

Clinical Science/Medical Technology

This emphasis is designed to provide the basic course requirements to prepare students to meet the entrance requirements for post-baccalaureate study in clinical laboratory science in a state-licensed training laboratory and/or NAACLS Approved Program.

Clinical Laboratory Science is a helping profession offering intrinsic rewards to its members. It is the performance of laboratory tests on various body fluids and tissues to determine the presence or absence of disease, monitor response to treatment and aid in health maintenance. The clinical laboratory scientist/medical technologist performs routine tests as well as specialized tests that require complex techniques, and is often required to make independent decisions concerning the quality of laboratory results. Responsibilities include education of peers, students and subordinates, research and development, and supervision of the laboratory.

Career Outlook

The outlook for job opportunities is very good and is expected to continue. At career entry, laboratorians are most likely to be employed in a hospital laboratory; but positions are available in other health-related and scientific areas such as: private laboratories, clinic laboratories, industrial laboratories, public health agencies, health maintenance organizations, research institutions, and teaching institutions.

Obtaining Information

Several laboratories in Bakersfield and surrounding communities are licensed for training. Information concerning the requirements for California State Licensure as a Clinical Laboratory Technologist Trainee as well as a listing of all state licensed training laboratories may be obtained from:

California State Department of Health
Laboratory Field Services
2151 Berkeley Way
Berkeley, California 94704
510-873-6327
<http://www.dhs.ca.gov>

For more information on programs outside of California please contact:

American Society of Clinical Pathologists (ASCP)
<http://www.ascp.org/bor/directors/mt/sld001.htm>

or

National Accrediting Agency for Clinical Laboratory Sciences
8410 West Bryn Mawr Avenue Suite 670
Chicago, Illinois 60631
773-714-8880
<http://www.NAACLS.org/accreditation>

Requirements for Licensure/Certification

Minimal eligibility requirements for state licensure and national certification examinations include completion of a baccalaureate degree, one year of training in a state-approved clinical laboratory, and a specified number of academic units in each of the following subject areas:

Chemistry:	24 quarter units, including instruction in biological and analytical chemistry.
Biology:	27 quarter units, including instruction in immunology, hematology, and medical microbiology, which may include bacteriology, mycology, virology, and parasitology.
Physics:	4.5 quarter units. Must include instruction in the principles of light and electricity.
Mathematics:	one college-level course.

Clinical Laboratory Science Track

This track provides the above basic courses for entry into post-baccalaureate study in clinical laboratory science. The course list below also satisfies the major requirements for a Bachelor of Science (B.S.) degree in Biology with a minor in Chemistry.

- A. Biology Courses:
 - 1. Biology 201, 202, 203
 - 2. Biology 304, 305, 306, 310, 470 and 490
 - 3. Biology 312 Microbiology
Biology 314 Medical Microbiology
Biology 317 Medical Mycology
Biology 318 Immunology
Biology 319 Hematology
Biology 357 Human Physiology (recommended)
400 Level Courses (Biology 430 or 455 recommended)
- B. Chemistry 211, 212, 213, 331, 332, 340 and 350.
- C. Physics 201, 202, 203.
- D. Mathematics 191 or 211.

It is important to note that the major requirements for the Biology B.S. degree may be obtained by taking fewer courses than listed. Furthermore, various courses can be substituted for the major. Details for these adjustments can be provided by appropriate Biology advisors.

For more information contact:
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