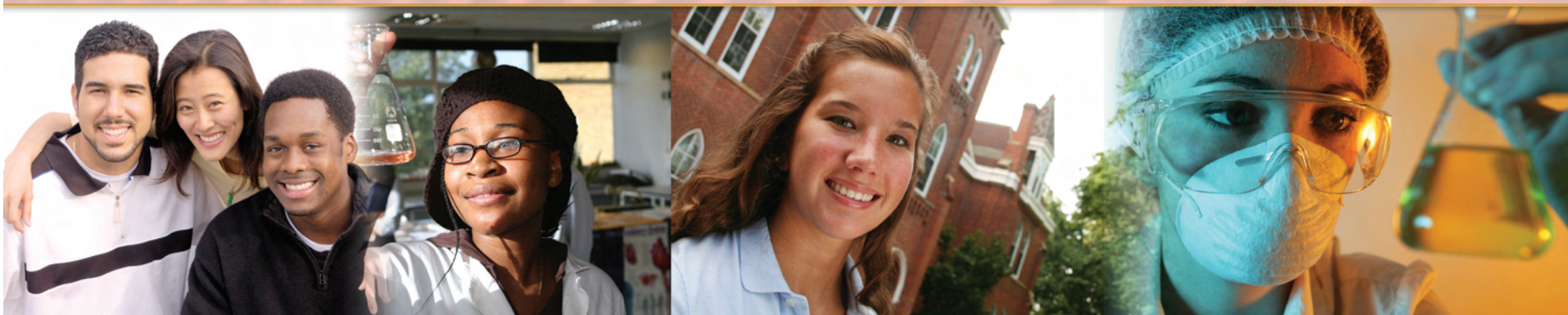



Regional Bio-pharmaceutical Educational Resources



 Life Science Career Alliance

Program Information	Program Description	Degree Granted	Career Target
<p>Biomedical Technician Training Program Division of Mathematics, Science & Health Careers Community College of Philadelphia 1700 Spring Garden Street Philadelphia, PA 19130</p>	<p>A partnership between the Community College of Philadelphia and the Wistar Institute, this program combines classroom learning with laboratory experience. Students follow CCP's Culture Science and Technology Associate degree curriculum, getting a strong foundation in math, sciences and the humanities. At the Wistar Institute, they receive an orientation to biomedical technology, and a training practicum, as well as 12-week internship.</p> <p>http://www.wistar.upenn.edu/education_training/biomedicaltech.html CCP Division of Mathematics, Science & Health Careers can be reached at 215-751-8430</p>	A.A. & Certificate	Biomedical Technician positions in academic research centers, pharm/ biotech firms
<p>Biotechnology/Biotechnology Technician Programs Department of Biology and Chemistry Delaware Technical & Community College 400 Stanton-Christiana Road Newark, Delaware 19713</p>	<p>The department of biology and chemistry at Delaware Technical and Community College offers two biotechnology-related programs. Students in the Biotechnology program follow a science-intensive major course of study which includes biology, chemistry, microbiology, organic chemistry, analytical chemistry, biotechnology and technical writing and communication.</p> <p>Students who follow the Biotechnology Technician course of study are asked to study mathematics, biology, chemistry, microbiology, a combined course in organic and biochemistry, analytical chemistry, and technical writing. Also required for those following the technician pathway are a Biotechnology II course, and a semester-long biotechnology internship.</p> <p>http://www.dtcc.edu/stanton/biochem/biotech.html 302-454-3965</p>	A.S.	Entry-level positions in research and industrial biotech firms
<p>Biotechnology Program Department of Math, Science and Health Careers Camden County College College Drive P.O. Box 200 Blackwood, NJ 08012</p>	<p>The Camden County College biotechnology program is a two-year course of study which stresses communication skills, critical thinking, ethical awareness, mathematics, and computer skills along with science and technology courses. Students are required to complete a supervised internship program at an approved biotechnology firm or a research project under the direction of college faculty following the completion of didactic study.</p> <p>Contact Dr. Teresa Smith for more information: tasmith@camdencc.edu 856-227-7200 ext.4479</p>	A.A.S.	Entry-level biotech positions
<p>Biotechnology A.A.S. Program Montgomery County Community College 340 DeKalb Pike Blue Bell, PA 19422</p>	<p>Program builds upon high school experience in biology and chemistry to give students understanding of the key tools and processes involved in drug discovery and biotechnology manufacturing, as well as giving students a picture of the career options open to them within the biotech industry.</p> <p>http://www.mc3.edu/aa/career/programs/BIOT-AAS.htm</p>	A.A.S.	Biotech Technicians Biotech Assistants
<p>Biotechnology A.S. Program Montgomery County Community College 340 DeKalb Pike Blue Bell, PA 19422</p>	<p>This program, designed to prepare students for advanced study in biotechnology at a 4-year college or university provides a foundation in the technology and processes used in the biotechnology and pharmaceutical industry. Students get hands-on experience using equipment, as well as a grounding in the theory behind biotech processes.</p> <p>http://www.mc3.edu/aa/career/programs/BIOT-AS.htm</p>	A.S.	Prepares for advanced study in biotech

<p>Biotechnology A.A.S. Program Burlington County College 601 Pemberton-Browns Mills Road Pemberton, NJ 08068</p>	<p>Program emphasizes hands-on training on industry-standard equipment to provide experience performing both routine and specialized experimental procedures. Record-keeping, troubleshooting, interpretation of experiments, along with interpersonal skills are stressed as students master techniques of molecular genetics, protein recovery, cell culture and microbial growth control. Program includes courses in molecular genetics, protein modeling, fermentation and cell culture, bioinformatics, some of which are typically found only in 4-year degree programs. Burlington County College puts a strong emphasis on having guest lecturers from within the industry speak to students about the real-world applications of their studies, and job possibilities on completion of their degree. Program is structured such that students first learn protocols, and then work to apply those protocols to situations in a lab setting. An advisory committee reviews the curriculum and modifies to reflect the changing needs of the industry on a yearly basis. Graduates have taken jobs in academic and industrial research labs. http://www.bcc.edu/pages/237.asp contact Dr. Laura Roselli 856.234.1934</p>	<p>A.A.S.</p>	<p>Entry-level positions in research and industrial biotech firms</p>
<p>Biotechnology A.S. Program Burlington County College 601 Pemberton-Browns Mills Road Pemberton, NJ 08068</p>	<p>Program provides theoretical and practical knowledge of the biotech field with a strong foundation in mathematics, biology and chemistry. Students are prepared for transfer to 4-year degree program for more advanced studies in biotechnology, or for entry-level laboratory work in medical, pharmaceutical, or environmental research. http://www.bcc.edu/pages/236.asp contact Dr. Laura Roselli 856.234.1934</p>	<p>A.S.</p>	<p>Advanced study in biotech or entry-level biotech positions</p>
<p>Delaware Valley College Biology major: Microbiology/Biotechnology Focus Department of Biology 700 East Butler Avenue Doylestown, PA 18901</p>	<p>While not exclusively a biotechnology program, the microbiology/biotechnology major focus with Delaware Valley College's biology department includes courses such as introduction to biotechnology, molecular techniques, tissue culture techniques, and clinical pathology. Many students continue on to graduate programs, but graduates are also prepared for entry-level work in the biotech and pharmaceutical industries. The presence of the Drexel Institute of Biotechnology and Virology Research in the same building as the Biology Department leads to internship opportunities for students interested in pursuing biotechnology research, as well as student exposure to the research lab environment including equipment and techniques. http://www.devalcol.edu/biology/</p>	<p>B.S.</p>	<p>Graduate studies or entry level positions in biotech research</p>
<p>Pharmaceutical Development Program West Chester University of Pennsylvania 117 Schmucker Science Center II West Chester, PA 19383</p>	<p>Students carry an intense math and science course load, including both physical and pharmaceutical sciences as well as taking a series of interdisciplinary courses taught by regional biopharmaceutical professionals. Students are also taught technical writing skills, oral communication skills, statistics, economics and biomedical ethics. Paid summer internships are a required component of the program and provide hands-on experience in biopharmaceutical facilities. http://www.wcupa.edu/ACADEMICS/sch_cas/pharm/default.htm 610-436-2939</p>	<p>B.S.</p>	<p>Middle management ? Grad school</p>

<p>Howard Hughes Medical Institute/ Interdisciplinary Science Scholars Program Haverford College Haverford, PA 19401</p>	<p>Established with a grant from the Howard Hughes Foundation, this program is designed to encourage Haverford students to enter careers in interdisciplinary science. The program’s interdisciplinary focus includes biochemistry, biophysics, neurobiology, bioinformatics, materials science, nanotechnology and applied mathematics. In order to apply for a position as an interdisciplinary science scholar, students must be majoring in the natural sciences at Haverford College, and commit to extensive interdisciplinary coursework, an intensive summer research experience with a member of the faculty affiliated with the program, and be prepared to present the results of their summer research at a poster session in September. In addition to major requirements, Interdisciplinary Science Scholars must complete one credit of mathematics or quantitative work, a minimum of four semesters of computer science or laboratory-based experimental science coursework, an advanced course exploring interdisciplinary science or mathematics outside of the major department, two semesters of research with a faculty mentor, and a course entitled Interdisciplinary Explorations of Biologically Significant Research. All scholars must participate in journal club meetings. Haverford appoints approximately ten Interdisciplinary Science Scholars each year. http://www.haverford.edu/biology/HHMI/biology.interdisp.appl.html</p>	<p>summer program, studies within B.A. program</p>	
<p>Engineering Biology Program Princeton University A201 Engineering Quadrangle Princeton, NJ 08544</p>	<p>Designed for highly motivated students interested in pursuing careers in biotechnology, this program allows biology majors to focus their studies on the most current industrial and technological applications for their science knowledge. Overseen by the engineering department, the program allows students to supplement their science courses with engineering courses to gain the practical applications knowledge. The Engineering Biology Program has contacts at several biotechnology firms in the region who often take Princeton students on as summer interns to give them hands-on experience. http://chemeng.princeton.edu/engbio/admin.shtml 609-258-4572</p>	<p>B.S.</p>	<p>Graduate coursework or...?</p>
<p>Biology Major with Biotechnology Concentration Biology Department Cabrini College 610 King of Prussia Road Radnor, PA 19087</p>	<p>Following basic foundation in biology, chemistry and physics, students may choose the concentrate their biology major around biotechnology. General microbiology, topics in drug design and manufacturing, and theory and practice of biotechnology provide didactic accompaniment to required internships in students’ field of specialization. http://www.cabrini.edu/default.aspx?pageid=804#biotechnology</p>	<p>B.S.</p>	<p>“entry level placement in pharmaceutical and biomedical research laboratories”</p>
<p>Biotechnology Certificate Science Department Cabrini College 610 King of Prussia Road Radnor, PA 19087</p>	<p>Current research technicians, and/or recent college graduates with Bachelor’s degrees in biology, biochemistry, or chemistry with a strong biological foundation may apply to this post-baccalaureate biotechnology certificate program. Courses include, among others, Advanced Topics in Drug Discovery and Manufacturing, Computational Molecular Biology, Advanced Biochemistry, and Special Topics in Biotechnology. Each student completes a directed research project or internship at a pharmaceutical or biotechnology firm or a biomedical research institution. http://www.cabrini.edu/default.aspx?pageid=994</p>	<p>Post-bacc Certificate</p>	

<p>Pharmaceutical Sciences Program University of the Sciences in Philadelphia 600 South 43rd Street Philadelphia, PA 19104</p>	<p>Program provides a solid foundation in the basic sciences, followed by laboratory-based courses in product development, assay development, stability testing of drug products. Students conduct research in faculty-directed labs, and complete the 4-year degree prepared for careers in research, drug delivery, product development/formulation, production/manufacturing, QC/QA, packaging, drug stability testing, regulatory affairs.</p> <p>http://www.usp.edu/majors/pharmsci.shtml#pharmtech</p>	B.S.	entry-level positions in pharm, biotech companies, government, specialty laboratories
<p>Pharmaceutical Marketing and Management University of the Sciences in Philadelphia 600 South 43rd Street Philadelphia, PA 19104</p>	<p>Program combines science and business with a focus on the healthcare industry, and USIP's array of connections to local biotech and pharmaceutical firms afford students extensive opportunity to network, and complete internships and summer employment programs during their studies.</p> <p>http://www.usp.edu/pmm/</p>	B.S.	entry-level sales and marketing positions in pharm and healthcare as well as advertising, biomedical devices and consulting
<p>Pharmacology and Toxicology University of the Sciences in Philadelphia 600 South 43rd Street Philadelphia, PA 19104</p>	<p>Program provides intensive instruction in basic and applied sciences related to pharmacology and toxicology including extensive laboratory experience. Bachelor's degree students have the opportunity to conduct independent research and/or participate in an industrial or governmental internship program or a traineeship at a private agency. Graduate students pursue coursework and research leading to a thesis or dissertation, often in conjunction with an industrial partner.</p> <p>www.usip.edu/pharmaceuticalsciences/</p>	B.S., M.S, PhD	Entry level (B.S.) and leadership positions (M.S., PhD) the pharm and chemical industries, including positions in QC and risk assessment
<p>Pharmaceutics Program University of the Sciences in Philadelphia 600 South 43rd Street Philadelphia, PA 19104</p>	<p>Program gives students a thorough foundation in the theoretical aspects of dosage form design and utilization, and the physical chemical and physiological properties of drug delivery. Students apply this knowledge to studies in drug delivery, pharmacokinetics, pharmacodynamics, drug product development, rheology, formulation and process optimization and stability.</p> <p>http://www.usp.edu/graduate/pharmaceutics/index.shtml</p>	M.S. (thesis/non-thesis), PhD,	Leadership positions in pharm and related drug development and delivery fields.

<p>Pharmaceutical Chemistry University of the Sciences in Philadelphia 600 South 43rd Street Philadelphia, PA 19104</p>	<p>Program gives students a strong background in basic and applied sciences required to participate in development and evaluation of new drugs. Applications may include devising and implementing strategies for syntheses of drugs, modifications of drugs or delivery systems, or analyses of drugs for purity, persistence, safety and efficacy.</p> <p>http://www.usip.edu/chemistry</p>	<p>B.S.</p>	<p>Entry-level positions in pharm industry or gov't labs as researchers in drug synthesis or analysis, entry level marketing positions or forensic science.</p>
<p>Bioinformatics University of the Sciences in Philadelphia 600 South 43rd Street Philadelphia, PA 19104</p>	<p>Program integrates a strong fundamental background in the sciences with specific training in computer science, chemical modeling, molecular biology and genomics. Special emphasis is placed on practical skills in computer programming and working with bioinformatics software and computer platforms. A year-long capstone course combines theory with hand-on experience performing bioinformatics analysis. The M.S. program includes a balanced emphasis on basic science and computing with a special focus on the programming skills most needed in the pharmaceutical and biotechnology industries. Students complete a two-semester independent study project rather than a master's thesis, and may choose to work with either an industry partner or an academic partner.</p> <p>http://www.usip.edu/majors/bioinformatics.shtml (undergraduate) http://www.usip.edu/graduate/bioinformatics/index.shtml (graduate)</p>	<p>B.S., M.S.</p>	<p>Research positions in pharm and biotech including smaller companies specializing in genomics/bioinformatics</p>
<p>Biochemistry University of the Sciences in Philadelphia 600 South 43rd Street Philadelphia, PA 19104</p>	<p>Undergraduate program provides strong basic science training, extensive laboratory work, and practice of a range of experimental techniques. Students are strongly encouraged to complete a research project. The graduate programs emphasize expertise with modern instrumentation and preparation for research. The close affiliation of faculty with colleagues in pharmacology, toxicology, bioinformatics, and pharmaceuticals has resulted in a strong research focus on the application of chemical methods to research problems in the health sciences and drug discovery.</p> <p>http://www.usip.edu/chemistry</p>	<p>B.S., M.S. (thesis and non-thesis), PhD</p>	<p>Entry-level (B.S.) or leadership positions (M.S., PhD) in pharm and biotech industries; research positions and sales of pharm products</p>

<p>Cell Biology and Biotechnology Program University of the Sciences in Philadelphia 600 South 43rd Street Philadelphia, PA 19104</p>	<p>Program is designed to give student knowledge of theory and practice of biotechnological techniques and applications, and includes courses in cell biology, biotechnology and methods, and electives including bioinformatics, introduction to research, pharmacognosy, virology, biochemical genetics. Whether or not student completes thesis research path to degree, program emphasis is on methodology.</p> <p>http://www.usp.edu/graduate/cellbio/</p>	<p>M.S. (thesis and non-thesis)</p>	<p>Leadership research positions in pharm, chemical, biotech and related firms</p>
<p>Pharmacognosy Program University of the Sciences in Philadelphia 600 South 43rd Street Philadelphia, PA 19104</p>	<p>Program focuses on the study of natural products used therapeutically in medicine, and includes a comprehensive review of current literature, a seminar in graduate-level scientific writing, heterocyclic chemistry, biology and chemistry electives, and courses in pharmacognosy, preparing students to conduct their own graduate-level research under the supervision of faculty members.</p> <p>http://www.usp.edu/graduate/pharmacognosy/</p>	<p>M.S., PhD</p>	<p>Leadership positions in natural products research in pharm, chemical, biotech and related firms, gov't. laboratories.</p>
<p>Biomedical Engineering Program Drexel University Bossone Research Enterprise Center 31st & Market Street Philadelphia, PA 19104</p>	<p>Students in Drexel's Biomedical Engineering program are prepared to conceive, design and develop devices and systems that improve human health and quality of life working in industries such as medical devices and diagnostics, pharmaceuticals and biotechnology. During their first two years of undergraduate studies, students pursuing the B.S. degree follow the Drexel Engineering Curriculum for the first two years of college and establish a foundation in the basic sciences. Courses in students' junior and senior years of study are determined by their selection of an area of concentration: Biomedical Informatics, Biomechanics and Human Performance Engineering, Neuroengineering, Biomedical Systems and Imaging, Biomaterials and Tissue Engineering, or General Biomedical Engineering. Students may pursue research experience through a co-op job or working in a faculty laboratory.</p> <p>For those students who wish to pursue graduate studies in Biomedical Engineering who do not have a background in engineering, physical science or mathematics, Drexel offers the Biomedical Engineering crossover program which provides students with a foundation in engineering and an introduction to biomaterials.</p> <p>Students in the multi-disciplinary Masters' degree program combine coursework with research, and may focus their studies on biomedical imaging, biomechanics and biomaterials, human factors and performance engineering, neuroengineering, and tissue engineering. Students may pursue a thesis or non-thesis path to the degree.</p> <p>Graduate students interested in pursuing a PhD in biomedical engineering are invited to discuss their research interests with Drexel faculty.</p> <p>http://www.biomed.drexel.edu/new04/default.cfm</p>	<p>B.S., M.S., PhD</p>	

<p>Biomedical Science Program Department of Biomedical Engineering Drexel University Bossone Research Enterprise Center 31st & Market Street Philadelphia, PA 19104</p>	<p>The Drexel University Department of Biomedical Engineering offers a Biomedical Science program geared towards students who have undergraduate degrees in basic life sciences or paramedical disciplines such as nursing, physical therapy and medical technology. These students may enter the program to gain quantitative analysis, mathematical modeling, computing skills and informatics skills which are in high demand in the biotechnology and pharmaceutical industries. Students with undergraduate backgrounds in the physical sciences may enter the program to develop their knowledge of the life sciences. All students have the option to specialize in biostatistics, genome science or systems biology and upon completion of the M.S in Biomedical Science have developed key skills in modeling living systems and the processing and display of biomedical information. Graduate students interested in pursuing a PhD in bioscience are invited to discuss their research interests with Drexel faculty. http://www.biomed.drexel.edu/new04/default.cfm</p>	<p>M.S., PhD</p>	
<p>Department of Bioscience & Biotechnology Drexel University 118 Stratton Hall 32nd & Chestnut streets Philadelphia, Pennsylvania 19104</p>	<p>Students pursuing degrees within Drexel’s department of Bioscience and Biotechnology pursue coursework with intensive laboratory study components in which the emphasis is placed on the application of classroom principles to experimental research. Required courses for the undergraduate degree include Techniques of Cell Biology, Techniques of Microbiology, Structure and Function of Biomolecules, Biometry, Data Analysis in the Biological Sciences. Graduate courses offered to Bioscience and Biotechnology M.S. and PhD candidates include Microbial Genetics, Advanced Cell Biology, Proteins, Experimental Biochemistry, Biomembranes, Bioinformatics, Data Analysis in the Biosciences, Modeling Methods in Biology and more. http://www.drexel.edu/coas/bioscience/index.html</p>	<p>B.S., M.S., PhD</p>	
<p>Clinical Trials Program Drexel e-Learning 3001 Market Street Suite 300 Philadelphia, PA 19104</p>	<p>This online Master’s of Science in Nursing program (which can also be taken as a post-master’s certificate course of study by those students who have already received an MSN) is a 36 credit graduate program comprised of ten courses and a practicum assignment. Registered Nurses who participate in the program study part-time while working. Coursework leads to expertise in applying FDA rules and regulations, understanding the phases of clinical research investigation, the new drug approval process, drug protocol development, budgeting for clinical trials, informed consent, patient and family issues, and business management and marketing for clinical trials. http://www.drexel.com/Fields_of_Study/nursing/MSN-trials/index.shtml</p>	<p>M.S.N or post- master’s certificate</p>	<p>research coordinator, clinical scientist, clinical trials manager, coordinator or developer</p>
<p>Roy and Diana Vagelos Program in Life Sciences and Management University of Pennsylvania Philadelphia, PA 19104</p>	<p>An undergraduate program leading to a Bachelor of Science in Economics from the Wharton School as well as either a science minor through the School of Arts and Sciences, or a Bachelor of Arts in a science major through the same school. Students complete a common core course, as well as an upper-level science research project, and internships in both science and business. Students complete the program with training in both science and management, and prepared for careers in biotechnology and pharmaceutical firms. http://www.upenn.edu/lsm/lsm-info@pobox.upenn.edu</p>	<p>B.S.</p>	

<p>Professional Master's Biotechnology Program 3340 Smith Walk 1020 Vagelos Research Laboratories University of Pennsylvania Philadelphia, PA 19104-6383</p>	<p>Program prepares full- and part-time professional students for leadership positions in the biotech and pharmaceutical industries. Faculty for this program are drawn from the University's School of Arts and Sciences, and School of Engineering and Applied Science. (There is also an option to do a joint MBA degree program through the Wharton School.) Students take a selection of core courses, which offer a broad exposure to the entire field of biotechnology, after which they choose to specialize in one of four tracks: molecular biotechnology, biopharmaceutical engineering biotechnology, computational biology/bioinformatics, biomedical technologies. http://www.upenn.edu/biotech/ (215) 746-0131 biotech@pobox.upenn.edu</p>	<p>M.B.</p>	
<p>Integrated Science, Business and Technology LaSalle University 1900 West Olney Avenue Philadelphia, PA 19141</p>	<p>An undergraduate program, ISBT offers students in the Biotechnology track such courses as Biotechnology of the Pharmaceuticals Industry, Biotechnology of Diagnostics, Pharmacology and Toxicology, Bioprocessing, Tissue Culture, and Bioinformatics. Curriculum material is kept current with the input of advisory board members representing Johnson & Johnson, Centacor, Independence Blue Cross, Albert Einstein Healthcare Network, GlaxoSmithKline, and AstraZeneca. Students are able to use state-of-the-art instruments including computer controlled bioreactors, and a Virtual Control Room. http://www.lasalle.edu/isbt/3_about.html isbt@lasalle.edu</p>	<p>B.S.</p>	
<p>Biotechnology Baccalaureate Degree Program Department of Bioscience Technologies College of Graduate Studies & Health Professions Thomas Jefferson University 130 South 9th Street, Edison Bldg.1924 Philadelphia, PA 19107</p>	<p>The biotechnology program at Jefferson focuses on teaching students the laboratory techniques, management methods and medical research competencies necessary as they take on the role of technologists participating in and contributing to design, research, development and pre-clinical testing of diagnostic and therapeutic agents and methods. Students can enter the Baccalaureate Biotechnology program as juniors, and follow a full-time 2-year 2+2 path to the degree; seniors can enter the program, carry a slightly heavier course-load and complete the program in one year of full-time study on the 3+1 path. http://www.jefferson.edu/jchp/ls/biotechdesc.cfm 215-503-7844</p>	<p>B.S.</p>	
<p>Biotechnology Entry-level BS/MS Program Department of Bioscience Technologies College of Graduate Studies & Health Professions Thomas Jefferson University 130 South 9th Street, Edison Bldg.1924 Philadelphia, PA 19107</p>	<p>Jefferson's combined entry-level B.S./M.S. program follows a similar curriculum to that of the Bachelor's degree program in a 3+2 format, achieving a Master's degree through further advanced study in biological or chemical sciences, and additional Biotechnology elective courses. The focus of the program is on developing the technical and problem-solving skills necessary for research in industry and academic settings, as well as providing the preparation necessary to enter further graduate degree programs. http://www.jefferson.edu/jchp/ls/biotechdesc.cfm 215-503-7844</p>	<p>B.S., M.S.</p>	

<p>Post-Baccalaureate Certificate in Biotechnology Department of Bioscience Technologies College of Graduate Studies & Health Professions Thomas Jefferson University 130 South 9th Street, Edison Bldg.1924 Philadelphia, PA 19107</p>	<p>Those who have completed undergraduate degrees in other disciplines may participate in Jefferson's 4+1 post-baccalaureate certificate program. The program allows students the opportunity to gain skills and practical experience in five key biotechnology-related areas: Immunology, immunochemistry and immunodiagnostics; recombinant DNA and related molecular biologic techniques; cell sorting, flow cytometry and digital imaging techniques; protein chemistry, molecular modeling and chromatographic techniques; cell and tissue culture. http://www.jefferson.edu/jchp/ls/biotechdesc.cfm 215-503-7844</p>	<p>Post-bacc Certificate</p>	
<p>Graduate Programs in Biomedical Technology Philadelphia College of Osteopathic Medicine 4170 City Avenue Philadelphia, PA 19131</p>	<p>The PCOM Graduate Program in Biomedical Sciences provides an opportunity for students with baccalaureate degrees to begin their graduate study in the biomedical sciences as preparation for science careers or as additional preparation for professional study. The program represents a broad content base in the basic biomedical sciences with a strong emphasis on human medicine and clinical applications of the material. The first year of the program emphasizes biomedical concepts. It is designed for college graduates who are preparing for admission to health profession programs and/or who wish to extend their knowledge of the biomedical sciences in a medical school environment. All courses are similar in depth and intensity to courses in medical education. Students may complete the first year of study to receive a certificate of graduate study, or they may choose to complete an additional year of graduate study in a selected area of concentration such as biomedical research, forensic biology or organizational leadership in the biosciences to receive a master's degree. http://www.pcom.edu/Academic_Programs/aca_biomed/aca_biomed.html</p>	<p>M.S., post-bacc certificate</p>	
<p>Biotechnology Concentration within Biology Major Department of Biological Sciences University of Delaware 118 Wolf Hall Newark, DE 19716</p>	<p>A four-year program that emphasizes laboratory coursework and experience, this program exposes students to various aspects of molecular, cellular and physical biosciences. Specialized biotechnology courses begin in the third year of study, and include Molecular Biology of Animal Cells, Biochemical Genetics, Virology, Evolutionary Genetics, Advanced Molecular Biology and Genetics, Topics in Immunogenetics, Human Genetics, Membrane Biochemistry. http://www.udel.edu/bio/ed/undergrad/degrees/bbt.html</p>	<p>B.S.</p>	<p>Entry-level lab positions; graduate study</p>

<p>IGERT at the University of Delaware Department of Chemical Engineering Colburn Laboratory University of Delaware Newark, DE 19716</p>	<p>An interdisciplinary program, IGERT (Integrative Graduate Education and Research Traineeship), brings together the departments of Chemical Engineering, Biological Sciences, Chemistry and Biochemistry, Computer and Information Sciences, Materials Science and Engineering, and Plant and Soil Science to provide doctoral students with broad perspective, practical experience, and the opportunity to conduct research collaboratively. Students follow the coursework and path to degree determined by the department in which they are working. This coursework is supplemented by participation in “Multidisciplinary Teamwork in Biotechnology,” a real-world course in which industry leaders instruct students on current technological issues are in the world of biotechnology including technological hurdles, scientific and engineering challenges, and business and societal considerations. Students receive ethics instruction, training in oral and written presentations and teamwork training. Students also participate in multi-disciplinary research projects, and practical experience working in industrial/clinical labs, hospitals, or government facilities.</p> <p>http://www.che.udel.edu/igert/igert@che.udel.edu</p>	<p>PhD</p>	
<p>Executive Pharmaceutical Marketing MBA @ ACE Center Erivan K. Haub School of Business Saint Joseph’s University 5600 City Avenue Philadelphia, PA 19131</p>	<p>With courses tailored specifically to the pharmaceutical industry, the Pharmaceutical Marketing MBA program allows students to develop a skills set specifically tailored to application to a changing business environment. The programs focuses on developing an understanding of developing sophisticated research tools, innovative marketing plans, and techniques for implementing and evaluating business strategies. The Saint Joseph’s program hosted at the ACE Center delivers courses in a two-day Friday/Saturday executive format, with 26 two-day courses required for degree completion. Some three-day courses are required as well. All participants in this program have previous experience in related industries.</p> <p>http://www.sju.edu/hsb/pharmaceutical_marketing/pages/mba_ace.html</p>	<p>MBA</p>	
<p>Executive Pharmaceutical Marketing Online MBA Erivan K. Haub School of Business Saint Joseph’s University 5600 City Avenue Philadelphia, PA 19131</p>	<p>Based on the Executive Pharmaceutical Marketing MBA @ ACE Center, this online program allows students unable to attend ACE Center classes to follow the same curriculum and work towards their MBA degree.</p> <p>http://www.sju.edu/hsb/pharmaceutical_marketing/pages/online_mba.html</p>	<p>MBA</p>	
<p>Executive Pharmaceutical Marketing Post-MBA Certificate @ ACE Center Erivan K. Haub School of Business Saint Joseph’s University 5600 City Avenue Philadelphia, PA 19131</p>	<p>With courses tailored specifically to the pharmaceutical industry, the Pharmaceutical Marketing post-MBA certificate program allows students to develop a skills set specifically tailored to application to a changing business environment. The programs focuses on developing an understanding of developing sophisticated research tools, innovative marketing plans, and techniques for implementing and evaluating business strategies. The Saint Joseph’s program hosted at the ACE Center delivers courses in a two-day Friday/Saturday executive format</p> <p>http://www.sju.edu/hsb/pharmaceutical_marketing/pages/postmba_ace.html</p>	<p>Post-MBA certificate</p>	

<p>Executive Pharmaceutical Marketing Online Post-MBA Certificate Erivan K. Haub School of Business Saint Joseph's University 5600 City Avenue Philadelphia, PA 19131</p>	<p>Based on the Executive Pharmaceutical Marketing Post-MBA Certificate @ ACE Center, this online program allows students unable to attend ACE Center classes to follow the same curriculum and work towards their post-MBA certificate.</p> <p>http://www.sju.edu/hsb/pharmaceutical_marketing/pages/online_postmba.html</p>	<p>Post-MBA certificate</p>	
<p>Graduate Certificate in Bioinformatics Penn State Great Valley School of Graduate Professional Studies 30 East Swedesford Road Malvern, PA 19355</p>	<p>The Penn State Great Valley Graduate certificate program in Bioinformatics provides professionals in the life sciences with fundamental skills in bioinformatics, including biostatistics, database design, data mining, genetic algorithms and bioethics. This program builds upon participants' strong prior knowledge of computer science, statistics, informatics and molecular biology. In order to receive a graduate certificate, participants must complete 15 credits of graduate study as well as a capstone research experience.</p> <p>http://gv.psu.edu/Prospective_Students/Degrees_Certificates/Bioinformatics/</p>	<p>Graduate certificate</p>	
<p>Master's of Business Administration in Biotechnology and Health Industry Management Penn State Great Valley School of Graduate Professional Studies 30 East Swedesford Road Malvern, PA 19355</p>	<p>Courses in this Biotechnology and Health Industry focused M.B.A. program focus on developing and applying a solid understanding of management theory and practice, and emphasize knowledge specific to the health industry. The program is targeted towards professionals who have worked in biotechnology and/or health industries for 3+ years, and who have prior undergraduate coursework in accounting, economics and algebra; those applicants who lack this background coursework are asked to take supplemental undergraduate courses. The MBA curriculum is comprised of 24 credits of skills and core courses, 15 credits of advanced courses, 12 credits of biotechnology and health industry courses, and one 3 credit capstone course. Courses are offered in 7-week and 14-week formats.</p> <p>http://gv.psu.edu/Prospective_Students/Degrees_Certificates/Management_MBA_Programs/</p>	<p>M.B.A.</p>	
<p>Post-Master's Degree Certificate in Biotechnology and Health Industry Management Penn State Great Valley School of Graduate Professional Studies 30 East Swedesford Road Malvern, PA 19355</p>	<p>This graduate-level certificate program targets advanced-degree holding professionals in the healthcare and health service industries, and addresses issues pertaining to healthcare, business and management. Program participants who have not previously completed graduate-level courses in managerial accounting must complete either Financial and Managerial Accounting or Financial Accounting Theory and Reporting Problems as well as Behavioral Science in Business prior to enrolling in the certificate program. Required courses in the certificate program include Biotechnology and Health Industry Overview, Ethical Dimensions of Management in the Biotechnology and Health Industry, and Future of the Biotechnology and Health Industry. Participants then choose one of five elective course options to complete their certificate work: Health Law, Health Care Marketing, Information Systems in Health Services Organizations, Special Topics in Biotechnology and Health Industry, or Bioinformatics.</p> <p>http://gv.psu.edu/Prospective_Students/Degrees_Certificates/Post-Masters_Certificate_Programs/</p>	<p>Graduate certificate</p>	

<p>Master's of Science Programs in Pharmaceutical Sciences Temple University School of Pharmacy 3307 North Broad Street Philadelphia, PA 19140</p>	<p>Temple University School of Pharmacy offers a thesis-based Master's of Science degree in Pharmaceutical Science with concentrations in Medicinal Chemistry, Pharmaceutics, or Pharmacodynamics. Students must complete 30 credits of graduate study as well as a body of research under the direction of a faculty member of the School of Pharmacy. The degree is awarded upon successful completion and defense of the thesis.</p> <p>Students may choose to follow the non-thesis path to the Master's of Science degree in Pharmaceutics. This program, offered at Temple University's Fort Washington campus is geared towards professionals in the pharmaceutical industry who possess a Bachelor's of Science degree and wish to pursue graduate training in order to advance their careers. Courses in the non-thesis Master's degree program follow an evening and/or weekend schedule to accommodate professionals' busy schedules, and participants must complete 36 graduate credits in five years in order to receive a degree.</p> <p>http://www.temple.edu/pharmacy/graduate_programs.htm</p>	<p>M.S.</p>	
<p>QA/RA Certificate Programs Temple University School of Pharmacy 425 Commerce Drive Suite 175 Fort Washington, PA 19034</p>	<p>The Temple University <i>Drug Development Certificate</i> allows students to explore possible careers in quality assurance and regulatory affairs without committing to a full Master's degree curriculum. The GRE is not required for admission into the Drug Development Certificate program, though participants may apply to continue their studies on towards the Master's degree while in the certificate program. The four courses that comprise the certificate curriculum integrate pharmaceutical law and regulation, pharmaceutical technology and quality assurance.</p> <p>The Temple University <i>Clinical Trial Management Certificate</i> program comprises five courses geared towards professionals in the pharmaceutical or healthcare industries who seek to work, or already work in all areas of clinical trials. The program emphasizes the tools and information needed to design, conduct and audit pharmaceutical clinical trials, with additional focus on informed consent, protocol development, roles and responsibilities of the Institutional Review Board, and study management.</p> <p>Temple University offers a certificate program called <i>Basic Pharmaceutical Development for MBAs</i> which provides MBA-holding professionals seeking to enter the pharmaceutical industry with a basic foundation in the necessary terminology, concepts and understanding of the regulatory environment.</p> <p>http://www.temple.edu/pharmacy_QARA/program_certificates.htm#Non-T 215.591.2333 qara@temple.edu</p>	<p>Post-bacc certificate</p>	

<p>QA/RA Master's Degree Program Temple University School of Pharmacy 425 Commerce Drive Suite 175 Fort Washington, PA 19034</p>	<p>This Master's degree program is geared towards professionals in the pharmaceutical industry who seek to advance their careers through the study of the latest pharmaceutical quality issues, regulatory requirements, scientific concepts and research techniques. Instructors in this program, run through the university's school of pharmacy, include industry professionals as well as FDA experts. The curriculum focuses on laws, regulations, quality principles and practices, and hands-on experiences in such critical areas as pharmaceutical medicine, oral dosage forms, biotechnology processing, and statistics. Courses in regulatory and quality issues address drug law, good manufacturing processes, good clinical practices, and good laboratory practices.</p> <p>http://www.temple.edu/pharmacy_QARA/ 215.591.2333 qara@temple.edu</p>	<p>M.S.</p>	
<p>QA/RA Post-Master's Certificate Program Temple University School of Pharmacy 425 Commerce Drive Suite 175 Fort Washington, PA 19034</p>	<p>Temple University's Post-Master's degree Certificate program in Advanced Quality Assurance and Regulatory Affairs allows Master's degree graduates to keep their knowledge current by taking cutting-edge elective courses as they are made available by the School of Pharmacy. Courses taken for the QA/RA Master's degree program are not counted towards the post-master's certificate, and students must complete four courses beyond the M.S. degree to be awarded the advanced study certificate.</p> <p>http://www.temple.edu/pharmacy_QARA/program_certificates.htm#Non-T</p>	<p>Post-Master's certificate</p>	
<p>PhD Degree in Pharmaceutical Sciences Temple University School of Pharmacy 3307 North Broad Street Philadelphia, PA 19140</p>	<p>Students can choose to pursue a doctoral degree in one of three areas of focus: medicinal chemistry, pharmaceuticals, or pharmacodynamics, and must complete 40 didactic credits beyond the bachelor's degree in their area of focus. In addition, students must complete original research in pharmaceutical sciences, and defend a written dissertation to a review committee.</p> <p>http://www.temple.edu/pharmacy/graduate_programs.htm</p>	<p>PhD</p>	
<p>Chemical Engineering Biotechnology Certificate Villanova University College of Engineering 800 East Lancaster Avenue Villanova, PA 19085</p>	<p>This Chemical Engineering Biotechnology certificate offered by Villanova University's College of Engineering is geared primarily towards students already pursuing graduate studies in Chemistry and Biology at the university. The certificate program in biotechnology introduces students to the fundamentals of biochemical engineering, presenting the topics in a framework relevant to work in the biotechnology and pharmaceutical industries. Students pursuing the certificate are required to take two semester-long courses in Biochemical Engineering, as well as two elective courses from a selection which includes Molecular Genetics, Molecular Cell Biology, Experimental Cell and Molecular Methods, Recombinant DNA technology, Virology, Enzymes, Intermediary Metabolism, and Special Topics in Biochemistry.</p> <p>http://www.engineering.villanova.edu/academics/che/certificate_programs/certbiotechnolgy.htm</p>	<p>Graduate-level certificate</p>	