

Curriculum for B.Tech Health Engineering program	
Category	Course Names
Foundation Interdisciplinary Courses	Physics for Health Engineers Applied Chemistry for Health Engineering Calculus for Engineers Linear Algebra & Differential Equations Fundamentals of Computing Using Python
Core Courses	Basics of Electrical and Electronics Engineering Digital logic for Medical Systems Medical Biochemistry Biomedical Signals and Systems Analog circuits for Health Systems Principles of Molecular Cell Biology Probability and Biostatistics Control Engineering Microcontroller based Systems for Health Engineers Anatomy and Physiology Biomedical sensors Quantitative Pharmacology and Pathology Biomaterials Medical Instrumentation Biomechanics Biomedical Signal Processing Medical Image Processing and Analysis Principles of Telemedicine and Internet of Medical Things
Department Electives	AR &VR for Health Engineers Embedded Systems for Medical Devices Advanced Medical Device Design
Core Electives	Digital Twins and Virtual Patient Bio fabrication and biomanufacturing Neuro Engineering Medical Robotics Bio microfluidics and organ-on-chip technology Rehabilitation Engineering Bioethics &Regulatory affairs Computational Pathology Clinical Decision Support System Advanced Hospital Management system

	<p>Advanced Hospital Management system Nanomedicine and Nanotechnology Wearable Health Technologies AI in Medical Imaging and Radiomics Quantum Materials for Medical Diagnosis Bio photonics Theragnostic Drug Delivery Systems (Sem-VI) Tissue Engineering and Regenerative Medicine Advanced Medical Implants and Devices Bio MEMs</p>
<p>Skill Enhancement Courses</p>	<p>AI and Machine Learning for Healthcare Health Data Analytics Analytical Reasoning and Aptitude-I Analytical Reasoning and Aptitude-II Career Skills – I Industry Standards and Employability Skills</p>
<p>Ability Enhancement Courses and Value Addition Courses</p>	<p>Art of Listening, Speaking and Reading Skills Environmental Science Effective Writing and Presentation Skills Universal Human Values and Ethics Problem Solving Skills Co-Curricular Activities Creativity and Critical Thinking Skills Co-Curricular Activities</p>