




Intuitive Quantum Physics (IQP)

 Indicates a research-demonstrated benefit

Overview

Tutorials for a course introducing non-science majors to basic ideas of quantum mechanics, including spectroscopy, simple molecules, and tunneling.



Level

Designed for: Intro College Conceptual 

Can be adapted for: Upper-level Undergraduate, Graduate School



Setting

Designed for: Lecture - Large (30+ students)  , Lab 

Can be adapted for: Lecture - Small (<30 students), Studio



Coverage

Few topics with great depth



Topics

Modern / Quantum



Instructor Effort

High





Resource Needs

TAs / LAs, Advanced lab equipment, Tables for group work





Skills



Designed for: Conceptual understanding  , Making real-world connections  , Metacognition

Can be adapted for: Using multiple representations



Research Validation

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

Demonstrated to improve: conceptual understanding  , beliefs and attitudes 

Studied using: student interviews  , classroom observations 



Compatible Methods

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



Similar Method

None



Developer(s)

Jeffrey T. Morgan, Michael C. Wittmann, Eleanor C. Sayre, Katrina E. Black



Website

<http://perlnet.umaine.edu/iqp/>

Teaching materials

You can download all course materials including tutorials, quizzes, and movies from the developer's website: <http://perlnet.umaine.edu/IQP>

