The mission of the Division of Clinical and Reproductive Sciences is to help
the College of Health Sciences achieve its mission through creative leadership and productivity in clinical laboratory science education, re-
search, and service.

The undergraduate Clinical Laboratory Sciences (CLS) program at the
University of Kentucky prepares Clinical Laboratory Scientists who perform laboratory tests that aid in the prevention, diagnosis and treatment of
disease. CLS graduates receive training in four major disciplines of the
clinical laboratory: immunohematology (blood-banking), clinical chemistry, hematology, and microbiology. Additional course work includes phle-
obotomy, CSL education or clinical education, and laboratory management.

CLS graduates are employed in a variety of health care settings including
hospital and private laboratories, clinics, pharmacetical companies, re-
search institutions, the armed forces, public health centers, and veterinary
clinics. In addition to performing clinical laboratory tests, CLS graduates also
serve as consultants, managers, sales and technical representatives, and
educators.

Admission
Admission into the Clinical Laboratory Sciences professional program
requires:

- minimum cumulative grade-point average of 2.75 for all courses taken
at institutions of higher education;
- three professional letters of recommendation;
- personal interview scores based on interviews with two CLS faculty
members. The interview will focus on identifying the applicant’s
strengths, commitment to, and knowledge of the profession;
- completion of the preprofessional requirements.

The application deadline for the 3 + 1 Program is April 1.

Preprofessional Requirements
The preprofessional program consists of (1) courses that fulfill the University Studies Program and (2) prerequisite courses required by the CLS profes-
sional program. The University Studies Program (USP) is a program of
required subjects that all students enrolled at the University of Kentucky
must complete in order to receive a baccalaureate degree. See “University Studies Program” on pages 83-87 of the 2009-2010 UK Bulletin for the
complete University Studies requirements.

Prerequisite Course Requirements
2 semesters of general chemistry with laboratory
1 semester general microbiology with laboratory
1 semester of human physiology (or combined course in physiology and
anatomy)
1 semester of statistical methods
1 semester of biochemistry (may take CLS 822 to fulfill this requirement)
1 semester of immunology (may take CLS 835 to fulfill this requirement)

Professional Course Requirements
CLS 832 Basic Clinical Chemistry .......................... 1
CLS 833 Basic Hematology .......................... 1
CLS 836 Laboratory Organization and Management .......................... 3
CLS 838 Basic Immunohematology .......................... 1
CLS 843 Advanced Clinical Hematology and Body Fluid Analysis .... 3
CLS 844 Advanced Clinical Chemistry .......................... 3
CLS 848 Molecular Techniques and Advanced Immunohematology .... 3
CLS 851 Basic Clinical Microbiology .......................... 1

CLS 856 Advanced Clinical Microbiology .......................... 4
CLS 860 Blood Collection .......................... 1
CLS 881 Immunohematology Practicum .......................... 5
CLS 882 Practicum in Clinical Chemistry .......................... 5
CLS 883 Practicum in Clinical Hematology .......................... 5
CLS 884 Practicum in Clinical Microbiology .......................... 5
CLS 890 Laboratory Investigation .......................... 3
CSC 528 Laboratory Techniques for Clinical Sciences Students .... 2

Subtotal: Professional Course Hours .......................... 46

3 + 1 Program
The 10-month CLS professional program is offered on the Lexington
campus of the University of Kentucky and encompasses the fourth year of
study in the baccalaureate degree program. The program provides sequen-
tial instruction in laboratory medicine for the student who has been well
prepared in science and mathematics during the first three years of
university study. Through lecture, laboratory, demonstrations and clinical
practica, students are prepared for clinical practice in the modern, auto-
mated laboratory. Graduates are eligible to take national certification
examinations as Clinical Laboratory Scientists/Medical Technologists.

The program begins in the summer prior to the final year of study. During
the summer session, students are introduced to the clinical laboratory, and
practice basic level clinical laboratory techniques in student laboratories.
Students complete intense courses in the principles and practices of basic
hematology and clinical chemistry. Students then complete practica in
clinical chemistry and hematology laboratories while supported by faculty
lectures and demonstrations in advanced topics in these disciplines.
Clinical practica are structured to sequentially present increasingly complex tasks.
Students take a management course in the fall that introduces them to
laboratory structure and regulations.

Following winter break, students complete intense courses in the principles
and practices of immunohematology and clinical microbiology. After com-
pleting lectures which cover basic practice in immunohematology and
clinical microbiology, students complete practica in microbiology and immu-
nohematology laboratories while supported by CLS faculty lectures and
demonstrations. Concurrent with presentation of didactic materials and
skills instruction, students integrate the knowledge that has been gained
throughout the professional year by participating in an exploration of critical
pathways and evidenced-based decision-making in the clinical laboratory.
Clinical practica may be completed at the University of Kentucky Hospital
clinical laboratories and/or clinical laboratories throughout the state that
have a current clinical affiliation agreement with the CRS Division in the
College of Health Sciences. Throughout the year, students must attend
classes on the Lexington campus, including all basic level instruction. Web
courses for advanced level didactic courses that coincide with the clinical
practica may also include some on-campus meetings.

Students holding baccalaureate degrees in a health-related science includ-
ing biology, chemistry, biochemistry, medical biology, immunology, anatomy,
physiology, nutritional sciences or health sciences education may enroll in
the CLS professional program and earn a CHS Certificate of completion. The
required prerequisites must be completed before applying for admission.
Upon successful completion of the 10-month professional program the
student will receive a CHS Certificate of Completion in CLS and be eligible
for a national registry examination.

2009-2010 Series
Graduate Degrees in Clinical Sciences

The Clinical Sciences graduate programs offer a unique multidisciplinary masters and doctorate programs that address the rapidly changing health care environment and selected evolving clinical science disciplines. This program of study provides the opportunity for advanced education and career enhancement for health professionals in the clinical sciences. The master’s degree provides a foundation in advanced clinical sciences. Students may specialize in Reproductive Laboratory Sciences.

For additional information, refer to: www.mc.uky.edu/cls/. Or contact:

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