

PHARMACEUTICAL SCIENCES, BS

Campus: Westchester

Pharmaceutical sciences is a dynamic and interdisciplinary field that aims to integrate fundamental principles of natural, physical and organic chemistry, biochemistry, and biology to understand how to synthesize de novo medicine and to its optimize delivery to human body and translate this integrated understanding into new and improved therapies against human disease. Pharmaceutical sciences is a liberal arts and science major, and thus should be clearly distinguished from Pharmacy in that the former prepares students to pursue postgraduate education if they wish to be a licensed practitioner. Pharmaceutical sciences can be broadly classified into the following main categories, with many specialized fields within each category, such as: *Drug Discovery and Design, Drug Delivery, and Drug Action (Pharmaceutics & Pharmacology.)* The BS in Pharmaceutical Sciences program (PHS) provides students with the background for further post-baccalaureate study as well as the ability to work as professionals in research and development laboratories in the fields of pharmaceutical science, which can involve routine or innovative work for drug testing and development. Pharmaceutical scientists can also work in production or quality control in a laboratory or production line, as well as assisting pharmacists, chemists, and engineers to put more efficient methods of production and testing into practice. In some cases, pharmaceutical scientists can work independently on more complex projects. The PHS degree can also provide students with the formal educational preparation to be successful in employment in sales and marketing sectors of the pharmaceutical industry, or to apply for medical or dental schools or health allied sciences degrees.