

Medical Laboratory Science

College of
Health Sciences

The undergraduate Medical Laboratory Science (MLS), formally Clinical Laboratory Sciences (CLS) program prepares medical laboratory scientists who perform laboratory tests that aid the diagnosis, prevention, prognosis, and treatment of disease. MLS graduates are employed in a variety of health care settings including hospital and private laboratories, clinics, pharmaceutical companies, research institutions, the armed forces, and public health centers. In addition to performing laboratory tests, MLS graduates can serve as consultants, managers, sales and technical representatives, and educators.

The MLS Program is offered at the Lexington campus and at the Center of Excellence in Rural Health campus in Hazard, Kentucky. Within the MLS Program there are two tracks leading to a B.H.S. with a major in Medical Laboratory Science. The **Traditional Track** is for students who have completed general education courses and have met the program preprofessional requirements. (This includes transfer students and students seeking a second bachelor's degree.) The **MLT to MLS Track** is only applicable to those who have earned an associate degree from a Medical Laboratory Technician (or Clinical Laboratory Technician) Program. (This track is offered via distance learning.)

Traditional Track Admission

The MLS program has selective admissions and students are admitted to the professional program on a competitive basis. Applicants must have completed all UK Core requirements and preprofessional requirements prior to entering the program. Admission is based on cumulative grade-point average (GPA) for all courses taken at institutions of higher education (2.5 or higher on a 4.0 scale), cumulative GPA for preprofessional courses, and recommendation scores. Interviews may also be used in the admissions process. Applicants must submit an application and three recommendation forms.

The application deadline is **March 1** for the Lexington Campus and **May 1** for the Hazard Campus.

The Curriculum

A total of 120 credits (including 60 professional program credits, preprofessional credits, UK Core requirements and the Graduation Composition and Communication requirement credits) is required to receive the Bachelor of Health Sciences with a major in MLS degree.

UK Core Requirements

See the *UK Core* section of the 2017-2018 *Undergraduate Bulletin* for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity

Choose one course from approved list 3

II. Intellectual Inquiry in the Humanities

Choose one course from approved list 3

III. Intellectual Inquiry in the Social Sciences

PSY 100 Introduction to Psychology 4

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences

CHE 105 General College Chemistry I 4

CHE 111 Laboratory to Accompany General Chemistry I 1

V. Composition and Communication I

CIS/WRD 110 Composition and Communication I 3

VI. Composition and Communication II

CIS/WRD 111 Composition and Communication II 3

VII. Quantitative Foundations

MA 123 Elementary Calculus and Its Applications 4

VIII. Statistical Inferential Reasoning

STA 296 Statistical Methods and Motivations 3

IX. Community, Culture and Citizenship in the USA

Choose one course from approved list 3

X. Global Dynamics

Choose one course from approved list 3

Subtotal: UK Core hours 34

Graduation Composition and Communication Requirement (GCCR)

MLS 463 Immunohematology 3

MLS 470 Clinical Correlations 3

Graduation Composition and Communication Requirement hours (GCCR) 6

Preprofessional Course Requirements

CHE 107 General College Chemistry II 3

CHE 113 Laboratory to Accompany General Chemistry II 2

BIO 208 Principles of Microbiology 3

BIO 209 Principles of Microbiology Laboratory 2

PGY 206 Elementary Physiology 3

BIO 148 Introductory Biology I

or

BIO 152 Principles of Biology II 3

BIO 155 Laboratory for Introductory Biology I 1

CHE 230 Organic Chemistry I 3

CHE 231 Organic Chemistry Laboratory I 1

STA 296 Statistical Methods and Motivations 3

Subtotal: Premajor Course hours 24

Professional Course Requirements

MLS 400 Laboratory Techniques and Phlebotomy 2

MLS 410 Medical Laboratory Biochemistry 3

MLS 420 Clinical Immunology and Serology 3

MLS 430 Clinical Mycology and Parasitology 2

MLS 440 Molecular Techniques 3

MLS 450 MLS Education and Management 3

MLS 460 Clinical Hematology 3

MLS 465 Clinical Hematology Laboratory 2

MLS 461 Clinical Microbiology 3

MLS 466 Clinical Microbiology Laboratory 2

MLS 462 Clinical Chemistry 3

MLS 467 Clinical Chemistry Laboratory 2

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University of Kentucky is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate, masters, and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or online at www.sacscoc.org for questions about the accreditation of University of Kentucky.

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MLS 463 Immunohematology	3
MLS 468 Immunohematology Laboratory	2
MLS 464 Body Fluids and Hemostasis	2
MLS 469 Body Fluids and Hemostasis Laboratory	2
MLS 470 Clinical Correlations	3
MLS 471 Professionalism in Medical Laboratory Science	1
MLS 480 Clinical Hematology Practicum	4
MLS 481 Clinical Microbiology Practicum	4
MLS 482 Clinical Chemistry Practicum	4
MLS 483 Immunohematology Practicum	4
Subtotal: Professional Course hours	60

In addition, students holding baccalaureate degrees in a health-related science may apply to the MLS program (fulfillment of preprofessional courses is required) and earn a second baccalaureate degree. Upon successful completion of the professional program, all students are eligible for the national certifying exam.

MLT to MLS Track

The MLT to MLS track (bridge) is an online program only available to those who have an associate degree from a medical laboratory technician (MLT) program.

Admission

Early academic advising for this track is crucial and is available from Jimmie L. Jones at: jimmie.jr2@uky.edu and Marcus Epps at: Marcus.Epps@uky.edu.

The MLS Program has selective admissions and students are admitted to the professional program on a competitive basis. Applicants must have completed all UK Core requirements and preprofessional requirements prior to entering the program. Admission requirements include: cumulative grade-point average (GPA) for all courses taken at institutions of higher education of 2.5 or higher on a 4.0 scale, successful completion of all preprofessional courses, an associate degree from a MLT/CLT program, and certification (BOC preferred) or documentation of five years of work experience in a MLT position within a multidisciplinary laboratory, and current employment in a clinical laboratory that offers testing in all major disciplines. Admission is based on GPA, cumulative GPA for preprofessional courses, and recommendation scores. Interviews may also be used in the admissions process. Applicants must submit an application, three recommendation forms, official transcripts, resume, and documentation of MLT/CLT program completion.

The application deadline is **June 1**.

The Curriculum

A total of 120 credits (including 40-48 professional program credits, preprofessional credits, UK core requirements, and the Graduation Composition and Communication Requirement) is required to receive the Bachelor of Health Sciences with a major in MLS degree.

UK Core Requirements

UK Core Requirements are the same as those listed above under the Traditional Track heading.

Graduation Composition and Communication Requirement (GCCR)

MLS 463 Immunohematology	3
MLS 470 Clinical Correlations	3

Graduation Composition and Communication Requirement hours (GCCR)

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Preprofessional Course Requirements

CHE 107 General College Chemistry II	3
CHE 113 Laboratory to Accompany General Chemistry I	2
PGY 206 Elementary Physiology	3
BIO 148 Introductory Biology I	
or	
BIO 152 Principles of Biology II	3
BIO 155 Laboratory for Introductory Biology I	1
CHE 230 Organic Chemistry I	3
CHE 231 Organic Chemistry Laboratory I	1
STA 296 Statistical Methods and Motivations	3

Subtotal: Preprofessional Course hours	19
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Professional Course Requirements

MLS 410 Medical Biochemistry	3
MLS 420 Clinical Immunology and Serology	3
MLS 430 Clinical Mycology and Parasitology	2
MLS 440 Molecular Techniques	3
MLS 450 MLS Education and Management	3
MLS 460 Clinical Hematology	3
MLS 461 Clinical Microbiology	3
MLS 462 Clinical Chemistry	3
MLS 463 Immunohematology	3
MLS 464 Body Fluids and Hemostasis	2
MLS 470 Clinical Correlation	3
MLS 471 Professionalism in Medical Laboratory Science	1
MLS 480 Clinical Hematology Practicum	2-4
MLS 481 Clinical Microbiology Practicum	2-4
MLS 482 Clinical Chemistry Practicum	2-4
MLS 483 Immunohematology Practicum	2-4

Subtotal: Professional Course hours	40-48
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For additional information, refer to: www.uky.edu/healthsciences/academic-programs/medical-laboratory-science

Or contact:

Michelle Butina, Ph.D., MLS (ASCP)
MLS Program Director
900 S. Limestone Street
126E CTW Building
Lexington, KY 40536-0200
(859) 218-0852
michelle.butina@uky.edu

or

Jimmie L. Jones
Academic Advisor
(859) 218-0546
jimmie.jr2@uky.edu

or

Marcus Epps
Academic Advisor
(859) 218-0491
Marcus.Epps@uky.edu