Life can be funny. Or amazing. Or chaotic, beautiful, unfair, and too short. To a biologist life is discoverable above all else. And engineers know how to create order out of chaos. You’ll be both. You’ll understand building blocks both literal and figurative: the building blocks of life and of our structures. As a scientist you’ll learn how alternately fragile and resilient life can be, and that knowledge will supplement your engineering expertise as you design buildings and infrastructures that are safe and sustainable. Our program will give you the tools to make a career out of this unique intersection of interests.

This is the place.
There’s nowhere better to study biology than New Orleans. Home to diverse wildlife, it’s especially easy for a biologist to appreciate the Sportsman’s Paradise. At Loyno, you’ll get hands-on training while living in one of the country’s most distinctive ecosystems. With your pre-engineering specialty, you’ll learn the skills needed to build and update infrastructure that maintains the integrity of that ecosystem.

Our fast-track program will allow you to earn two degrees in only five years. Your first three years will be biology curriculum here at Loyno, and then your last two years will be mainly engineering coursework at another university—we currently partner with the engineering departments at the University of New Orleans and Tulane University’s School of Engineering. You will graduate with both an engineering degree and a biology degree in nearly half the time.

Courses
In your first three years here, you’ll take core biology courses, including lectures and labs for hands-on experience. You’ll then take engineering coursework at one of our partner universities to complete the program. Here’s a sample of what you can expect to learn and do:

Cells & Heredity
Learn the principles and concepts of chemical, cellular, and genetic processes common to all life, ranging from the scientific method and basic chemical concepts to cell structures, Mendelian inheritance, and the Central Dogma.

Biology of Organisms
Compare the functional biology of microbes, plants, and animals focusing on morphology, physiology, reproduction, development, and natural history.

Ecology and Evolution
This course introduces current concepts and principles of ecology and evolution. Students examine animal behavior, populations, communities, ecosystems, biogeography, natural selection, speciation, the history of life, human evolution, and other topics through lectures, readings, discussion, and a field trip.

Microbiology
This course examines the structure, function, metabolism, ecology, and pathogenesis of viruses, archaea, bacteria, and eukaryotic microbes.

Histology
The study of the microscopic structure of tissues and organs of the mammalian body and the study of the fundamentals of hematology are the focus of this course.