In addition to a structured foundational sequence of hard science courses, you’ll take adjunct mathematics courses while moving into more advanced areas in physics. Here’s a sample of what you can expect to learn and do:

**Introduction to Electromagnetism and Relativity**
This first-year course discusses electric and magnetic phenomena. It culminates in an elementary treatment of Maxwell’s equations. The course also discusses Einstein’s special theory of relativity and its consequences to near-speed-of-light travel.

**Introduction to Waves and Quantum Physics**
This sophomore course introduces students to the wonderfully weird world of quantum particles. After some preliminary treatment of wave phenomena, the course focuses on experimental foundations of quantum physics. Finally, it discusses the Schrödinger equation and the different interpretations of quantum mechanics.

**Cosmology**
This course combines observation results and theory to teach students about our universe (the space curvature, dark energy, dark matter etc.). It traces back the universe’s history, from the earliest moments till the formation of large scale structures that we see in our night sky, the stars and galaxies.

**Advanced Laboratory Physics**
Students conduct experiments not ordinarily done at the elementary level. Experiments are performed in such areas as electronics, mechanics, atomic physics and spectroscopy.