Modern physics2

**Name of Lecturer: Asst. Prof. Dr.Nabil J.AL-Bahnam**

**References:**


- Demtröder, Wolfgang , Atoms, Molecules and Photons An Introduction to Atomic-, Molecular- and Quantum Physics,2010.
- Arthur Beiser - Concepts of Modern Physics: 5th (fifth) Edition ,2002.
- Henry Semat, John R. Albright , Introduction to Atomic and Nuclear Physics , 1972 .

| Delivery Plan (Weekly Syllabus) | |
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| | **Material Covered** |
| **Week 1** | Dalton law-Determination Of Avogadro Number |
| **Week 2** | Bragg Reflection Of X-Ray By Planes |
| **Week 3** | Electronic Structure Of Atoms |
| **Week 4** | Cathode Rays |
| **Week 5** | Measurement Of The Charge |
| **Week 6** | Atomic Model –Atomic Collision |
| **Week 7** | Mid-term Exam |
| **Week 8** | Integral And Differentia Cross-Sections |
| **Week 9** | Thomson’s Atomic Model |
| **Week 10** | Rutherford  Atomic Model |
| **Week 11** | Bohr Theory Of Hydrogen Atom |
| **Week 12** | Vector Model Of The Atom |
| **Week 13** | Spectrum- Hydrogen Spectral Line |
| **Week 14** | Zeeman Effect - Charge Particle Interaction |
| **Week 15** | Spectral Symbols-Stopping Power Theory |