



Sample Brief Course Description

Course title	Medical Robotics Design
Course code	BME 330
College	Engineering
Department / Program	Biomedical Engineering
Year/ Level	4/12th
Course Type	<p>A.</p> <p><input type="checkbox"/> University</p> <p><input type="checkbox"/> College</p> <p><input checked="" type="checkbox"/> Department</p> <p><input type="checkbox"/> Others</p> <p>b.</p> <p><input checked="" type="checkbox"/> Required</p> <p><input type="checkbox"/> Elective</p>
Credited Hours	4
Contact Hours	(LT:3, LB: 2, TR: 0)
Pre-requisites (if any)	ECE 345
Co-requisites (if any)	---
Course description	Topics include fundamental of Robotics, Grippers, introduction to medical robotics, Localization and Tracking, control modes Robot Programming language, Rehabilitation and Medical Robotics Design.
Course Main Objectives	<ol style="list-style-type: none">1. Provide knowledge on the application of robotics in the field of health care.2. Overview of the sensor requirements for localization and tracking in medical applications.



	3. Understand the design aspects of medical robots.
Learning Outcomes	Knowledge and Understanding: <ol style="list-style-type: none">1. Describe the types of medical robots and the concepts of navigation and motion replication.2. Discuss about the sensors used for localization and tracking.3. Summarize the applications of surgical robotics.
	Skills:--- <ol style="list-style-type: none">1. Analyze the concept of Artificial Intelligence in Robots, Various Types of Robots Programming and Applications.2. Outline the concepts in Rehabilitation of limbs and brain machine interface.3. Analyze the design characteristics, methodology and technological choices for medical robots.
	Values:--- <ol style="list-style-type: none">1. Communicate effectively on a team.