Global View - Physics (C0282)

Prof. Brown: Good morning, everybody. Welcome to Physics 101. My name is Ed Brown, and I will be your professor for this semester. Since today is our first class, I wanted to give you an overview of what this course will look like, how you will be graded, and what we will cover this semester.

Matt: Will we be focusing more on theoretical physics or experimental physics, Professor?

Prof. Brown: This is an introductory course, and my aim is to give you a broad overview of the field of physics. The term " physics" encompasses many different areas of research and study, and I hope this course will provide you with conceptual understanding of physics, which will prove useful whether or not you choose to further your study in this field.

Prof. Brown: We will begin the course by looking at the fundamental concepts of physics, then by the middle of the semester we will begin exploring the more theoretical side of physics. It is essential that you first have a firm grasp of the fundamentals, so that you can better understand the theoretical concepts when we get to them.

Matt: Will we learn about black holes, wormholes, and string theory?

Prof. Brown: We will learn about the general theory of relativity, including black holes. We will also explore developing theories in quantum mechanics, such as string theory. We will discuss some hypothetical features of space-time, like wormholes.

Prof. Brown: We will also explore some of the more influential developments in the fields of thermodynamics, electromagnetism, and nuclear physics, all of which have had significant impacts on modern life. Now, I am going to have the TAs pass out the syllabus for this class, so you can see how this course will be graded.

Matt: Oh man, looks like this isn't gonna be the easy A I thought it'd be!

Key Vocabulary

encompass	*V*	to include (something) as a part
conceptual	*A*	based on or relating to ideas or concepts

grasp	*N*	an understanding of something
black hole	*N*	an invisible area in outer space
quantum mechanics	*N*	the branch of physics that deals with energy and matter on an atomic level
hypothetical	*A*	involving or based on a suggested idea or theory
thermodynamics	*N*	a science that deals with the action of heat
electromagnetism	*N*	a magnetic field that is produced by a current of electricity
nuclear physics	*N*	the area of physics which deals with nuclei

Supplementary Vocabulary

academia	*N*	the various interests of a university and those who teach there

applicable	*A*	something that can be used in real-life situations
gravity	*N*	the force of attraction between two objects
ivory tower	*N*	refers to those who live in intellectual isolation, often without contact or applicability to the outside world
relevant	*A*	knowledge that can be applied to everyday situations