Sample Brief Course Description

Course title	Acquisition and Computer Processing of Biomedical Data
Course code	BME 201
College	Engineering
Department / Program	Biomedical Engineering
Year/ Level	3/8th
Course Type	A. ☐ University ☐ College ▉ Department ☐ Others b. ▉ Required ☐ Elective
Credited Hours	4
Contact Hours	(LT: 2, LB: 4, TR: 0)
Pre-requisites (if any)	ECE 201
Co-requisites (if any)	---
Course description	Signal Sampling and Quantization, Digital Signals and Systems, Discrete Fourier Transform and Signal Spectrum, The z-Transform, IIR Digital Filters, Design of FIR Filters: using Window Techniques, Realization of FIR filter Using Direct Form I, Realization of FIR filter Using Direct Form II, Analysis of biomedical signals.
Course Main Objectives	To impart knowledge on 1. Signal processing fundamentals. 2. Filter design and its applications. **3.** Analyzing bio signals using bio signal processing methods
Learning Outcomes	**Knowledge and Skills:--** 1. Describe the fundamentals of signal processing . 2. Identify the effect of IIR Digital filter design 3. Illustrate the various applications of IIR filter **Skills:---** 1. Discuss about the FIR Filter design and applications 2. Show the various methods to analyze biosignals 3. Explain the biosignal processing concepts for real time applications **Values:---** 1. Communicate effectively and write lab report.

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