

## WHAT IS CYTOTECHNOLOGY AND HISTOTECHNOLOGY?

Cytotechnology is the microscopic study of cells which have been shed, scraped, or aspirated from body tissues. A cytotechnologist is a highly skilled laboratory professional. These specialists prepare samples obtained from various body areas for examination by using staining techniques which make the specimen for visible. Cytotechnologists are trained to recognize minute abnormalities in the color, size, and shape of the cell structures.

The cytotechnologist is responsible for the first microscopic evaluation of the cytologic material, determining the presence or absence of abnormal or malignant cells and providing a preliminary diagnosis in cases which warrant further evaluation by a pathologist. As a result of cytologic findings, physicians are often able to diagnose and treat cancer before symptoms occur or before it can be detected by other methods.

Histotechnology is another medical laboratory specialty that is important in the detection, diagnosis, and treatment of diseases. The histotechnologist uses specific knowledge and technical skill to prepare human and animal tissues for microscopic examination by a pathologist. They work quickly with precision and accuracy to perform the necessary and complex procedures to process, embed, and then cut tissues sections. These thin sections are mounted on slides and stained for microscopic evaluation by pathologists. Histotechnologists also help select, implement, and evaluate new procedures and instruments in the laboratory and performance maintenance on the equipment.

## EMPLOYMENT CHARACTERISTICS

Career opportunities are numerous. The number of positions available currently exceeds the number of practicing cytotechnologists and histotechnologists. Some work with pathologists in hospitals and private laboratories, while others work in university medical centers and in federal or state government laboratories. Aside from practice in a diagnostic clinical laboratory, cytotechnologists/histotechnologists with experience may choose to take positions in education, research, or administration. Advanced degrees in areas of special interest enable individuals to further their knowledge and increase opportunities for advancement. Beginning annual salary for cytotechnologists and histotechnologists with Bachelor of Science degrees is about \$41,510\*. Those with experience and/or in supervisory positions can expect an annual salary of about \$60,520\*. Some prefer to teach or work on research projects. Employment opportunities upon completion of educational programs are varied and numerous.

## PRE-CYTOTECHNOLOGY/HISTOTECHNOLOGY PROGRAM

Cytotechnology and Histotechnology, a program in the Department of Clinical Laboratory Sciences within the College of Health Professions, leads to the Master of Cytopathology Practice degree (MCP). The professional program at UT Memphis consists of two years of didactic and clinical coursework.

Upon successful completion of an educational program approved by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), an individual is eligible to take an examination for both cytotechnology and molecular pathology given by the Board of Registry of the American Society of Clinical Pathologists. An additional Specialist in Cytotechnology certification is available for persons with advanced degrees and/or experience. Cytotechnologists are required to be licensed in some states, including Tennessee. Individuals who are

certified can apply for licensure through the Laboratory Licensing Board in Tennessee.

Upon successful completion of an educational program approved by the National Accreditation Agency for Clinical Laboratory Science (NAACLS), an individual is eligible to take the certification examination in Histotechnology given by the Board of Registry of the American Society of Clinical Pathologists.

Admission to the MCP program at the UT Health Science Center requires completion of 85 semester hours of specified academic work from an accredited college or university. Students wishing to prepare for professional training at institutions other than UT Health Science Center should consult the catalogs of those institutions to determine the specific preparation required for admission.

### Prerequisite courses for admission are as follows:

Subject	Semester Hrs
English 101, 102.....	6
English Literature or Communication Studies 210 ..	3
Biology 150 (See Note 1).....	4
Biology 160, 159.....	5
Chemistry 120, 130.....	8
Social Sciences (See Note 2) .....	6
Mathematics or Statistics (See Note 3).....	3
Advanced Science (See Note 4).....	15
Electives (See Note 5).....	35
<b>Total Semester Hours: 85</b>	

Note 1: Biology 101 and 102 may substitute for Biology 150.

Note 2: Any two University General Education Social Sciences satisfy the requirement, but sociology, anthropology and psychology are recommended.

Note 3: Any college level math course satisfies this requirement.

Note 4: Recommended courses include: BIOL 240 *General Genetics*, BIOL 220/229 *General Microbiology & Lab*, BCMB 330 *Mechanisms of Development*, BCMB 412 *Molecular Biology & Genomics*, MICR 330 *Immunology*, BCMB 401 *Biochemistry I*.

Note 5: Electives should be chosen from coursework satisfying the University General Education Requirement or an alternate degree program. Recommended courses include: art, art history, music appreciation, computer science, and ethics.

Applicants must have a minimum grade point average of 3.0 **or** a minimum grade point average of 2.5 with a satisfactory score on the Graduate Record Exam (GRE) within the previous five years. A minimum grade of C is required in all courses required for admission. Courses of minimal academic contact, e.g., physical education, one-hour military science, applied music

\* U.S. Department of Labor Bureau of Labor Statistics

and art courses, etc., will not be accepted toward meeting requirements for admission or graduation. Nontraditional course credit such as correspondence, proficiency, extension, CLEP and AP may be limited in both amount and content and should not be scheduled without prior written approval from the College of Health Professions.

**RESIDENCY POLICY FOR THE  
CYTOTECHNOLOGY/HISTOTECHNOLOGY PROGRAM**

UT Health Science Center is a state-supported institution and by legislative intent is required to give preference to residents of Tennessee before admitting out-of-state applicants. The non-resident applicant who is the son or daughter of an alumnus of UT Health Science Center and is otherwise qualified is considered “in-state” for admission purposes only.

**PROGRAM PLANNING**

The importance of program planning for pre-cytotechnology/Histotechnology students cannot be overstressed. These students should develop their programs in such a way that they are able to adapt to alternative programs in the event admission into the cytotechnology/histotechnology program is not achieved.

Pre-health advisors are available in Arts and Sciences Advising Services, 313 Ayres Hall, 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 or her particular needs.

**APPLICATION TO UT HEALTH SCIENCE CENTER**

Students are admitted to the cytotechnology/histotechnology program in August of each year. The deadline for submitting an application and all supporting materials is January 30 prior to the August starting date. At the time of application, each applicant is required to have the registrar of every college attended send an official transcript directly to the registrar at UT Health Science Center.

Transcripts for UTK students can be requested online through MyUTK or through the Registrar website at [onestop.utk.edu/transcripts](http://onestop.utk.edu/transcripts).

Applicants are also required to provide an essay which describes the student’s reason for choosing cytotechnology/histotechnology as a career and for choosing the program at the UT Health Science Center. In addition, students whose GPA’s are less than a 3.0 are required to submit a score from the Graduate Record Exam (GRE).

Applications are accepted online at [www.uthsc.edu/admiss](http://www.uthsc.edu/admiss).

**Application Deadlines and Selection Dates**

<u>Class Size</u>	<u>Entering Date</u>	<u>Length of Program</u>	<u>Avg GPA 2016 Admits</u>
15	August	2 years	3.20

Application deadlines: early January 30, regular April 15, late June 15.

For further information on admissions statistics and required GPA, please contact the cytotechnology program director listed at right.

**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 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 medical community, trips to Tennessee medical schools and health centers, and service activities. The schedule of meetings is available on the internet at [aedutk.wixsite.com/aed-utk](http://aedutk.wixsite.com/aed-utk).

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 (313 Ayres Hall) 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 email to [asadvising@utk.edu](mailto:asadvising@utk.edu) to request to be added to the pre-health distribution list.

**ADDITIONAL INFORMATION IS AVAILABLE FROM THE FOLLOWING:**

Dr. Barbara L. DuBray-Benstein, Ph.D.  
**The University of Tennessee, Memphis**  
 Department of Clinical Laboratory Sciences  
 930 Madison Ave., Suite 664  
 (901) 448-6304  
[bbenstein@ukthsc.edu](mailto:bbenstein@ukthsc.edu)  
[www.uthsc.edu/health-professions/cls/ct](http://www.uthsc.edu/health-professions/cls/ct)

**Arts and Sciences Advising Services**  
 313 Ayres Hall  
 The University of Tennessee  
 Knoxville, TN 37996-1325  
 (865) 974-4481  
[www.artsci.utk.edu/advising/](http://www.artsci.utk.edu/advising/)

**American Society of Cytopathology**  
 100 West 10<sup>th</sup> St., Suite 605  
 Wilmington, DE 19801  
 (302) 543-6583  
[www.cytopathology.org](http://www.cytopathology.org)

**American Society for Clinical Pathology**  
 33 West Monroe St., Suite 1600  
 Chicago, IL 60603  
 (312) 541-4999  
[www.ascp.org](http://www.ascp.org)

**American Society for Cytopathology**  
 1500 Sunday Drive, Suite 102  
 Raleigh, NC 27607  
 (919) 861-5571  
[www.asct.com](http://www.asct.com)

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

ADMISSION TO THE CYTOTECHNOLOGY/ HISTOTECHNOLOGY PROGRAM IS AT THE DISCRETION OF THE ADMISSIONS COMMITTEE OF THE COLLEGE OF HEALTH PROFESSIONS. ADMISSION TO THE UNIVERSITY OF TENNESSEE, KNOXVILLE, AND COMPLETION OF THE PRE-CYTOTECHNOLOGY PROGRAM IN THE COLLEGE OF ARTS AND SCIENCES DOES NOT ASSURE ADMISSION TO UT HEALTH SCIENCE CENTER.

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.