



Elective course

“Biomedical Instrumentation “

2016-2017

I. Why should you choose this course ?

Since the advent of stethoscope as first instrument used in Medical field to facilitate diagnostic approach, everyday newer instruments are added which are used for clinical diagnostic, therapeutic or monitoring purpose apart from research. As the design of instrument is to be engineers, they need to be briefed about the needs and what is to be measured or how the machine should function. Without the basic understanding of fundamentals of Biomedical instrumentation, it will be difficult for both clinician and engineer to design new instrument to for better outcome in patient care.

II. Teaching modalities

The taught component includes lectures, presentations, Practical and assignment. Assignments and presentation are required to be a group work.

III. learning objectives

- Understand the principles of Biomedical instrumentations and types of instruments
- Identify the components of some commonly used instruments and their application in Medical field.

IV. Course program

1. Introduction to Biomedical instrumentation
2. Measurement systems
3. Monitoring instruments
4. Diagnostic instruments
5. Therapeutic instruments
6. Research instruments
7. Practical related to one example of instrument

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