

Clinical Laboratory Science

Careers

Clinical laboratory personnel play a crucial role in the detection, diagnosis, and treatment of disease. Examination and analysis of body fluids, tissues, and cells play a crucial role in a physician's ability to provide appropriate health care to patients. Proper treatment of a patient always depends on an accurate diagnosis, and today more than ever, physicians rely on laboratory test results in order to make accurate diagnoses and then monitor the effects of prescribed therapy. While laboratory personnel have minimal patient contact, they play a critical role as part of the health care team.

Clinical laboratory personnel examine and analyze body fluids and cells, performing complex chemical, biological, hematological, immunologic, microscopic, and bacteriological tests. They collect blood samples, work with state-of-the-art computerized instrumentation and microscopes, perform chemical and microscopic analysis of urine, type and match blood for transfusion in blood banks, identify abnormal blood cells, perform many blood chemistry tests such as blood glucose and cholesterol, and identify infectious bacteria, fungus, and para-

sites causing infection by performing microbiology cultures. After testing and examining a specimen, they analyze the results and relay them to physicians. The tests performed help physicians to diagnose and treat anemias, leukemias, diabetes, renal disease, infections, cardiac arrest, and many more conditions.

Clinical laboratory personnel may work in several areas of the clinical laboratory or specialize in just one. The complexity of the tests performed, the level of judgment needed, and the amount of responsibility laboratory workers assume varies from setting to setting. While most laboratory professionals are employed in hospital laboratories, opportunities are also available in other settings such as physicians' offices, research laboratories, commercial, public health, and industrial laboratories, education, pharmaceutical and laboratory sales and service, and others. It is worth noting that the profession of Medical Laboratory Technician was rated 16th best career by 2009 Jobs Rated Almanac, which rates more than 250 careers based on salary, stress, environment, security, outlook, and physical demands.

Job Outlook

Employment of clinical laboratory workers is expected to grow 14 percent between 2006 and 2016. The volume of laboratory tests continues to increase with both population growth and the development of new types of tests.

New, increasingly powerful diagnostic tests will encourage additional testing and spur employment. Although hospitals are expected to continue to be the major employer of clinical laboratory workers, employment is expected to grow faster in medical and diagnostic laboratories, physicians' offices, and other ambulatory health care services. The federal government estimates that 138,000 new laboratory professionals will be needed by 2012 to replace technicians expected to retire, but only 50,000 will be trained by that time.

Earnings

Median annual wage and salary earnings of medical and clinical laboratory technicians were \$32,840 in May 2006. The middle 50 percent earned between \$26,430 and \$41,020. The highest 10 percent earned more than \$50,520.



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Educational Opportunities in Clinical Laboratory Science Technology at LCCC

Associate of Applied Science in Clinical Laboratory Science Technology

This program prepares its graduates for employment in hospital, urgent care, physicians offices, research, blood donation centers, veterinarian offices and industry laboratory settings. Upon completion of the accredited program, graduates are eligible to take the American Society of Clinical Pathologists (ASCP) Board of Registry or the National Certifying Agency for Medical Laboratory Personnel (NCA) national certifying examination. Those passing the examination are certified as Medical Laboratory Technician (MLT-ASCP) or Clinical Laboratory Technicians (CLT-NCA).

Other Related Opportunities in Allied Health

Certificate of proficiency

- Emergency Medicine
- Licensed Practical Nursing
- Medical Assisting

Certificate of Completion

- Phlebotomy

Associate of applied science

The successful completion of the following programs leads to the conferral of the associate of applied science degree. See curriculum guides and specific career sheets for program requirements.

- associate degree nursing
- dental hygiene
- diagnostic medical sonography
- physical therapist assisting
- radiologic technology
- surgical technology

Associate of technical studies in nuclear medicine

Nuclear Medicine is a joint program offered by Lorain County Community College and Nuclear Medicine Institute (NMI) at the University of Findlay, Findlay, Ohio.

Educational Opportunities in Allied Health through LCCC's University Partnership

Bowling Green State University

Bachelor of Science in Biology

This baccalaureate degree program is designed to provide the training in the major areas of biology while allowing sufficient flexibility to accommodate the specific interests of individual students.

Master of Health and Human Services

The program accommodates students from health and human service professions who require the skills and abilities for supervisory/managerial positions or who desire competence in health promotion. The program is structured as a weekend-college program with classes offered Friday evenings and on Saturday during the day. After completion of an academic core of course work, students may concentrate in either health promotion or administration for health and human service professions.

Youngstown State University

Bachelor of Science in Allied Health

The baccalaureate degree program leading to the bachelor of science in applied science with a major in allied health is intended to serve professional health-related, associate-degree graduates who wish to upgrade their academic credentials.

The University of Akron

Bachelor of Science in Emergency Management

The field of Emergency Management continues to develop rapidly as disasters and major emergencies become more frequent and responses to such emergencies become more complex. In addition, federal and state legislation affecting emergency planning and preparedness has increased the demand for well-educated individuals in all levels of government, business and industry. Emergency managers generally develop an area of technical expertise, which then is augmented with advanced education. The combination of Fire Protection Technology or Environmental Health and Safety with advanced courses in Emergency Management and other liberal arts courses provides our graduates with the necessary technical background and analytical skills to handle crisis situations successfully.

Bachelor of Science in Nursing (RN to BSN Completion Program)

The University of Akron nursing program prepares students to provide patient care, to direct others in giving care and to become members of comprehensive health care teams. Professional nurses also teach health care, prepare discharge plans and make referrals that can aid patients and their families. Nursing graduates work in hospitals, urgent care centers and community-based public health agencies and clinics, and provide in-home care to patients. With a combination of experience and education, Akron nursing graduates can obtain employment as clinical specialists in a variety of areas.

About Lorain County Community College

Lorain County Community College is one of Ohio's leading colleges delivering distance learning education via the Internet. The College has expanded its delivery of programs and services through the 2001 opening of the LCCC Learning Center in Lorain. Partnerships with Lorain County's K-12 school districts have also led to important developments for the community. More than 700 high school students participate in the Post Secondary Enrollment Options Program by enrolling in LCCC classes, making LCCC the state's largest community college provider of PSEO. More than 35 percent of Lorain County's top high school graduates choose to attend LCCC.

LCCC is one of Ohio's fastest growing colleges because of the variety of learning opportunities it provides. Students can choose from more than 80 educational programs. Students can complete the first half — and sometimes more — of a bachelor's degree. The University Partnership brings eight universities to the LCCC campus to offering 30 bachelor's and master's degree programs. With the University Partnership at LCCC, the College partners with the state's finest universities to bring the best in bachelor's and master's degree programs right to the LCCC campus. Students can earn degrees that get them jobs immediately. Students can upgrade, retrain and improve current life skills. Students can learn in the classroom, at home and over the Internet.

LCCC offers a complete college experience. We understand that there's more to college life than attending classes. We offer many of the programs, sports, and activities available at large four-year universities and colleges. But, students will not have to stand in line behind juniors and seniors in the classroom, on the playing field, or in leadership positions. Students can immediately act in a play, sing in a musical group, serve as editor for the college newspaper, plan social activities, compete on the playing field, or set policy as a student government member.

In addition to providing a great education for those who enter college with aspirations of a degree, LCCC helps those who have changed their career goals, who want to broaden their horizons, and who want to return to work. LCCC provides learning and training for those who want to move up but find they need new or improved skills for the kind of professional opportunities they seek.

LCCC faculty is recognized locally and nationally for their work as professors and in other areas. They all have advanced degrees and real-world experience and understand their primary responsibility at LCCC is to teach classes. Classes are small. Individual attention is plentiful.

An LCCC education, as the slogan says, leads students into "real jobs and real futures." To find out more, call (800) 995-LCCC or visit LCCC's Connections Center or the LCCC Learning Center in Lorain for all of your enrollment service needs, including admissions, registration, advising and counseling.



*Lorain County
Community College*



**The University
Partnership**

of Lorain County Community College

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