**Course Objectives:** To understand the concepts of Biomechanics, to enable to apply biomechanics for rehabilitation

**Introduction:** Introduction to Biomechanics, Movements of the body, Skeletal System, Naming characteristics that describe muscle features, Muscular system, Regional anatomical kinesiology.

Scope of Mechanics in Medicine: Orthopedics, Cardiology, Exercise Physiology, Surgery, Biomechanics in Orthopedics: Principles, Introduction to the structure and mechanics of the musculoskeletal system, Application of mechanics to bone, Tendon, Ligaments and other biological materials, Definition of biological tissue and orthopaedic device mechanics.


**Active Prostheses:** Active above knee prostheses, Myoelectric hand and arm prostheses: Different types, Block diagram, Signal flow diagram and functions.

**Minor Project:** Nil

**Course learning outcome (CLO):** After the completion of the course the students will be able to

1. Use Orthopedics, Cardiology, Exercise Physiology, Surgery, Biomechanics in Orthopedics Engineer rehabilitation engineering anthropometry
   Use sensory rehabilitation engineering concepts.
   Use orthopedic prosthetics and orthotics in rehabilitation
   Handle applications of active prostheses.
**Recommended Books:**


**Evaluation Scheme:**

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<th>S.No</th>
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