COURSE OUTCOMES
(R 2017)

Branch:M.E.Biomedical Engineering

Course Code: C101 Course Name:Applied mathematics for Medical engineering

C101.1	compute basic objects assocoated with vector spaces and linear transformation
C101.2	solve an algebraic of transcendental equation linear systems of equations using an appro
C101.3	construction of approximate bpokynomial using interpolation methods,finding of the der
C101.4	numerical solution of ordinary differential equations
C101.5	exposing the basic characters features of a queuing system and acquire skills in analysis

Course Code: C102 Course Name:BM5151 Human Anatomy and Physiology

C102.1	Describe basic structural and functional elements of human body.
C102.2	Explain organs and structures involving in system formation and functions
C102.3	Identify all systems in the human body
C102.4	Develope clearly knowlodge about the renal acyions and its functions
C102.5	Infer about the nervus system of humans

Course Code: C103 Course Name:BM5191 Biosignal processing

C103.1	To provide a solid foundation in advanced biomedical signalling and imaging system.
C103.2	it focuses on biomedical signals,proceesing of the signals
C103.3	validate the methods and results for optimization of clinical applications
C103.4	to introduce techniques for automated classification
C103.5	decision making to aid diagnosis

Course Code: C104 Course Name:BM5101 Biomedical sensors and instrumentation

C104.1	Differentiate different bio potentials and its propagations.
C104.2	Illustrate different electrode placement for various physiological recordings
C104.3	Design bio amplifier for various physiological recordings
C104.4	Explain various technique for non-electrical physiogical measurements
C104.5	Demonstrate different biochemical measurement techniques.

Course Code: C105 Course Name:Medical Imaging system

C105.1	to study the production of X-ray and it's application to different medical imaging technic
C105.2	To study the different types of radio diagnostic techniques
C105.3	To study the special imaging techniques used for visualizing the cross section of the bod
C105.4	To study the imaging of soft tissues using ultrasound technique

C105.5	To study the imaging of soft tissues using MRI technique

Course Code: C106 Course Name:BM5072 Biomaterials

C106.1	Analyze different types of Biomaterials and its classification.
C106.2	Compare the different types of metal alloys, ceramics and the characteristics of different
C106.3	Classify the types of polymeric materials and their importance in hard and soft tissue rep
C106.4	Develop a materials that could be used as a tissue replacement implant.
C106.5	Design a materials that could be used for developing artificial organs

Course Code: C107 Course Name: BM5111 Clinical instrumentation laboratory

C107.1	To enable the students to know about the measurement of bioelectric signals
C107.2	To enable the students to know about the recording of bioelectric signals
C107.3	To enable the students to know about the recording of biochemical signals
C107.4	To enable the students to know about the measurement of biochemical signals
C107.5	To study the different preamplifier used for amplifying the Biosignal

Course Code: C108 Course Name: BM5291 Applied medical image processing

C108.1	To develop computational method to analyse the biomedical data
C108.2	To develop computational method algorithm to analyse the biomedical data
C108.3	To understand the fundamental of medical image processing techniques
C108.4	will be able to analyze morphology ,segmentation techniques and implement these imag
C108.5	enable quantities analysis and visualisation of medical images.

Course Code: C109 Course Name: BM5201 Diagnostics and Therapeutic equipment

C109.1	illustrate different medical devices applied in measurement of parameters related to card
C109.2	Discuss the use different medical devices applied in measurement of parameters related
C109.3	Measure signals generated by muscles
C109.4	Explain about cardiac assist devices, its continuous monitoring and transmission
C109.5	Explain about extra corporeal devices and its special diagnostic techniques

Course Code: C110 Course Name: BM5202 Biomechanics

C110.1	Illustrate the mechanics of physiological systems.
C110.2	Analyze the biomechanical systems
C110.3	Evaluate orthopaedic applications.
C110.4	Demonstrate an understanding of kinetic concepts including inertia, force, torque, and in
C110.5	Inspect the major factors involved in the angular kinematics of human movement.

Course Code: C111 Course Name: MX5091 Medical ethics and standards

C111.1	Legal and professional guidelines for the health professions
C111.2	Public duties and consent
C111.3	Guidelines to obtainedical standard in hospital
C111.4	students will be able to know about the legal and ethical principles
C111.5	application of these principles in health care setting and gain knowledge about the medic

Course Code: C112Course Name:BM5211 Bio signal and image processing laboratory

C112.1	To study the various aspects of analysis of Biosignal and medical images
C112.2	To develop algorithm for denoising,power spectral density and classification of bio signa
C112.3	To develop image processing algorithms for segmentation
C112.4	To develop image processing algorithms for features extraction
C112.5	To develop image processing algorithms for classification

Course Code: C201 Course Name:BM5391 Rehabilitation Engineering

C201.1	Gain adequate knowledge about the needs of rehabilitations and its future development
C201.2	Interpret in depth knowledge about Engineering Concepts in Sensory & Motor rehabilita
C201.3	Apply the different types of Therapeutic Exercise Technique to benefit the society
C201.4	Design and apply different types Hearing aids, visual aids and their application in biome
C201.5	Gain in-depth knowledge about different types of models of Hand and arm replacement.