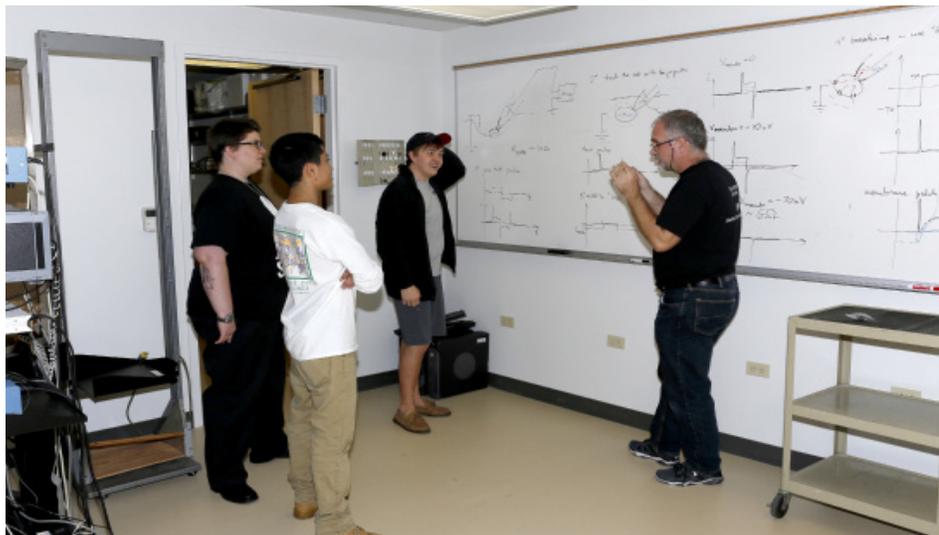


# PHYSICS *with a Concentration in Liberal Arts with Teacher's Certification*

COLLEGE OF ARTS + SCIENCES



## COURSES

In addition to the foundational sequence of science and mathematics courses, you'll select liberal arts electives while moving into more advanced areas in physics. And the teacher's certification included in the program will prepare you to teach grades 6-12. 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.

## EINSTEIN. NEWTON. HAWKING. FEYNMAN.

What do these people have in common? Of course they're all physicists, but they were also teachers. Passing knowledge along to the next generation is essential, and at Loyno we can prepare you to do it as a high school teacher. You will learn how to 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. Cellular biophysics, quantum optics, cosmology and gravitation, biomechanics, computer simulations, particle physics – 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 and then passed that understanding along to the next generation. At Loyno, we'll give you the tools you need to be part of that adventure.

## Possible Career Fields:

- High school teacher
- Researcher in physics education
- Research Analyst or Think-tank job
- Research scientist

**ATTENDING LOYOLA** means being in the heart of New Orleans. Our campus is located in the city's historic Uptown neighborhood, just a short drive from the Central Business District, the city's hub of innovation, creativity, and strategic thinking. You'll learn to hone your talents in the city named #1 new brainpower city in America and #1 best city in the U.S. for creative professionals.