

## Physics 215: Introduction to quantum physics

Section A01, Spring 2010

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**Website for lecture notes and assignments:** <http://www.astro.uvic.ca/~jwillis/teaching/teaching.html>

**Lectures:** Elliot 062, Monday and Thursday 8.30-10.00am.

**Office hours:** Monday 2.00pm – 4.00pm.

**Course text:** *Modern physics for scientists and engineers* (3<sup>rd</sup> Edition) by Thornton and Rex.  
Note that the 2<sup>nd</sup> Edition of this text would be an acceptable alternative.

### Course outline:

Topic	Description	Thornton & Rex
1	The experimental basis of quantum theory	Chapter 3
2	The structure of the atom	Chapter 4
3	Wave and particle properties of matter and radiation	Chapter 5
4	The Schroedinger wave equation	Chapter 6
5	Quantum tunneling and Simple Harmonic Motion	Chapter 6
6	The Hydrogen atom	Chapter 7

### Course assessment:

Assignments: 10%  
Laboratory: 20%  
Mid-term exam: 25%  
Final exam: 45%

### A minimum grade of 50% in the laboratory component is required to pass the course.

Approximately ten assignments will be issued through the semester. Assignments will typically be due one week after the issue date. Late assignments will be accepted up to 24 hours after the due date (with a 25% grade penalty) at which point solutions will be posted on the web and no more assignments will be accepted. The mid-term exam will take place at 8.30am in room E062 on Thursday 11th February.

Standard Uvic/Physics department grading conversion of numerical scores to letter grades will be followed.

### Use of calculator:

On all examinations the only acceptable calculator is the Sharp EL-510R.

This calculator can be bought in the Bookstore for about \$10.

DO NOT bring any other calculator to examinations.