




New Model Course in Applied Quantum Physics

 Indicates a research-demonstrated benefit

Overview

Resources for teaching introductory quantum mechanics and modern physics with an emphasis on concepts and applications.



Type of Method

Curriculum supplement, Tutorials



Level

Designed for: Intermediate 

Can be adapted for: Teacher Prep Course, Teacher Professional Development, High School, Intro College Calculus-based, Intro College Algebra-based, Intro College Conceptual, Upper-level Undergraduate



Setting

Designed for: Lecture - Small (<30 students), Recitation/Discussion Session, Homework

Can be adapted for: Lecture - Large (30+ students), Studio



Coverage

Many topics with less depth



Topics

Modern / Quantum



Instructor Effort

Medium





Skills

Designed for: Conceptual understanding, Making real-world connections



Research Validation

Based on research into: theories of how students learn , student ideas about specific topics 



Compatible Methods

[Peer Instruction](#), [PhET](#), [JiTT](#), [CGPS](#), [Physlets](#), [SCALE-UP](#), [OSP](#), [Thinking Problems](#), [LA Program](#), [CAE TPS](#), [CU Modern](#), [QuLLTs](#), [PI QM](#), [Tutorials](#), [Clickers](#)



Similar Methods

[ABP Tutorials](#), [CU Modern](#)



Developer(s)

Michael Wittman, Richard Steinberg, and Edward Redish



Website

<http://www.physics.umd.edu/perg/qm/qmcourse/welcome.htm>

Teaching materials

You can download the tutorials, pre-tests, homework, essay questions, exam questions, software, and other handouts from the [New Model Course website](#).

These tutorials have also been published as a book by Wiley as the Activity-Based Tutorials Volume 2. You can order the book from [Wiley](#) or from [Amazon](#).