



## 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/>

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## **Teaching materials**

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