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|  | **Mutah University**  **Detailed Syllabus Form** | Description: C:\Users\lamasat.lamasat-PC\Pictures\Picture1.png |

**First :** Course Information**:**

|  |  |
| --- | --- |
| * Course Number: 0302100 | * Course Title: Medical Physics |
| * Credit Hours: 2 | * College: Science |
| * Pre-requisite non | * Department: Physics |
| * Instructor:Prof Dr. Mohammad Al-Share' | * Semester & Academic Year: first 2016/2017 |
| * the time of the lecture: Sunday and Tuesday 9-10 and 10-11 | * Office Hours:Monday 12-1, Tuesday 11-12 and Wednesday 11-12 |

**Second :** General Course Description

**................................................................................................................................................**The course will cover some fundamental physical concepts such as units, one dimensional motion, two dimensional motion, Newton's laws, work, energy and power, Temperature And The Behavior Of Gases, The Mechanics Of Nonviscous Fluids, Viscous Fluid Flow & Cohesive Forces In Liquids, Electric Forces, Fields And Potentails & Ohm's Law, Wave Properties Of Light, Mirrors, Lenses and Imaging Systems, Radioactivity, Ionization Radiation .

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**Third :** Course Objectives

**St**udents should Know some fundamental physical concepts such as units, one dimensional motion, two dimensional motion, Newton's laws, work, energy and power, Temperature And The Behavior Of Gases, The Mechanics Of Nonviscous Fluids, Viscous Fluid Flow & Cohesive Forces In Liquids, Electric Forces, Fields And Potentails & Ohm's Law, Wave Properties Of Light, Mirrors, Lenses and Imaging Systems, Radioactivity, Ionization Radiation .

**Fourth:** Expected Learning Outcomes

* **S**tudents should have acquire the techniques of solving physics problems
* **.................................................................................................................................... S**tudents should have acquire the techniques to connect the physical concepts together.
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**Fifth :** Course Plan Distribution & Learning Resources

|  |  |  |
| --- | --- | --- |
| **Learning Resources** | **Topics to be Covered** | **Week**  **No.** |
| **Text: Physics/ J. A. Kane & M. M. Sternheim** | Units & Dimensions |  |
| **J. A. Kane & M. M. Sternheim** | One dimensional motion |  |
| **J. A. Kane & M. M. Sternheim** | two dimensional motion |  |
| **J. A. Kane & M. M. Sternheim** | Newton's laws |  |
| **J. A. Kane & M. M. Sternheim** | Work, energy |  |
| **J. A. Kane & M. M. Sternheim** | power |  |
| **J. A. Kane & M. M. Sternheim** | Temperature And The Behavior Of Gases |  |
| **J. A. Kane & M. M. Sternheim** | The Mechanics Of Nonviscous Fluids |  |
| **J. A. Kane & M. M. Sternheim** | Viscous Fluid Flow & Cohesive Forces In Liquids |  |
| **J. A. Kane & M. M. Sternheim** | Electric Forces, Fields And Potentails & Ohm's Law |  |
| **J. A. Kane & M. M. Sternheim** | Wave Properties Of Light, |  |
| **J. A. Kane & M. M. Sternheim** | Mirrors, Lenses and Imaging Systems |  |
| **J. A. Kane & M. M. Sternheim** | Radioactivity |  |
| **J. A. Kane & M. M. Sternheim** | Ionization Radiation |  |
| **J. A. Kane & M. M. Sternheim** | Ionization Radiation |  |
|  | Final Exam |  |

**Sixth :** Teaching Strategies and Methods

|  |  |
| --- | --- |
| **Teaching Strategies and Methods** | No |
| The concepts and laws will be presented to the students | **1** |
| Some examples will be solved and discussed with the students | **2** |
| Some experiments will be performed by the students to demonstrate the laws | **3** |
|  | **4** |
|  | **5** |

**Seventh :** Methods of Assessment

|  |  |  |  |
| --- | --- | --- | --- |
| **Proportion of Final Evaluation** | **Evaluation Methods of** | **Week & Date** | **No.** |
| **25%** | First Exam | **25/10/2016** | **1.** |
| **25%** | Second Exam | 24/11/2016 | **2.** |
| **50%** | Final Exam |  | **3.** |
|  |  |  | **4.** |
|  |  |  | **5** |
|  |  |  | **6** |
| **(100%)** |  | **Total** | |

**Eighth :** Required Textbooks

**- Primary Textbook:**

* **.................................................................................................................................. Physics/ J. A. Kane & M. M. Sternheim..**
* **....................................................................................................................................**
* **....................................................................................................................................**

**-** **Secondary References**

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**Ninth :** General Instructions

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| --- | --- |
| **Additional Notes, Office hours, Incomplete Exams, Reports, Papers, …etc** | **No** |
| Home works | **1** |
|  | **2** |
|  | **3** |
|  | **4** |
|  | **5** |