

Biomedical Technology



Recommendations for Success:

- Good attendance
- Homework completion
- Ability to follow written and oral directions
- Good listening skills
- Effective communication skills
- Responsible
- Ability to work independently
- Ability to work well with others
- Good organizational skills
- Interest in the life sciences
- High school biology

Lenape Technical School	Biomedical Technology
Objective of field	The Biomedical Technology Program prepares students for careers in various health care fields as well as biotechnological, clinical, forensic, and research laboratories.
Job Duties	<ul style="list-style-type: none"> • Clinical diagnostic work • Biomedical research • Forensics and pharmaceutical development • The curriculum also prepares students for various jobs in the health care industry
Classroom Tests	<p>Year 1: (quizzes and/or tests) 2/week* Year 2: (quizzes and/or tests) 2/week* Year 3: (quizzes and/or tests) 2/week*</p> <p>Biotechnology Chapter Exams Anatomy and Physiology Chapter Exams Laboratory Practicals Weekly Medical Terminology Quizzes and Annual Final Pharmacy Technician Certification Section Tests, Math Exams and Final</p> <p><i>*This number is approximate and is subject to change</i></p>
Certification Tests	<p>American Heart Association (AHA) CPR/AED AHA First Aid Bloodborne and Airborne Pathogens Pharmacy Technician Certification Exam (optional upon graduation)</p>
Books	<p><u>Anatomy , Physiology, and Disease: An Interactive Journey for Health Professional</u> (Pearson) <u>Biotechnology: Science for the New Millennium with Lab Manual</u> (Paradigm) <u>Certified Pharmacy Technician Course</u> by Mark Greenwald, RPh</p>
Lecture Time	<p>Year 1: 5 hrs/wk* Year 2: 5 hrs/wk* Year 3: 2.5 hrs/wk*</p> <p><i>*This number is approximate and subject to change</i></p>
Co-op/Clinical	<ul style="list-style-type: none"> • Student must receive approval from all members of the professional staff • Student must have a “B” grade or higher in all subjects • Student must have a satisfactory discipline record • Student must maintain passing grades while they are in the co-op program • Student must maintain strong attendance record and demonstrate punctuality • Student must provide their own transportation to and from work
Homework	<ul style="list-style-type: none"> • Completion of assignments as given • Trimester projects (subject/type varies) • Written lab reports
Task Lists	<p>Year 1: 20* Year 2: 27* Year 3: tasks vary*</p> <p><i>*This number is approximate and subject to change</i></p>

Lenape Technical School	Biomedical Technology
Planned Courses	<ul style="list-style-type: none"> • Participation in student activities • Exploring Foundations of Biomedical Technology • Laboratory Safety • Quality Assurance / Quality Control • Basic Laboratory Skills • Basic Microbiology, Molecular Biology, Biochemistry, and Cell Culture Techniques • Investigating Bioengineering and Genetic Engineering Techniques • Biotechnology's Role in Medicine • Bioethics • General Forensic Science Laboratory Techniques • Understanding Human Anatomy and Physiology • Medical Terminology • Basic Medical Laboratory Procedures • Basic Diagnostic Procedures • Pharmacology/Pharmacy Technician Certification Coursework with Labs • Biomedical Technology Career Options and Work Place Readiness
Academic Skills	<p>High School reading level</p> <p>Math Skills (covered in program):</p> <ul style="list-style-type: none"> • Decimals/fractions • Metric/English conversions • Measurement conversions • Proportions (dosage calculations) • Percentage problems • Lab solution preparation calculations • Dilution calculations • Data analysis
Soft Skills	<ul style="list-style-type: none"> • Communication with others • Ability to work with others • Patience • Problem solving • Public Speaking
Computer Skills	<ul style="list-style-type: none"> • Microsoft Word, Excel and PowerPoint • Internet search engines • Online course software
Physical Requirements	<ul style="list-style-type: none"> • Good hand-eye coordination • Ability to stand for extended periods of time
Vocational Testing Essential Aptitudes for lab recommended levels	<ul style="list-style-type: none"> • Biomedical technologists must be neat, careful and methodical • Accuracy is of the utmost importance in the work, as negligence could endanger patients' lives • A high concentration capacity is essential • Biomedical technologists are expected to give their undivided attention to their work, so that even a slight variation or change in an experiment will not go unnoticed • All members of this medical profession must be extremely responsible and adhere strictly to the professional code of ethics (for example, no information of laboratory findings may be made known to the public, except where ethical procedures allow it)

Lenape Technical School	Biomedical Technology																																									
Training	Students will participate in the Pharmacy Technician Certification Course during the second year of the program. This will provide increased job opportunities and will prepare the students to be eligible to take the Pharmacy Technician Certification Board (PTCB) examination upon graduation.																																									
Uniform Requirements	<p>Student's Expense:</p> <ul style="list-style-type: none"> • Medical scrub top and bottom • Laboratory Smock • White closed toe shoe • Lenape embroidered polo shirt <p><i>*Lab goggles are provided</i></p>																																									
Articulation/Agreements	This is a program of study (POS) that has a state-wide articulation agreement with post-secondary institutions. To find these, please see: www.collegetransfer.net for this CIP Code: 26.1201																																									
Employment/Job Outlook	<p>In Pennsylvania, 7 of the 20 fastest growing occupations are health care related. Health care will generate 3 million new wage and salary jobs between 2006 and 2016, more than any other industry. This holds true for both occupations dealing with direct patient contact and those in support positions such as the laboratory sciences. Most workers have jobs that require less than 4 years of college education, but health diagnosing and treating practitioners are among the most educated workers.</p>																																									
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Technical Training</th> <th style="text-align: center;">2-Year Associates Degree</th> <th style="text-align: center;">4-Year Bachelor's Degree</th> <th style="text-align: center;">Master's/Ph.D.</th> </tr> </thead> <tbody> <tr> <td>Pharmacy Technician</td> <td>Medical Laboratory Technician</td> <td>Medical Technologist</td> <td>Physician Assistant</td> </tr> <tr> <td>Veterinary Technician</td> <td>Physical Therapy Assistant</td> <td>Registered Nurse (BSN)</td> <td>Occupational Therapist</td> </tr> <tr> <td>Radiological Technician</td> <td>Radiology Technologist</td> <td>Forensic Scientist</td> <td>Chiropractor</td> </tr> <tr> <td>Certified Nursing Assistant</td> <td>Respiratory Therapist Technician</td> <td>Microbiologist</td> <td>Dentist</td> </tr> <tr> <td>Licensed Practical Nurse</td> <td>Research Technician</td> <td>Molecular Biologist</td> <td>Physical Therapist</td> </tr> <tr> <td>Emergency Medical Technician</td> <td>Registered Nurse (RN)</td> <td>Biotechnologist</td> <td>Veterinarian</td> </tr> <tr> <td>Paramedic</td> <td>Biotechnologist</td> <td>Biomedical Engineer</td> <td>Pharmacist</td> </tr> <tr> <td>Phlebotomist</td> <td></td> <td></td> <td>Physician (Various Specialties)</td> </tr> <tr> <td>Medical Records Transcriptions</td> <td></td> <td></td> <td>Nurse Anesthetist</td> </tr> </tbody> </table>	Technical Training	2-Year Associates Degree	4-Year Bachelor's Degree	Master's/Ph.D.	Pharmacy Technician	Medical Laboratory Technician	Medical Technologist	Physician Assistant	Veterinary Technician	Physical Therapy Assistant	Registered Nurse (BSN)	Occupational Therapist	Radiological Technician	Radiology Technologist	Forensic Scientist	Chiropractor	Certified Nursing Assistant	Respiratory Therapist Technician	Microbiologist	Dentist	Licensed Practical Nurse	Research Technician	Molecular Biologist	Physical Therapist	Emergency Medical Technician	Registered Nurse (RN)	Biotechnologist	Veterinarian	Paramedic	Biotechnologist	Biomedical Engineer	Pharmacist	Phlebotomist			Physician (Various Specialties)	Medical Records Transcriptions			Nurse Anesthetist	
Technical Training	2-Year Associates Degree	4-Year Bachelor's Degree	Master's/Ph.D.																																							
Pharmacy Technician	Medical Laboratory Technician	Medical Technologist	Physician Assistant																																							
Veterinary Technician	Physical Therapy Assistant	Registered Nurse (BSN)	Occupational Therapist																																							
Radiological Technician	Radiology Technologist	Forensic Scientist	Chiropractor																																							
Certified Nursing Assistant	Respiratory Therapist Technician	Microbiologist	Dentist																																							
Licensed Practical Nurse	Research Technician	Molecular Biologist	Physical Therapist																																							
Emergency Medical Technician	Registered Nurse (RN)	Biotechnologist	Veterinarian																																							
Paramedic	Biotechnologist	Biomedical Engineer	Pharmacist																																							
Phlebotomist			Physician (Various Specialties)																																							
Medical Records Transcriptions			Nurse Anesthetist																																							
How to find out more?	<ul style="list-style-type: none"> • http://online.onetcenter.org/ • http://www.bls.gov/ooh/Healthcare/Registered-nurses.htm#tab-7 • http://www.bls.gov/ooh/healthcare/physical-therapist-assistants-and-aides.htm#tab-7 • http://www.bls.gov/ooh/healthcare/dental-hygienists.htm#tab-7 																																									