

## **Gloucester Biotechnology Academy: An Innovative Pathway to Laboratory Careers**

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Gloucester Biotechnology Academy is an intensive, hands-on training program designed to prepare high school graduates for careers as entry-level laboratory technicians. The Academy's unique mission invites young adults with a passion for discovery and creativity to pursue careers in the life sciences. The program is divided into two semesters that enable students to master cutting-edge technical skills, instrumentation, and quality control assays. Semester one focuses on fundamental molecular biology techniques, including DNA extraction, amplification, and sequencing. The second semester applies the acquired lab skills to core biomanufacturing techniques such as bacterial and mammalian cell culture, protein purification, and analytical techniques like Western Blots and ELISAs. In addition to a comprehensive scientific curriculum, the Academy provides students with valuable professional career skills including communication, teamwork, time management, critical thinking, and job search strategies. Students who successfully complete the two semesters of the lab-immersion curriculum are invited to participate in a three-month, paid-internship at some of the most prestigious companies on the North Shore and greater Boston area. Having successfully trained seven classes, the Academy has graduated nearly 80% of students enrolled and placed 90% of graduates in full-time industry careers or college to continue the study of science.