

**Course:** CHEM 345 Introduction to Quantum Chemistry

**Instructor:** Linda Reven

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**Brief course description:** This course begins with a historical perspective on how quantum mechanics developed to explain a number of puzzling experimental results. The application of quantum mechanics to chemistry will begin with understanding the properties of classical waves followed by solving the model systems for spectroscopy and the electronic structure of molecules: the particle-in-the-box, the harmonic oscillator, the rigid rotor, the H atom and H<sub>2</sub>. The course finishes with an introduction to Computational Chemistry for predicting molecular structures.

**Method of Delivery:**

Recorded content videos with live problem solving/tutorial sessions

**Evaluation Scheme:**

60% 3 online exams Sept 29, Oct 13, Nov. 16

20% In class quizzes (12%) + homework (8%) (12, drop 2)

20% Final take home exam on Computational Chemistry