



# Course Specifications

<b>Course Title:</b>	PHYSICS FOR MEDICAL PURPOSES
<b>Course Code:</b>	PPHS125
<b>Program:</b>	Common first year
<b>Department:</b>	Common first year
<b>College:</b>	Deanship of Common first year
<b>Institution:</b>	Majma'ah university

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## A. Course Identification

<b>1. Credit hours:</b> 2
<b>2. Course type</b>
a. University <input checked="" type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
<b>3. Level/year at which this course is offered:</b> 1 <sup>st</sup> level, First semester , Second semester
<b>4. Pre-requisites for this course (if any):</b> None
<b>5. Co-requisites for this course (if any):</b> None

### 6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	%66.6
2	Blended		
3	E-learning		
4	Correspondence		
5	Other	15	%33.3

### 7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
<b>Contact Hours</b>		
1	Lecture	30
2	Laboratory/Studio	15
3	Tutorial	
4	Others (specify)	
	<b>Total</b>	45
<b>Other Learning Hours*</b>		
1	Study	
2	Assignments	
3		
4	Projects/Research Essays/Theses	
5	Others (specify)	
	<b>Total</b>	

\* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

## B. Course Objectives and Learning Outcomes

**1. Course Description :** This course is an introductory course for the fundamental principles of physics . The student will be studying the main concepts

**2. Course Main Objective:** The main purpose of this course is to provide the student with the fundamentals and basic physical concepts which are directly related to the medical sciences

### 3. Course Learning Outcomes

CLOs		Aligned PLOs
<b>1</b>	<b>Knowledge:</b>	
1.1	Recognize the importance of physics in daily life	
1.2	Recognize the importance of the role of physics in Science and Technology.	
1.3	Develop skills for understanding and interpreting of physical phenomena	
1.4	Develop working skills for solving different physics problems.	
<b>2</b>	<b>Skills :</b>	
2.1	Use the physics laboratory to apply what they learn...	
2.2		
2.3		
2...		
<b>3</b>	<b>Competence:</b>	
3.1	Use internet for searching certain electronic journals regarding topics of the	
3.2	Prepare and present certain topics during the semester, look out for certain issues in the course	
3.3		
3...		

## C. Course Content

No	List of Topics	Contact Hours
1	<b>Unit 1: Introduction to physics , Units and Measurements</b>	9
2	<b>Unit 2: Mechanics</b>	9
3	<b>Unit 3: Heat and Properties of Matter</b>	9
4	<b>Unit 4: Light and Optics</b>	9
5	<b>Unit 5: Modern Physics</b>	9
...		
<b>Total</b>		45

## D. Teaching and Assessment

### 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	<b>Knowledge</b>		
1.1	Recognize the importance of physics in daily life.	Group discussion, lecture, team work learning, and worksheets	Continuous feedback, oral, Quizzes, and written exams
1.2	Recognize the importance of the role of physics in Science and Technology.	Group discussion, lecture, team work learning, and worksheets	Continuous feedback, oral, Quizzes, and written exams
1.3	Develop skills for understanding and interpreting of physical phenomena.	Group discussion, lecture, team work learning, and worksheets	Continuous feedback, oral, Quizzes, and written exams
1.4	Develop working skills for solving different physics problems.	Group discussion, lecture, team work learning, and worksheets	Continuous feedback, oral, Quizzes, and written exams
2.0	<b>Skills</b>		
2.1	Use the physics laboratory to apply what they learn	Group discussion, lecture, team work learning, and worksheets	quizzes , participation , written exams
2.2			
...			
3.0	<b>Competence</b>		
3.1	Use internet for searching certain electronic journals regarding topics of the course.	Research activities, assignments.	Assignments, participation
3.2	Prepare and present certain topics during the semester, look out for certain issues in the course.	Research activities, assignments.	Assignments, participation
...			

### 2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Midterm exam 1	7	20%
2	Midterm exam 2	12	20%
3	Quizzes and homework	During the term	10%
4	Lab exam	16 <sup>th</sup> week	10%
5	Final Assessment exam	17 <sup>th</sup> week	40%

\*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

## E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice : 4 hours are schedule as office hour per week.

## F. Learning Resources and Facilities

### 1. Learning Resources

<b>Required Textbooks</b>	<b>INTRODUCTION TO PHYSICS:</b> Copyright 2016, ISBN: 978-1-78449-328-8
<b>Essential References Materials</b>	<a href="http://www.academicpub.org/jbap/">www.academicpub.org/jbap/</a>
<b>Electronic Materials</b>	<a href="http://science.pppst.com/physics.html">http://science.pppst.com/physics.html</a> <a href="http://physwiki.ucdavis.edu">http://physwiki.ucdavis.edu</a> <a href="http://www.physics.org">http://www.physics.org</a>
<b>Other Learning Materials</b>	

### 2. Facilities Required

Item	Resources
<b>Accommodation</b> (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms with LCD projectors and 20 seats
<b>Technology Resources</b> (AV, data show, Smart Board, software, etc.)	The classroom must be equipped with smart or active board
<b>Other Resources</b> (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	laboratory equipment physics (x-ray detector)

## G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course Evaluation Questionnaire at the end of the term	students	Indirect
Daily log for students comments and observations	Instructor	direct
Peer Review evaluation of course' content, format, and teaching strategies	Instructor	direct
External reviewers of the course annually	Control committee	Indirect

**Evaluation areas** (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

**Evaluators** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

## H. Specification Approval Data

<b>Council / Committee</b>	
<b>Reference No.</b>	
<b>Date</b>	