



Cannon balls: a quantum mechanical treatment.

Modern Physics

**Welcome to Mr. Berndt's
Modern Physics Class**

Goals of this class- Learning Outcomes:

- * Know the underlying structure of the universe and understand the measurement scales involved
- * Use models as a tool to understanding.
- * Investigate the evolution of models
- * Apply experimental tools and techniques.
- * Understand what is considered scientific evidence and why it is different from other types of evidence
- * Develop an understanding of the importance of these topics to society and how they may eventual be used in everyday life
- * Develop the ability to analyze information and then formulate question based on what they have learned from that information.
- * Interact with researchers and their current research.



Topics covered in this class:

Gravity
Black holes
Specific Relativity
General Relativity
Speed of light
Size of the universe
Duality
Fundamental forces
Aspects of Energy
Aspects of momentum
Aspects of Charge
Atomic Structure
Lasers
How the sun works
Shell model
Stability
Nuclear Decay
Anti-matter
Nuclear Energy
Particle Theory
Standard Mode
Neutrinos (Davis-Bahcall)
Higgs Boson
Cosmology
String Theory
Dark Matter and Dark Energy

