



Einstein. Newton. Hawking. Bohr. And you. These are the people who dare to say that our world, full of strange phenomena and seemingly unpredictable processes, is explainable. Physicists investigate and articulate the laws that govern our universe—from the largest scales of the entire cosmos, to the smallest subatomic particles, and everything in between. Biophysics, quantum optics, cosmology, material science, computer simulations – are all areas of research pursued by our faculty, and areas where you could contribute too! The great geniuses of physics have pushed the understanding of our universe forward. At Loyno, we'll give you the tools you need to be part of that adventure.

This is the place.

New Orleans is the perfect place to study physics and apply your new skills. If your interest is in biophysics, you'll find Loyno graduates working in neuroscience at the new health center downtown. If you want to explore alternative energy, local employers are working to harness wind and solar power. And for those interested in astrophysics and gravitation, the LIGO observatory that discovered gravitational waves is just a couple hours from campus. However you want to use your physics degree, New Orleans has a place for you.

Our structured program allows you to complete a full physics curriculum and prepare for continuing graduate studies in physics or a related field. At Loyno, undergraduate students are encouraged to collaborate with faculty on research projects, and our department offers use of sophisticated research facilities that live up to our students' research ambitions. Find your goals; explore them; research them; live them. We'll help you make it happen.

Courses

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

This course trains students to be self-reliant in planning and performing experiments not ordinarily done at the elementary level. Experiments are performed in such areas as electronics, mechanics, atomic physics, and spectroscopy.