30	0	0	50
T4900	401210533	Major	Neurobiology	Neurology Technology	4	40	40	0	20	100
Total					10	100	110	0	40	250

Semester 6

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4451	401210601	Major	Basic Life Support	core	2	25	0	0	25	50
T4806/ New c	401210602	Dissertation	Project	core	2	25	0	0	25	50
T2560	401210603	Multidisciplinary	Principles and Practices of Management	Core	2	20	30	0	0	50
Total					6	70	30	0	50	150

Cardiac Care/ Cardiology Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4972	401210604	Major	Electrocardiography II	Cardiac Care	4	40	40	0	20	100
T4798	401210605	Major	Clinical Cardiology	Cardiac Care	4	40	40	0	20	100
New	401210708	Major	Electrophysiology Procedure	Cardiology Technology	2	20	0	0	30	50
T4997	401210607	Major	Cardiac Catheterization Basic	Cardiac Care	4	40	40	0	20	100
Total					14	140	120	0	90	350

Respiratory Therapy

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4089	401210608	Major	Applied Management in Respiratory Therapy Unit	Respiratory Therapy	2	20	30	0	0	50
T4987	401210609	Major	Mechanical Ventilation II	Respiratory Therapy	4	40	40	0	20	100
T4999/ New c	401210610	Major	Pulmonary Rehabilitation and Home Care	Respiratory Therapy	4	40	40	0	20	100
T4177	401210611	Major	Infection Control in Respiratory Care	Respiratory Therapy	4	40	40	0	20	100
Total					14	140	150	0	60	350

Imaging Sciences/ Radiographic Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4989	401210612	Major	Operations of Magnetic Resonance Imaging	Radiographic Technology	4	40	40	0	20	100
TH4003	401210613	Major	Interventional Radiology	Radiographic Technology	4	40	40	0	20	100
T4988/ New c	401210615	Major	Physics and Instrumentation of Magnetic Resonance Imaging	Radiographic Technology	3	30	45	0	20	75
TH4002/ New c	401210616	Major	Cross Sectional Anatomy	Radiographic Technology	3	30	45	0	20	75
Total					14	140	170	0	80	350

Clinical Laboratory/ Medical Laboratory Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
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TH4006	401210617	Major	Basics of Diagnostic Immunology	Medical Laboratory Technology	2	20	30	0	0	50
T4991	401210618	Major	Blood Banking- Basic	Medical Laboratory Technology	4	40	40	0	20	100
T4982/ New c	401210619	Major	Diagnostic Parasitology	Medical Laboratory Technology	2	20	30	0	0	50
T4990	401210620	Major	Diagnostic Microbiology - Basic	Medical Laboratory Technology	2	20	30	0	0	50
TH4092	401210621	Major	Histopathology & Cytology	Medical Laboratory Technology	4	40	40	0	20	100
Total					14	140	170	0	40	350

Dialysis Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4993/ New c	401210622	Major	Water Treatment in Dialysis	Dialysis Technology	3	30	45	0	20	75
T4992	401210623	Major	Principles of Peritoneal Dialysis & Other Procedures	Dialysis Technology	4	40	40	0	20	100
TH4010	401210624	Major	Safety Practices and Patient Care in Dialysis	Dialysis Technology	3	30	45	0	20	75
TH4008	401210625	Major	Quality Assurance	Dialysis Technology	2	20	30	0	0	50
TH4009	40210626	Major	Common Investigations in Dialysis	Dialysis Technology	2	20	0	0	30	50
Total					14	140	160	0	90	350

Operation Theatre and Anaesthesia/ Operation Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4994	401210627	Major	Advanced Sterilization Techniques and Infection control in Operation Theatre	Operation Technology	4	40	40	0	20	100
TH4011	401210628	Major	Assistance in Speciality Surgical Procedures	Operation Technology	4	40	40	0	20	100
T4971	401210629	Major	Pre-Operative Preparation & Anaesthetic Management of Surgical Procedures (1c added)	Operation Technology	4	40	40	0	20	100
TH4012	401210630	Major	Post-Operative Care	Operation Technology	2	20	30	0	0	50

Total						14	140	150	0	60	350
Laparoscopy and Endoscopy/ Endoscopy Technology											
Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks	
T4888	401210631	Major	Introduction to Laparoscopy Instruments	Endoscopy Technology	4	40	40	0	20	100	
T4895/ New c	401210632	Major	Infection control & Sterilization in Laparoscopy set up	Endoscopy Technology	4	25	0	0	25	50	
T4894	401210633	Major	Basic principles of Laparoscopy Technique	Endoscopy Technology	4	40	40	0	20	100	
T4928/ New c	401210634	Major	Laparoscopy Procedures & prerequisites	Endoscopy Technology	2	30	30	0	40	100	
Total						14	135	110	105	350	
Ophthalmic Sciences/ Optometry Technology											
Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks	
T4880/ New c	401210635	Major	Ocular Biochemistry	Optometry Technology	4	40	40	0	20	100	
T4897	401210636	Major	Investigative Ophthalmology & Refraction	Optometry Technology	4	40	40	0	20	100	
T4930	401210637	Major	Ophthalmic Visual Diagnostic Equipment, Vision Aids & Dispense	Optometry Technology	4	40	40	0	20	100	
T4931/ New c	401210638	Major	Ophthalmic Diagnostic & Minor Surgical Procedure	Optometry Technology	2	20	30	0	0	50	
Total						14	140	150	0	60	350
Neurosciences Technology/ Neurology Technology											
Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks	
T4932	401210639	Major	Balance Training	Neurology Technology	2	20	0	0	30	50	
T4933	401210640	Major	Repositioning & Testing	Neurology Technology	4	40	40	0	25	100	
T4892	401210641	Major	Vestibular Myography	Neurology Technology	4	40	40	0	25	100	
T4926	401210642	Major	Nerve Conduction Study	Neurology Technology	2	20	30	0	0	50	

T4884	401210643	Major	Neurological Diseases	Neurology Technology	2	20	0	0	30	50
Total					14	140	110	0	110	350

Semester 7

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4570/ New c	401210701	Minor	Quality in Healthcare	core	3	20	30	0	25	75
T4501/ New c	401210702	Minor	Emerging Trends in Allied Health Care	core	2	50	0	0	0	50
T4004	401210703	Minor	Biostatistics	core	2	20	30	0	0	50
TH4163	401210704	Minor	Telemedicine Technology	Core	2	20	30	0	0	50
New	401210705	Minor	Artificial Intelligence in Healthcare	core	2	20	30	0	0	50
T4575/ New c	401210706	Minor	Research Proposal Writing	core	2	25	0	0	25	50
Total					13	155	120	0	50	325

Cardiac Care/ Cardiology Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4996	401210707	Major	Advanced Cardiac Life Support (ACLS)	Cardiology Technology	4	40	40	0	20	100
T4998/ New c	401210708	Major	Nuclear Medicine Technology	Cardiology Technology	1	25	0	0	0	25
T4089	401210709	Major	Applied Management in Cardiac Care Unit	Cardiology Technology	2	20	30	0	0	50
Total					7	85	70	0	20	175

Respiratory Therapy

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4089	401210710	Major	Applied Management in Respiratory Therapy Unit	Respiratory Therapy	2	20	30	0	0	50
T4996	401210707	Major	Advanced Cardiac Life Support (ACLS)	Respiratory Therapy	4	40	40	0	20	100
TH4001/ New c	401210712	Major	Neonatal and Paediatric Respiratory Care – Basic	Respiratory Therapy	1	25	0	0	0	25
Total					7	85	70	0	20	175

Imaging Sciences/ Radiographic Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4094	401210713	Major	Applied Management in Radiology Unit	Radiographic Technology	2	20	0	0	30	50
T4998/ New c	401210708	Major	Nuclear Medicine Technology	Radiographic Technology	1	25	0	0	0	25
TH4004 / New c	401210715	Major	Latest Developments in Imaging	Radiographic Technology	4	40	40	0	20	100
Total					7	85	40	0	50	175

Clinical Laboratory/ Medical Laboratory Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4543	401210716	Major	Applied Management in Clinical Laboratory	Medical Laboratory Technology	2	20	0	0	30	50
TH4005	401210717	Major	Enzymology and Advanced Techniques	Medical Laboratory Technology	3	30	45	0	0	75
TH4007	401210718	Major	Virology and Mycology - Basic	Medical Laboratory Technology	2	20	0	0	30	50
Total					7	70	45	0	60	175

Dialysis Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4551	401210719	Major	Applied Management in Renal Care Unit	Dialysis Technology	2	20	0	0	30	50
T4996	401210707	Major	Advanced Cardiac Life Support (ACLS)	Dialysis Technology	4	40	40	0	20	100
New	401210721	Major	Plasmapheresis & CRRT	Dialysis Technology	1	25	0	0	0	25
Total					7	85	40	0	50	175

Operation Theatre and Anaesthesia/ Operation Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4561	401210722	Major	Applied Management in OT and Anaesthesia Unit	Operation Technology	2	20	30	0	0	50
T4996	401210707	Major	Advanced Cardiac Life Support (ACLS)	Operation Technology	4	40	40	0	20	100

T4861/ New c	401210724	Major	Safety Measures in Operation Theatre	Operation Technology	1	25	0	0	0	25
Total					7	85	70	0	20	175

Laparoscopy and Endoscopy/ Endoscopy Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4896	401210725	Major	Applied Management in Laparoscopy & Endoscopy Unit	Endoscopy Technology	2	25	0	0	25	50
T4996	401210707	Major	Advanced Cardiac Life Support (ACLS)	Endoscopy Technology	4	40	40	0	20	100
		New- Major	Post operative care	Endoscopy Technology	1	25	0	0	0	25
Total					7	90	40	0	45	175

Ophthalmic Sciences/ Optometry Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4899	401210727	Major	Applied Management in Ophthalmic Unit	Optometry Technology	2	20	0	0	30	50
T4996	401210707	Major	Advanced Cardiac Life Support (ACLS)	Optometry Technology	4	40	40	0	20	100
New	401210729	Major	Advanced Ophthalmic Procedure	Optometry Technology	1	25	0	0	0	25
Total					7	85	40	0	50	175

Neurosciences Technology/ Neurology Technology

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
T4927	401210730	Major	Applied Management in Neurosciences Unit	Neurology Technology	2	20	0	0	30	50
T4996	401210707	Major	Advanced Cardiac Life Support (ACLS)	Neurology Technology	4	40	40	0	20	100
T4934	401210732	Major	Nanotechnology in Neurosciences	Neurology Technology	1	25	0	0	0	25
Total					7	85	40	0	50	175

Semester 8

Catalog Course Code	Course Code	Category	Course Title	Specialization	Credits	Internal Marks	External Marks	Internal Practical Marks	External Practical Marks	Total Marks
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New	401210801	Major	Research Grant Writing	core	2	30	20	0	0	50
New	401210802	Major	Data Analysis & Management	core	4	40	40	0	20	100
New	401210803	Minor	Scientific Writing	core	2	50	0	0	0	50
New	401210804	Minor	Patent & Intellectual Property Rights	core	2	30	20	0	0	50
New	401210805	Dissertation	Dissertation-II	core	10	100	0	0	150	250
Total					20	250	80	0	170	500

*** Subject to Change**