

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI – 32.
SYLLABUS - M.Sc. CRITICAL CARE TECHNOLOGY
(Post-Graduate Degree Courses under Allied Health Sciences)

From the academic year 2023-2024.	
I Year	
I.Principles of Epidemiology, Research Methodology, Biostatistics and Medical Ethics	130(T)+50(P)= 180 hrs
II. Applied Physiology and Pharmacology Related to Critical Care	
Physiology Related to Critical Care	70(T)+20(P)=90hrs
Pharmacology Related to Critical Care	70(T)+20(P)=90hrs
III. Principles Of Critical Care And Monitoring	
Principles Of Critical Care And Monitoring In ICU including Trouble Shooting (Basic & Advanced)	200(T) +360(P)=560hrs
IV. ICU Administration	
ICU Administration, Logistics, Communication And Management, Biomedical Engineering	200(T)+360(P)=560hrs
II Year	
I. Advanced Critical Care Technology	
Block I Infection and Toxicology in ICU	80(T)+120(P)=200hrs
Block II Respiratory Critical Care	120(T)+120(P)=240hrs

Block III Cardiac Critical Care		120(T)+120(P)=240hrs
Block IV Nephro Critical Care		120(T)+120(P)=240hrs
Block V Neuro Critical Care		120(T)+120(P)=240hrs
II. ICU Therapy		
ICU Therapy and Causes Of Post Surgical Admissions in ICU		160(T)+120(P)=280hrs
I. Principles of Epidemiology, Research Methodology, Biostatistics and Medical Ethics		
UNIT A : Epidemiology	Introduction: Historical aspects and evolution of epidemiology, definitions and concepts in Epidemiology. Natural history of diseases. Approaches in Epidemiology, Descriptive and analytical Epidemiology, disease burden, and measures of risk and death. Epidemiological investigations.	
UNIT B – Research Methodology	Principles of Research study designs, Sampling Methods, Sample size Estimation, Protocol writing and Measures of Association. Introduction to Operations Research	

