

COURSE TITLE	TE142458: Biomedical Engineering Credits: 2 ELECTIVE COURSE
LEARNING OBJECTIVES	To have a capability of developing modeling and analysis of biomedical system, i.e., neural engineering, welfare engineering, and rehabilitation engineering.
COMPETENCY	<ul style="list-style-type: none"> • To have an understanding of biomedical engineering disciplines. • To have a skill in utilizing mathematical tools for developing a modeling system and analysis of biomedical system, i.e., neural engineering, welfare engineering & rehabilitation engineering.
SUBJECTS	<ul style="list-style-type: none"> • Biomedical engineering disciplines • Biomedical system analysis and modeling: nervous system • Musculo-skeletal system • Cardiac system • Biomechanics, welfare engineering, rehabilitation engineering, journal review.
MAIN REFERENCES	<ul style="list-style-type: none"> • J Bronzino (Ed), <u>Biomedical Engineering Handbook</u>, IEEE Press. • Mark L Latash, <u>Neurophysiological basis of movement</u>, Human Kinetics, USA, 1998. • Roger M Enoka, <u>Neuromechanics of human movement</u>, Human Kinetics, USA, 3rd Ed, 2002. • RB Northrop, <u>Introduction to Dynamic Modeling of Neuro-sensory Systems</u>, CRC Press, 2001.
OPTIONAL REFERENCES	Journals: Ann of BME, IEEE Trans BME, IEEE Trans Rehabil Eng, etc.
PREREQUISITE	-