

JOB DESCRIPTION

Clinical laboratory scientists develop data on the blood, tissues, and fluids in the human body by using precision instruments such as microscopes and automatic analyzers. Clinical laboratory scientists assume responsibility for, and are held accountable for, accurate results. They establish and monitor quality control programs and design or modify procedures as necessary. Tests and procedures are performed or supervised by clinical laboratory scientists in the clinical laboratory center in the major areas of hematology, bacteriology, serology, immunology, clinical chemistry, blood banking, urinalysis, mycology, and parasitology.

EMPLOYMENT CHARACTERISTICS

Most clinical laboratory scientists are employed in hospital laboratories. Others are employed in physicians' private laboratories, clinics, the armed forces, city, state, and federal health agencies including crime labs, industrial medical laboratories, pharmaceutical houses, and public and private research programs dedicated to the study of specific diseases.

Clinical laboratory scientists generally work a 40-hour week. Beginning salary range is between \$39,000 and \$45,000 while the range for five years experience is \$44,000 to \$53,000. Salaries vary depending on employer and geographic location. The employment outlook is expected to be favorable with 100 percent placement of graduates.

THE CLINICAL LABORATORY SCIENCE CURRICULUM

The Clinical Laboratory Science curriculum involves 3 years (96 credit hours) of study in the College of Arts and Sciences, plus 12 consecutive months of practical and didactic training in clinical laboratory science at UT Medical Center in Knoxville. The 3+1 program leads to a Bachelor of Science degree with a major in Clinical Laboratory Science. The program is accredited by NAACLS, <http://www.naacls.org>, phone (773) 714-8880; fax (773) 714-8886. A Certificate of Clinical Training will be awarded by UT Medical Center in Knoxville. The student will be eligible for examination by the Board of Registry of the American Society of Clinical Pathologists, all other national registries, and state laboratory licensure.

Admission to the clinical year is at the discretion of the Admissions Committee of the Clinical Laboratory Science Program at the UT Medical Center in Knoxville; admission to the University of Tennessee, Knoxville, and completion of a pre-clinical laboratory science program in the College of Arts and Sciences does not assure admission to the clinical phase of the Clinical Laboratory Science Program.

The following is a suggested sequence of courses. The College of Arts and Sciences *Curriculum Guide and Advising Handbook* contains course options for foreign language, social sciences, humanities, history, and upper-level distribution. All students pursuing a degree from UT must complete UT's general education requirements.

FRESHMAN	HOURS	CREDIT
English 101-102 (see Note 1)	6	6
Chemistry 120-130 (see Note 1)	8	8
Biology 130, 140 (see Note 2)	8	8
Foreign Language - Intermediate Level (see Note 3)	6	6
Mathematics (see Note 4)	6	6
	34	

SOPHOMORE

Chemistry 110 (see Note 5)	4
Biochemistry and Cellular and Molecular Biology 230	5
Biology 240	4
Microbiology 310-319	5
Humanities (one course from List A or B)	3
Non-U.S. History	6
Communication Studies 210 or 240	<u>3</u>
	30

JUNIOR

Biochemistry and Cellular and Molecular Biology 310 (see Note 5)	4
Microbiology 420-429	5
Microbiology 430 (offered fall only)	3
Social Science	6
Humanities (one course from List A, B, or C)	3
Upper Level Distribution (one course from List A and one course from List B)	6
Writing Intensive Course (see Note 6)	<u>0-3</u>
	27-30

TOTAL: 91 semester hours (minimum)

SENIOR

Clinical Laboratory Science course of study at UT Medical Center in Knoxville (12 month program)

TOTAL: 120 semester hours (minimum)

Note 1: Or equivalent honors courses.

Note 2: Students who have previously completed Biology 101 and 102 for their lab science requirement may substitute these two courses for Biology 130.

Note 3: This requirement assumes a student has had enough language background in high school to begin the intermediate language sequence at UTK.

Note 4: One of the following math sequences is required for pre-clinical laboratory science students: Math 115-125, Math 123-125, Math 141-142, Math 151-152. Math placement depends on high school courses and grades, ACT scores, the math placement exam, and BA/BS requirements.

Note 5: Students who have completed Chemistry 350-360-369 may substitute it for Biochemistry 310 and Chemistry 110.

Note 6: Courses which can satisfy the writing intensive course requirement are listed in the undergraduate catalog.

PROGRAM PLANNING

Program planning for the pre-clinical laboratory science student is essential. Students should develop their programs carefully in order to present a well-rounded pre-professional program. Admission into the clinical laboratory science program is fairly competitive; therefore, students are strongly encouraged to plan an alternative program in the event admission is not achieved. Please note that Classics 273 *Medical Terminology* is highly recommended as an elective. In addition, one year of U.S. history must have been completed in high school or college prior to graduation from the clinical laboratory science program.

A 4+1 option is available to graduates who have a BS degree with 16 semester hours of Biology (including a Microbiology class & Immunology); 16 semester hours of chemistry (including general and organic or biochemistry) and one math course.

Pre-health advisors are available in Arts and Sciences Advising Services, 1 Alumni Memorial Building, to help students plan programs with maximum flexibility; however, in the final analysis, it is the student's responsibility to determine the program which will best satisfy his/her needs.

ALPHA EPSILON DELTA (AED)

Alpha Epsilon Delta is a pre-health honor society that seeks to provide information and opportunities for students with an interest in the health professions. The Tennessee Beta Chapter of AED is active at The University of Tennessee. AED activities include information sessions on preparing to apply to professional schools, local speakers from the health community, trips to Tennessee medical schools and health centers, and service activities. The schedule of meetings is available at <http://web.utk.edu/~aed/>.

Requirements for membership include three terms of college (at least one at UTK), a cumulative GPA of 3.2, a science GPA of 3.2, and participation in AED sponsored events and meetings. Students interested in joining AED should apply for membership at the beginning of fall term. Applications are available in Arts and Sciences Advising Services, 1 Alumni Memorial Building, or on the AED website.

Any pre-health student, regardless of membership, may participate in the programs sponsored by AED. Pre-health students wishing to receive notification of pre-health activities and AED events should send an e-mail to mhoskins@utk.edu to request to be added to the pre-health distribution list.

SPECIAL SEMINARS FOR PRE-HEALTH STUDENTS

During each fall semester, Arts and Sciences Advising Services offers a one credit hour course entitled *Introduction to Health Care Delivery*. This one credit hour seminar course is taught in the Wood Auditorium of UT Hospital. The course provides weekly seminars on topics such as managed care, family practice, ethical issues in medicine, malpractice, allied health programs, and many others. The course is listed in the timetable under Interdisciplinary Programs 100 and is open to any interested student.

During the spring and fall semesters, the clinical laboratory science program offers a two credit hour course entitled *Clinical Laboratory Science*. The purpose of this course is to introduce students to the career of a clinical laboratory scientist. The course can be found in the timetable under Clinical Laboratory Science 100 and is open to any interested student.

PRE-PROFESSIONAL FILE

During the sophomore year, students should attend a pre-professional file group meeting to learn about setting up the pre-professional file. Group meetings are scheduled weekly in Arts and Sciences Advising Services, 1 Alumni Memorial Building. In the meeting, students are given information on pre-professional evaluations and other aspects of the professional school application process.

The most important aspect of the file is the letters of evaluation you request from faculty members who have known you as a UT student. Two of the evaluations should come from faculty members teaching in science-based disciplines. Be sure that you have become well acquainted with your professors prior to requesting the evaluations. Once you have started your file, keep in touch with the health professions secretary to periodically check on your file and to provide address and phone number updates.

APPLICATION TO UT MEDICAL CENTER IN KNOXVILLE

The following application materials need to be completed and returned to Sharon Wierwille, UT Medical Center, before the application deadline: formal application, university transcripts, proposed course outline, and degree audit report (DARS). DARS reports are available on-line at <https://darsweb.utk.edu/>.

A personal interview will be required of each applicant. All interviews are arranged by invitation from the Committee on Admissions at UT Medical Center in Knoxville.

The Clinical Laboratory Science Program at UT Hospital admits 12 students annually with the class beginning in January of each year. The length of the program is 12 months. The average GPA of admitted students is 3.0. The deadline for the class is May 15. Interviews for these applicants are held in June, and admitted students are notified by July 15.

Students should send transcript updates each semester until matriculation. Failure to do so will be considered a cancellation of application.

ADDITIONAL INFORMATION IS AVAILABLE FROM:

Sharon Wierwille, MSMT (ASCP) SC
Program Director
University of Tennessee Medical Center
1924 Alcoa Highway
Knoxville, TN 37910-6999
(865) 305-9087
FAX (865) 525-5762
swierwille@mc.utmck.edu
http://www.utmedicalcenter.org/health_professionals/educational_services/medical_technology_program/

Dr. Jeff Becker, Microbiology Department
F339 Walters Life Sciences
University of Tennessee
Knoxville, TN 37996-0845
(865) 974-3006
jbecker@utk.edu

Arts and Sciences Advising Services
1 Alumni Memorial Building
The University of Tennessee
Knoxville, TN 37996-1325
(865) 974-4481
<http://www.artsci.utk.edu/advising/>

American Society of Clinical Pathologists
33 West Monroe, Suite 1600
Chicago, IL 60603-5617
(800) 267-2727
<http://www.ascp.org/>

National Accrediting Agency for Clinical Laboratory Sciences
Suite 720
5600 N. River Road
Rosemont IL 60018
(773) 714-8880
info@naaccls.org

The information in this bulletin is subject to revision. Students are strongly encouraged to consult with a health professions advisor on a regular basis.

THE UNIVERSITY OF TENNESSEE, KNOXVILLE EEO/TITLE IX/SECTION 504 STATEMENT

The University of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services.