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Fall 9-1-2001

### PHYS 452.01: Quantum Physics of the Atom

Andrew S. Ware

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# Physics 452 - Quantum Physics

## Fall 2001

- LECTURES:** MWF 8:10am - 9:00am, SC 231
- INSTRUCTOR:** Andrew Ware  
Office: SC Bldg. Rm 120, (Tel. No. 243-6221)  
Office Hours: MWF 11am-12pm, T 9-10am, R 1-2pm  
(and by appointment)
- WEBSITE:** [www.physics.umt.edu/phys452/](http://www.physics.umt.edu/phys452/)
- TEXTBOOK:** **Quantum Physics**, S. Gasiorowicz, 2nd Ed. (Wiley, 1996)
- PREREQUISITES:** Phys 341 & Math 251
- HOMEWORK:** Problem assignments (about 1 assignment per week).  
These will be collected and graded.
- TOPICS:** Quantatization (Chp. 1)  
Uncertainty (Chp. 2)  
Schrodinger's Wave Equation (Chps. 3-6)  
Operators and Observables (Chp. 7)  
Angular Momentum (Chps. 9-11)  
Hydrogen Atom (Chp. 12)
- EXAMS:** \* Three 50-minute exams on 9/24, 10/29, and 12/3.  
\* One 2-hour final exam (8:00am - 10:00am, Mo 12/17)
- GRADING:**
- |                 |                  |
|-----------------|------------------|
| 50-minute exams | 45 % (15 % each) |
| Homework        | 30 %             |
| Final exam      | 25 %             |

[This course can be taken for a traditional letter grade (A,B,C,D,F) only]