MGM SCHOOL OF BIOMEDICAL SCIENCES, NAVI MUMBAI
(A constituent unit of MGM INSTITUTE OF HEALTH SCIENCES)
(Deemed to be University u/s 3 of UGC Act 1956)
Grade "A^{++}" Accredited by NAAC
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CHOICE BASED CREDIT SYSTEM (CBCS)

(Academic Year 2025 - 26)

Curriculum for

M.Sc. Allied Health Sciences

M.Sc. Medical Dialysis Technology

Semester I & II

DIRECTOR'S MESSAGE

Welcome Message from the Director

Dear Postgraduate Students,

Welcome to **MGM School of Biomedical Sciences (MGMSBS), MGMIHS**, a premier institution dedicated to advancing allied and health sciences education. As you embark on this transformative academic journey, you are joining a community that fosters excellence in research, clinical expertise, and innovation**.**

MGMIHS, accredited with **NAAC 'A^{++}' Grade (CGPA 3.55, 2022)** and recognized as a **Category I Institution by UGC**, offers an ecosystem that nurtures both academic and professional growth. With **NIRF (151-200 rank band) recognition, NABH-accredited hospitals, NABL-accredited diagnostic labs, and JCI accreditation for MGM New Bombay Hospital**, we uphold global benchmarks in education and healthcare.

At MGMSBS, our **15 postgraduate programs** are meticulously designed to align with the National Commission for Allied and Healthcare Professionals **(NCAHP)** standards**,** National Education Policy **(NEP)** 2020**,** and the National Credit Framework **(NCrF).** We have implemented the **Choice-Based Credit System (CBCS)** to provide academic flexibility while ensuring rigorous training in clinical and technical skills**.** Our state-of-the-art research laboratories, digital classrooms, and the Central Research Laboratory (CRL) foster an environment that encourages innovation and evidence-based learning**.**

Postgraduate education at MGMSBS goes beyond theoretical learning—our curriculum integrates **hands-on clinical training, interdisciplinary collaboration, and exposure to real-world healthcare challenges**. We emphasize **research-driven education**, encouraging students to actively participate in **scientific discoveries, publications, and international collaborations**.

Beyond academics, we believe in **holistic development**, with initiatives such as the **AARAMBH Science and Wellness Club**, which promotes **mental well-being, leadership, and professional networking**.

As you step into this **next phase of academic and professional growth**, we encourage you to explore new ideas, engage in impactful research, and contribute meaningfully to the **healthcare ecosystem**. We are confident that your journey at MGMSBS will shape you into **skilled, compassionate, and visionary professionals**, ready to lead in the ever-evolving healthcare landscape.

We look forward to witnessing your achievements and contributions!

Dr. Mansee Thakur
Director, MGM School of Biomedical Sciences
MGM Institute of Health Sciences, Navi Mumbai

ABOUT MGM SCHOOL OF BIOMEDICAL SCIENCES

Mission

To improve the quality of life, both at individual and community levels by imparting quality medical education to tomorrow's doctors and medical scientists and by advancing knowledge in all fields of health sciences though meaningful and ethical research.

Vision

By the year 2022, MGM Institute of Health Sciences aims to be top-ranking Centre of Excellence in Medical Education and Research. Students graduating from the Institute will have the required skills to deliver quality health care to all sections of the society with compassion andbenevolence, without prejudice or discrimination, at an affordable cost. As a research Centre, it shall focus on finding better, safer and affordable ways of diagnosing, treating and preventing diseases. In doing so, it will maintain the highest ethical standards.

About – School of Biomedical Sciences

MGM School of Biomedical Sciences is formed under the aegis of MGM IHS with the vision of offering basic Allied Science and Medical courses for students who aspire to pursue their career in the Allied Health Sciences, teaching as well as research.

School of Biomedical Sciences is dedicated to the providing the highest quality education in basic medical sciences by offering a dynamic study environment with well-equipped labs. The school encompasses 24 courses each with its own distinct, specialized body of knowledge and skill. This includes 8 UG courses and 16 PG courses. The college at its growing years started with mere 100 students has recorded exponential growth and is now a full-fledged educational and research institution with the student strength reaching approximately **800** at present.

Our consistent theme throughout is to encourage students to become engaged, be active learners and to promote medical research so that ultimately they acquire knowledge, skills, and understanding so as to provide well qualified and trained professionals in Allied Health Sciences to improve the quality of life.

As there is increased need to deliver high quality, timely and easily accessible patient care system the collaborative efforts among physicians, nurses and allied health providers become ever more essential for an effective patient care. Thus the role of allied health professionals in ever-evolving medical system is very important in providing high-quality patient care.

Last but by no means least, School of Biomedical Sciences envisions to continuously grow and reform. Reformations are essential to any growing institution as it fulfills our bold aspirations of providing the best for the students, for us to serve long into the future and to get ourselves updated to changing and evolving trends in the health care systems.

Name of the Degree: M.Sc. Medical Dialysis TechnologyDuration of Study:

The duration of the study for M.Sc. Medical Dialysis Technology will be of 2 years.

Eligibility Criteria:

B.Sc. Dialysis Tech: These candidates are by far the most eligible as they have been trained in this very field for 3 years followed by a year of internship.

MBBS

These candidates are exposed to nephrology and dialysis during their course curriculum, albeit for a lesser duration. However, this will give those candidates an opportunity to specialize, who do not want to spend 6 more years through the conventional academic route.

B.Sc. Nursing: These candidates too have been exposed to Nephrology and dialysis during their graduation and hence are eligible.

Medium of Instruction:

English shall be the Medium of Instruction for all the Subjects of study and for examinations.

For any query visit the website: www.mgmsbsnm.edu.in

M.Sc. MEDICAL DIALYSIS TECHNOLOGY

Program Outcome

Program Code	Program Objective
PO1	Nurture the scientific and/or clinical knowledge and skills for development of health carepractices, industrial/ community applications and entrepreneurship.
PO2	Develop the ability of critical thinking to analyze, interpret problems in health care and to findout systematic approach for solution
PO3	Impart decision making capability for handling various circumstances in their respectiveareas
PO4	Demonstrate research skills for planning, designing, implementation and effective utilization of research findings for community.
PO5	Develop an ability to function as an efficient leader as well a team player in multidisciplinarysectors for effective outcomes demonstrating managerial skills
PO6	Demonstrate an effective written and oral communication skills to communicate effectively inhealth care sector, industries, academia and research.
PO7	Inculcate code of ethics in professional and social circumstances to execute them in dailypractices and research in respective areas of specialization
PO8	Develop lifelong learning attitude and values for enhancement of professional and social skills foran overall development

Program Specific Outcome

Program Code	Program Objective
PO1	The primary goal of the Master of Science in Medical Dialysis Technology program is to prepare accomplished professionals in Dialysis Technology with a specific emphasis on clinical skills and technical knowledge along with professional research.
PO2	Students will acquire the research-based knowledge and procedural skills necessary to deliver a highstandard of care to the patients with chronic kidney disease requiring renal replacement therapy.
PO3	This course involves all aspects of care for patients undergoing chronic hemodialysis.
PO4	Overall goal of this training is to foster the student's development into an independent care provider and researcher in the field of dialysis.
PO5	The program intends for its post graduates to contribute to a new generation of academic dialysis professional equipped to address the challenging problems in renal replacement therapy

Course Outcomes
Semester I

MMDT 101 T & MMDT 104 P	Anatomy (Nephroanatomy & Histology)	Mapped PO	Teaching-Learning Methodology	Assessment Tools
CO1	Apply to clinical scenarios the concepts and knowledge of the general terminology, cell structure and function, histology, gross anatomy, and physiology of urinary system	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO2	Students will be able to describe and analyze tissue types and organ structure & know the topics of fundamental anatomy and histology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO3	Students will know and be able to describe the urinary system of the human body, will be able to describe their structure, location, will be able to explain the main regularities of functions.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
MMDT 102 T & MMDT 105 P	**Physiology (Nephrophysiology)**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**
CO1	To understand the functions of important physiological systems including the urinary systems.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO2	Students will acquire knowledge on physiology related to Nephrology & Physiology applied to dialysis.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
MMDT 103 T	**Nephrogenetics & Pharmacology**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**
CO1	This course gives a general knowledge and application part of the drugs or medicines used for renal problems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation, Assignments, Case study presentation

				Journal club, Skill assessment, MCQ
CO2	Knowledge of renal, cardio vascular, respiratory, Central Nervous System & corticosteroids to be able to manage renal patients under supervision of a nephrologists and assist a nephrologists	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CC 001 T & CC 001 P	**Research Methodology & Biostatistics (Core Course)**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**
CO1	Student will be able to understand develop statistical models, research designs with the understating of background theory of various commonly used statistical techniques as well as analysis, interpretation & reporting of results and use of statistical software.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Station exercise/OSCE/OSPE, Viva-voce, Assignment, MCQ
MMDT 106 CP	**MMDT Directed Clinical Education-I**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**
CO1	Build a robust theoretical foundation, enabling students to understand healthcare practices, disease management, and patient care, thereby empowering them to make informed decisions and adapt to evolving medical technologies.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment
CO2	Emphasize hands-on training, ensuring proficiency in clinical procedures, diagnostic techniques, and the use of advanced medical equipment. This practical exposure will bridge the gap between theory and practice, enhancing students; confidence and competence in delivering quality patient care.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment
CO3	focus on developing professionalism, empathy, ethical conduct, teamwork, and communication skills—key traits for holistic patient care and effective collaboration in interdisciplinary healthcare teams.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment

SEMESTER II

MMDT 107 T	Aetio-Pathology of Renal Disease	Mapped PO	Teaching-Learning Methodology	Assessment Tools
CO1	The scope of this course is to provide overall information of the pathology, structural abnormalities and symptoms of kidney diseases.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO2	To have knowledge of common medications used in dialysis, its administration & side effects	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO3	To know total patient care during dialysis & dietary management.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation,
MMDT 108 T & MMDT 111 P	**Clinical Nephrology**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**
CO1	The students are provided with adequate knowledge of patient assessment in renal diseases.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO2	The students are trained to apply knowledge of laboratory & imaging investigations for diagnosing renal diseases.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
MMDT 109 T & MMDT 112 P	**Dialysis Equipment**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**

CO1	To understand the principle of working, construction, operation, uses, cleaning, handling, care, common trouble shooting, maintenance etc of the hemodialysis & peritoneal dialysis equipment	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO2	To conduct routine equipment management procedures including preventative maintenance, faultfinding, calibration and verifying of equipment prior to clinical use.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
MMDT 110 T	**Water Treatment**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**
CO1	Different types of water source and methods of treatment employed by water supply companies	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation,
CO2	Ground sources and surface sources and the classification of contaminants	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO3	Potable water regulations	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation,
CO4	Necessity to treat potable water for use in dialysis.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO5	Need for chemical limits	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation,
CO6	Evaluation of feed water quality, including hardness	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO7	Monitoring & disinfection of water treatment	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation,
MMDT 113 CP	**MMDT Directed Clinical Education II**	**Mapped PO**	**Teaching-Learning**	**Assessment Tools**

			Methodology	
CO1	Build a robust theoretical foundation, enabling students to understand healthcare practices, disease management, and patient care, thereby empowering them to make informed decisions and adapt to evolving medical technologies.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment
CO2	Emphasize hands-on training, ensuring proficiency in clinical procedures, diagnostic techniques, and the use of advanced medical equipment. This practical exposure will bridge the gap between theory and practice, enhancing students; confidence and competence in delivering quality patient care.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment
CO3	Focus on developing professionalism, empathy, ethical conduct, teamwork, and communication skills—key traits for holistic patient care and effective collaboration in interdisciplinary healthcare teams.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Practical, Demonstration, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Practical exam, Station Exercise/OSCE/OSPE, Viva-voce, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment
SEC 001 T	**Innovation and Entrepreneurship**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**
CO1	Students will grasp the concepts of innovation, its ecosystem, and the role of various stakeholders such as government policies, startups, and innovation hubs.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO2	Cultivating an entrepreneurial mindset and leadership qualities necessary for driving innovation and leading ventures	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO3	Understanding the intersection of technology and innovation and leveraging emerging technologies for entrepreneurial	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Practical exam, Log book, Seminar presentation,

	ventures.			Assignments, Case study presentation Journal club, Skill assessment, MCQ
SEC 002 T	**One Health (NPTEL)**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**
CO1	A comprehensive understanding of One Health's role in global health challenges, emphasizing interconnectedness among human, animal, and environmental health.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO2	Topics include research ethics, disease surveillance, and successes in controlling emerging infectious diseases.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ
CO3	Students explore disease emergence, transmission, antimicrobial resistance, and food safety, gaining insights into effective public health strategies.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Assignment, Case Study, PBL, Seminar	Internal assessment, University exam, Theory exam, Log book, Seminar presentation, Assignments, Case study presentation Journal club, Skill assessment, MCQ

OUTLINE OF COURSE CURRICULUM

M.Sc. Medical Dialysis Technology

Semester I

Code No.	Core Course	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total (hrs.)	Internal Assement (IA)	Semester End Exam (SEE)	Total
Discipline Specific Core Theory														
MMDT 101 T	Anatomy (Nephroanatomy & Histology)	3	-	-	-	3	45	-	-	-	45	20	80	100
MMDT 102 T	Physiology (Nephrophysiology)	3	-	-	-	3	45	-	-	-	45	20	80	100
MMDT 103 T	Nephrogenetics & Pharmacology	3	-	-	-	3	45	-	-	-	45	20	80	100
CC 001 T	Research Methodology & Biostatistics (Core Course)	3	-	-	-	3	45	-	-	-	45	-	50	50
Discipline Specific Core Practicals														
MMDT 104 P	Anatomy (Nephroanatomy & Histology)	-	-	2	-	1	-	-	30	-	30	10	40	50
MMDT 105 P	Physiology (Nephrophysiology)	-	-	2	-	1	-	-	30	-	30	10	40	50
MMDT 106 CP	MMDT Directed Clinical Education - I	-	-	-	15	5	-	-	-	225	225	-	50	50
CC 001 P	Research Methodology & Biostatistics (Core Course)	-	-	4	-	2	-	-	60	-	60	-	50	50
Total		12	0	8	15	21	180	0	120	225	525	80	470	550

OUTLINE OF COURSE CURRICULUM

M.Sc. Medical Dialysis Technology

Semester II

Code No.	Core Course	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total (hrs.)	Internal Assement (IA)	Semester End Exam (SEE)	Total
Discipline Specific Core Theory														
MMDT 107 T	Aetio-Pathology of Renal Disease	3	-	-	-	3	45	-	-	-	45	20	80	100
MMDT 108 T	Clinical Nephrology	3	-	-	-	3	45	-	-	-	45	20	80	100
MMDT 109 T	Dialysis Equipment	3	-	-	-	3	45	-	-	-	45	20	80	100
MMDT 110 T	Water Treatment	2	-	-	-	2	30	-	-	-	30	20	80	100
Discipline Specific Core Practicals														
MMDT 111 P	Clinical Nephrology	-	-	4	-	2	-	-	60	-	60	10	40	50
MMDT 112 P	Dialysis Equipment	-	-	2	-	1	-	-	30	-	30	10	40	50
MMDT 113 CP	MMDT Directed Clinical Education - II	-	-	-	15	5		-	-	225	225	-	50	50
Skill Ehancement Course														
SEC 001 T	Innovation and Entrepreneurship	3	-	-	-	3	45	-	-	-	45	-	50	50
SEC 002 T	One Health (NPTEL)													
Total		14	0	6	15	22	210	0	90	225	525	100	500	600