



Sample Brief Course Description

Course title	Biophysics for Engineering
Course code	MPHYS 266
College	Engineering
Department / Program	Biomedical Engineering
Year/ Level	3/5
Course Type	A. <input type="checkbox"/> University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Others b. <input checked="" type="checkbox"/> Required <input type="checkbox"/> Elective
Credited Hours	3
Contact Hours	(LT:2, LB:2, TR:0)
Pre-requisites (if any)	MATH 103T PHYS 103
Co-requisites (if any)	---
Course description	The course includes Biomechanics, Fluid mechanics and their application in biology, Bioelectricity, Biomagnetism, Ionizing radiation and its biological effect, Thermodynamics and Bioacoustics.
Course Main Objectives	1. Integrate the knowledge gained in physics to study biological processes. 2. Consolidate the basic grounding in the core topics of biophysics.



	3. Prepare students for further studies in the field of biomedical applications of biophysics.
Learning Outcomes	Knowledge and Understanding: 1. Understand the physics controlling the living systems. 2. Identify sound wave and its properties.
	Skills: 1. Formulate physics to explain processes in living organism. 2. Analyze the relation between physical concepts and their applications on living things. 3. Compare between different scans of the body using Ultrasound picture.
	Values: 1. Communicate effectively through teamwork.
References	1- Physics in Biology and Medicine: Paul David ovits, Elsevier Inc., 2008. 2- Biophysics An Introduction: Roland Glaser, Springer Berlin Heidelberg Pub., 2012