Typical Course Outcomes

Sr. No.	Academic Year	Course Name	NBA Code	CO No.	CO Statements
1	SE 18-19	Basics of Human Physiology	C232	C232.1	Students will be able to understand the structure and function of cell, the action potential and muscle physiology.
				C232.2	Students will be able to distinguish the different anatomical parts of cardiovascular and respiratory system. Understand the physiology of heart, and other organs of cardiovascular system, concept of Blood pressure and use of ECG. Understand the exchange in gases taking place in body and use of spirometer.
				C232.3	Students will be able to know the composition of blood, blood cells with their functions, basics of cell counting, blood grouping and coagulation of blood.
				C232.4	Students will be able to distinguish different organs of digestive and urinary system. Understand the process of digestion, secretions and their functions. Understand the process of urine formation and micturition.
				C232.5	Students will be able to understand the anatomy of nervous system, working of different parts of brain, parasympathetic and sympathetic nervous system, reflex arc and reflex action. Distinguish different parts of eyes and ear, their structure and function. Understand the hearing mechanism and image formation on the retina. Understand the use of ophthalmoscope and design of hearing aid.
				C232.6	Students will be able to understand the different parts of male and female reproductive system with their working, action of sex hormones. To know all the endocrine glands with their secretion and function, and control action.

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2	SE 18-19	Biomedical Transducers and Measuring Instruments	C242	C242.1	Student will be able to explain different parts of instrumentation system with their properties
				C242.2	Student will be able to compare different types of voltage measuring instruments and its construction, working principle and applications
				C242.3	Student will be able to describe displacement, force, and pressure transducers
				C242.4	Student will be able to list different types of temperature transducers
				C242.5	Student will be able to explain different types of electrodes, its construction and working principle
				C242.6	Student will be able to describe different types of chemical and biosensors
3	TE 19-20	Analog and Digital Circuit Design	C352	C352.1	Students will be able to understand various waveform generation IC's and their applications and use it in projects
				C352.2	Students will be able to apply the knowledge of various special function IC's and special purpose diodes for designing
				C352.3	Students will be able to design active filters and their application in biomedical field and electronic circuit design
				C352.4	Students will be able to understand power devices like power diode, SCR, DIAC and TRIAC, UJT and power MOSFET's and their applications in industry
				C352.5	Students will be able to apply the knowledge of voltage regulators, power supplies, and switches
				C352.6	Students will be able to understand different types of ac and dc motors and how to select them for project design

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4	TE 19-20	Biomedical Monitoring Equipment	C361	C361.1	Students will be able to interpret various Bioelectrical Signal Recorders and correlate importance of Patient Safety in Medical Devices.
				C361.2	Students will be able to describe importance of Arrhythmia and Patient Monitoring and point out design considerations for point of care devices.
				C361.3	Students will be able to discuss working principles of Audiometers and Hearing Aids.
				C361.4	Students will be able to contrast importance of Foetal and Neonatal Monitoring and explain working principle of its monitoring systems.
				C361.5	Students will be able to interpret different techniques used for measurement of Blood Flow and cardiac Output.
				C361.6	Students will be able to distinguish different techniques used in Biotelemetry and list clinical applications of Telemedicine.
5	BE 20-21	Very Large Scale Integrated System	C472	C472.1	Students will be able to understand hardware description language used to model circuits
				C472.2	Students will be able to implement some basic digital circuits using HDL
				C472.3	Students will be able to analyse the physics of MOS devices
				C472.4	Students will be able to compare the implementation of inverter circuits using N MOS and CMOS devices and noise in these circuits
				C472.5	Students will be able to explain the fabrication technology used in IC fabrication and how system clocking is designed.
				C472.6	Students will be able to apply the design rules and draw layouts for various digital gates
6	BE 20-21	BMDLO8042 Robotics in Medicine	C483	C483.1	Describe direct and inverse kinematics of robots
				C483.2	Analyse work space envelop and trajectory planning for robots
				C483.3	Apply various image processing tools for robotic manipulation
				C483.4	Implement motion planning solutions using various algorithms
				C483.5	Illustrate medical applications of robots