Republic of Iraq Ministry of Higher Education & Scientific Research



University: Al-Muthanna College: Science Department: Physics Stage: 1st (Second Semester) Lecturer Name: Dr. Ahmed Almurshedi Academic Status: Lecturer Qualification: Ph.D. Place of Work: Department of Physics

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Teaching plan for the semester Form

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| th | the Motion of a charged particle in a uniform and nonuniform magnetic field Student will also study the important laws in magnetism such as Ampere law, lens law and Maxwell equations. In the end of the course the student will learns about the AC circuits, and how to calculate the effective voltage and current values, the phase priority and find the impedance associated with these circuits. Along with above the student will solve different problems in physics related | | | | | | | | |
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| References 1- | Fundamentals of | f Physics, Halliday | & Resnicle, J | ohn Wiley, | , 2011 9th | | | | |
| | edition. | | | | | | | | |
| 2- University Physics by Francis and others. | | | | | | | | | |
| 3- | 3-Website | | | | | | | | |
| Course T | erm Tests | Laboratory | Quizzes | Project | Final | | | | |
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Teaching plan for the semester Form

| Week | Date | Topics Covered | Lab. Experiment Assignments | Notes |
|------|-----------|--|--------------------------------|-------|
| 1 | 17/2/2019 | Introduction to Magnetism | - | |
| 2 | 24/2/2019 | Magnetic field Magnetic force | - | |
| 3 | 3/3/2019 | Motion of a charged particle in a uniform magnetic field | - | |
| 4 | 10/3/2019 | Motion of a charged particle in a nonuniform magnetic field | - | |
| 5 | 17/3/2019 | Magnetic force on an electric current | - | |
| 6 | 24/3/2019 | Magnetic field produced by a closed current | - | |
| 7 | 31/3/2019 | Magnetic field of a rectilinear current (Biot-Savart Law) | - | |
| 8 | 7/4/2019 | Magnetic field of a circular current | - | |
| 9 | 14/4/2019 | Magnetic field of moving charge | - | |
| 10 | 21/4/2019 | Amperes Law for the magnetic field Examples on Amperes Law | - | |
| 11 | 28/4/2019 | Magnetic Flux Magnetization Magnetic susceptibility | - | |
| 12 | 5/5/2019 | Faraday's Law Lens's Law Faraday Henry Law | - | |
| 13 | 12/5/2019 | Inductance Self Inductance Mutual Inductance | - | |
| 14 | 19/5/2019 | Transformer | - | |
| 15 | 26/5/2019 | AC circuits | - | |

Instructor Signature:

Dean Signature: