

The University of
KANSAS



KU'S MAIN CAMPUS IN LAWRENCE

► **KU'S UNIVERSITY-BASED CLINICAL LABORATORY SCIENCE PROGRAM.** There are about 234 clinical laboratory science programs across the nation, but only about 125 programs based at universities. In eastern Kansas, KU has the only university-based clinical laboratory science program, so KU graduates have a better grounding in the theoretical aspects of the field than graduates of area programs based at hospitals.



OUTSTANDING PROGRAMS



KU MEDICAL CENTER IN KANSAS CITY



STUDY ABROAD

THE UNIVERSITY OF KANSAS MEDICAL CENTER. The KU Medical Center is a tertiary care facility, so students regularly have opportunities to acquire first-hand knowledge of medical conditions that other facilities see only infrequently. This means that a KU education will prepare you better to deal with changes and advancements in the field and to fill a management or supervisory role.



UNDERGRADUATE RESEARCH



Breadth of Education



EXCELLENT FACULTY AND STUDENTS



UNDERGRADUATE STUDY

Clinical Laboratory Science

(with concentrations in clinical or molecular biotechnology)

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A department of the School of Allied Health 2003-05

Is clinical laboratory science for me? To find out, ask yourself: Do I like troubleshooting? Is my approach to solving complex problems imaginative and original? Do the challenges and rewards of medicine and science intrigue me? Am I a methodical and analytical thinker? Do I enjoy puzzles? Do biology, chemistry, and microbiology fascinate me? Do I want to use my interest in science to build a career?

What is clinical laboratory science? Clinical laboratory science is the health-care field that involves performing and interpreting laboratory tests on body fluids and tissues. Clinical laboratory scientists assist other members of the health-care team to detect and diagnose diseases, using a variety of investigative laboratory instruments such as microscopes and automatic analyzers and considering a wide range of test results.

There are five major specialties in clinical laboratory

science: clinical chemistry, clinical microbiology, immunohematology (cross-matching of blood for transfusion), hematology (diagnosing diseases of the blood, such as hemophilia and sickle cell anemia), and immunology (diagnosing diseases and dysfunctions of the immune system).

What is molecular biotechnology? Molecular biotechnologists perform analyses of nucleic acids, proteins, and cell cultures in clinical and research settings. Clinical applications

include the analysis of infectious diseases, inherited diseases, cancer, and forensics. In a research setting, one might participate in basic and applied studies of biological systems and macromolecular structure and function, using genomic and proteomic approaches.

How do I get into the program? The Bachelor of Science (B.S.) degree requires three years of preparatory work in the College of Liberal Arts and Sciences on the Lawrence campus or at another institution and one year of professional course work at KU Medical Center in Kansas City.

Admission to the professional program is competitive. You must have at least

78 credit hours with a minimum overall grade-point average of 2.0. Your grade-point average in science courses, such as chemistry, biology, and microbiology, must be at least 2.3.

Contact the department for advising as early in your college work as possible. When you are ready to apply to the professional program, the department will provide an application. Submit it with a transcript and three letters of recommendation by October 1 of the year before you plan to begin professional study.

The admissions committee requires an interview with each applicant. If you are accepted, you will begin the professional program at the beginning of June.

What will my student workload be like? You will need a minimum of 124 credit hours to earn the B.S. degree. During your first three years on the Lawrence campus or at another institution, you will take an average of 15 hours, or four or five courses, a semester.

During your year of professional study — a full 12 months — you will earn a total of 46.5 more credit hours. The curriculum at the beginning of the professional year at KUMC is a series of lectures and laboratory courses. During the second half of the year, you will spend most of your time working in clinical (clinical concentration) or research labs (molecu-

lar biotechnology concentration) and taking Web-based theory courses.

Can I get a scholarship? For students in the professional program, the department administers several need- and merit-based scholarships. The department has information about financial aid offered by national clinical laboratory science professional associations. You will get more information in a packet the department sends to admitted students, or you can contact the department.

For information about scholarships based on academic merit, diversity, major, and residence, write or call KU's Office of Admissions and Scholarships,

Photography by University Relations staff: R. Steve Dick, Kelly Heese, Doug Koch, David McKinney, and Elissa Monroe. Study abroad photo by Ted Noravong. Drawing of Spooner Hall courtesy of School of Architecture and Urban Design.

KU Visitor Center, 1502 Iowa St., Lawrence, KS 66045-7576, (785) 864-3911, www.admissions.ku.edu.

For information about grants, loans, and need-based financial aid, write or call KU's Office of Student Financial Aid, Strong Hall, 1450 Jayhawk Blvd., Room 50, Lawrence, KS 66045-7535, (785) 864-4700.

At the Medical Center, write or call the Office of Student Financial Aid, 4003 Student Center, Mail Stop 4005, KU Medical Center, 3901 Rainbow Blvd., Kansas City, KS 66160, (913) 588-5170.

What can I do with a clinical laboratory science degree? With a B.S. degree from KU, you will be qualified to take the national examinations for certification as a clinical laboratory scientist (clinical concentration) or specialist

in molecular biology (molecular biotechnology concentration). You must have the B.S. degree to earn certification, which will increase your earning power and broaden your career options.

Most clinical laboratory scientists work in hospital laboratories, but graduates also find work in hospital or industrial quality assurance, laboratory administration, veterinary medicine, food processing service, the plastics industry, adult education, utility plants, product development, pharmaceutical manufacturing, reference or independent laboratories, home health care, laboratories in doctors' offices, laboratory sales, environmental services, forensic labs, technical writing, blood-banking, and dozens of other settings.



Clinical students read microbiology plates for pathogens.

Sharon Harbauer/KUMC University Relations



A molecular biotechnology student performs an enzyme assay.

Sharon Harbauer/KUMC University Relations

Your first year's pre-clinical laboratory science schedule may look something like this:

First semester	Hours
ENGL 101 Composition	3
BIOL 150 Principles of Molecular and Cellular Biology	4
MATH 101 Algebra	3
Social sciences elective	3
Other elective	2
TOTAL	15
Second semester	Hours
ENGL 102 Composition and Literature	3
BIOL 305 Principles of Human Physiology	3
World culture or social sciences elective	3
Humanities elective	3
Other elective	3
TOTAL	15

Where can I get more information? To find out more about advising, admission, or other aspects of the program, write or call the Department of Clinical Laboratory Sciences, 1014 the University of Kansas Hospital, Mail Stop 4049, KU Medical Center, 3901 Rainbow Blvd., Kansas City, KS 66160, (913) 588-5220, e-mail: vward@kumc.edu, <http://alliedhealth.kumc.edu/programs/cls.htm>.

What if my interests change? Maybe you would like to pursue a degree from another department in the School of Allied Health,

such as health information management, respiratory care, or cytotechnology (the detection and diagnosing of cancer).

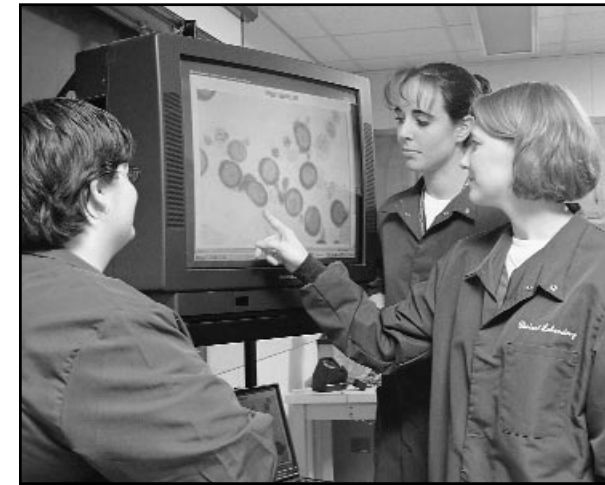
You might be interested in a degree in another health-care field, such as medicine or nursing. Clinical laboratory science is a good first degree to pursue if you are considering medical school. Or you may decide on a degree in a pure science, such as chemistry, biology, or microbiology.

KU offers hundreds of programs. You will take courses in many subjects. One of them will lead you to a major and a career.



A molecular biotechnology student loads a DNA sequencing cell.

Sharon Harbauer/KUMC University Relations



Clinical students identify bone marrow cells.

Sharon Harbauer/KUMC University Relations

Why should I choose KU's clinical laboratory science program?

► **PREPARATION FOR CERTIFICATION.** You must have a bachelor's degree to be eligible to earn national certification as either a clinical laboratory scientist or a specialist in molecular biology. A B.S. degree from KU will give you a competitive advantage, because at the end of your senior year, you will take a comprehensive exam that is modeled after the national certification exam.

► **KU ENRICHMENT.** The overall quality and breadth of your education is one great reason for coming to KU. KU's faculty and variety of courses, both in Lawrence and at the Medical Center, attract national attention. You will choose from hundreds of lectures, plays, concerts, and activities to make your undergraduate years more worthwhile and rewarding. Concerts and shows in KU's Lied Center Series bring many of the finest national performers to the Lawrence campus. You will meet students and faculty members whose diverse traditions and cultures will broaden your experiences.

If you would like information on other majors at KU, contact the University of Kansas, Office of Admissions and Scholarships, KU Visitor Center, 1502 Iowa St., Lawrence, KS 66045-7576. Telephone (785) 864-3911; fax: (785) 864-5017. E-mail: adm@ku.edu Web site: www.admissions.ku.edu
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