

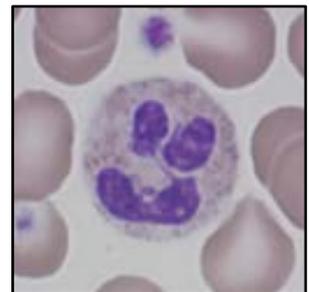
DOCTORATE IN CLINICAL LABORATORY SCIENCES STUDENT HANDBOOK 2019 – 2020 ACADEMIC YEAR



ZIEL Simulation Center University of Kansas Medical Center



UNIVERSITY OF KANSAS MEDICAL CENTER
SCHOOL OF HEALTH PROFESSIONS
DEPARTMENT OF CLINICAL LABORATORY SCIENCES



*THIS HANDBOOK REPLACES ALL PREVIOUSLY PUBLISHED KU MEDICAL CENTER DCLS
STUDENT HANDBOOKS*

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**CLINICAL LABORATORY SCIENCES DEPARTMENT
SCHOOL OF HEALTH PROFESSIONS
UNIVERSITY OF KANSAS MEDICAL CENTER**

Information for the graduate students in the DCLS Program

Welcome graduate students! We have prepared this document to assist you during your graduate studies in the Department of Clinical Laboratory Sciences. The information presented is a combination of Office of Graduate Studies and Departmental requirements. It is important that you become familiar with all of the pertinent Office of Graduate Studies rules and regulations as described in the Graduate catalog which can be found online at:

[Office of Graduate Studies Catalog](#)

In addition to the Graduate catalog, the University of Kansas Medical Center (KU MEDICAL CENTER) maintains a student handbook that details the Policies and Guidelines of the KU MEDICAL CENTER campus, the campus calendar, and includes each individual school's handbook. The KU MEDICAL CENTER Student Handbook is available online (and is printable if you prefer a hard copy) at:

[KU Medical Center Student Handbook](#)

The School of Health Professions student handbook can be directly accessed at the following site:

[School of Health Professions Student Handbook](#)

As graduate students, you are responsible for the information obtained in these documents. It is important that you maintain good standing within the Office of Graduate Studies, and that all requirements are fulfilled. The DCLS Program Director will be pleased to discuss any question or concern involving the graduate program. The attainment of an advanced degree is a difficult task but provides high reward. To reach the required level of knowledge and skill requires substantial effort. Because of the level of training excellence required and expected, each degree aspirant will be mentored, advised, counseled and encouraged throughout the program. While the responsibility for success lies with each student, the Department faculty want every student to succeed. Consequently, the Department will make every effort to provide you with the best possible learning environment to give you the opportunity to reach your goal.

ACCREDITATION STATEMENT

The Department of Clinical Laboratory Sciences' Doctorate in Clinical Laboratory Sciences program will be seeking accreditation when the program is deemed eligible to apply for accreditation through the:

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

5600 N. River Road #720
Rosemont, IL 60018

Phone: (773) 714-8880
Fax: (773) 714-8886

E-mail: info@naaccls.org
www.naaccls.org

UNIVERSITY OF KANSAS MEDICAL CENTER

Mission Statement

This document can be found at the following website:

[KUMC Mission Statement](#)

SCHOOL OF HEALTH PROFESSIONS

Mission Statement

This document can be found at the following website:

[School of Health Professions Mission Statement](#)

“To serve the citizens of Kansas, the region, the national and to develop tomorrow's leaders through exemplary education, research and service.”

Department of Clinical Laboratory Sciences and its Academic Programs

Vision Statement

The vision of the Department of Clinical Laboratory Sciences and its Academic Programs is to produce exemplary clinical laboratory science professionals qualified to provide safe and competent services to the public.

Department of Clinical Laboratory Sciences

Mission Statement

The ***mission*** of the Clinical Laboratory Sciences Department is to provide undergraduate and graduate programs in a setting where qualified students can prepare themselves for careers in the clinical laboratory sciences. The Department, an integral part of the University of Kansas Medical Center, subscribes to and supports the mission of the University of Kansas Medical Center.

The Department is to be responsive to current manpower needs in the life science and health care systems, and, when appropriate, provide leadership in developing programs to meet those needs. The Department strives to provide the best possible resources for attainment of the stated mission.

Doctorate in Clinical Laboratory Sciences Program

Mission Statement

The ***mission*** of the Doctorate in Clinical Laboratory Sciences Program is to provide a setting where qualified students can prepare themselves for advanced practice in the clinical laboratory sciences.

The opportunities provided are to be such that graduates will become valuable members of the healthcare team by providing consultative laboratory services to improve patient care and safety, reduce costs through appropriate lab testing and utilization, and perform evidence-based research to advance the practice of clinical laboratory science.

The program strives to develop in each graduate an understanding of and an appreciation for the needs and concerns of the patient and other members of the health care team.

PROGRAM GOALS

To fulfill these missions as well as meet the needs of the clinical laboratory community, the Department's DCLS program will:

1. Provide patient-centered, customized consultation services on appropriate test selection and interpretation for the purpose of clinical decision-making among the interprofessional healthcare team and for the patient.
2. Monitor laboratory data, test utilization, and diagnostic testing processes for individual patients and populations using informatics and analytics to reduce diagnostic errors, improve efficiency, and reduce costs.
3. Conduct research and apply evidence to demonstrate clinical utility of laboratory tests and algorithms and to improve the quality, efficiency, and safety of the overall diagnostic testing process.
4. Educate health care providers, patients, their families, and the general public on the indications, best evidence, patient preparation, and interpretation of clinical laboratory testing, including home self-testing.
5. Direct laboratory operations to comply with all state and federal laws and regulations, as well as guidelines determined by professional boards of licensure, and certification/accreditation agencies.
6. Participate in public and private health policy decision making at all organization and government levels using best evidence.

CODE OF ETHICS FOR DCLS STUDENTS

We, as Doctorate students of Clinical Laboratory Sciences, will apply the following Code of Ethics to our actions toward patients, physicians, and hospital personnel in our clinical program and in our future work. This code will apply to our personal as well as professional attitudes and conduct.

As Professionals we will:

- assume a professional manner in attire and conduct;
- treat our fellow humans with care, dignity and patience;
- establish a rapport with hospital staff, supervisors, and physicians;
- hold in confidence information relating to patients;
- strive for increased efficiency and quality through organization;
- be willing to accept responsibility for our own work and results;
- establish confidence of the patient through kindness and empathy.

In Personal conduct we will:

- achieve the highest degree of honesty and integrity;
- maintain adaptability in action and attitude;
- establish a sense of fraternity among fellow students;
- strive to have a pleasant manner at all times;
- remember that we are University as well as Doctorate of Clinical Laboratory Science students; therefore, we should strive to be educated individuals outside our technical field and uphold the highest standards of respect to our fellow man.

THE DCLS OATH

As a Doctor of Clinical Laboratory Science, to the best of my ability I will fulfill my duty to patients, to society, to the medical laboratory profession and to healthcare colleagues as set forth by this pledge:

- I will ensure that each patient receives the highest standard of care that is safe, effective, efficient, timely, equitable, and patient-centered.
- I will place the welfare and best interest of my patients above my own needs.
- I will improve access to laboratory testing services and encourage the use of evidence-based practices to support informed clinical decision processes.
- I will abide by the laws and regulatory requirements enacted to protect patients from illegal or unethical medical practice.
- I will serve as a patient advocate and safeguard patient information with the utmost confidentiality as prescribed by the law.
- I will use my influence for the improvement of conditions that will provide patients with the highest quality of care.
- I will continue to learn, study, and apply pertinent scientific knowledge to ensure consultation of relevant information for my patients, my profession, other healthcare professionals, and society.
- I will establish cooperative, collegial working relationships within the clinical laboratory and with all members of the healthcare team with the primary objective of ensuring a high standard of care for the patient populations we serve.

Adapted from: ASCLS Code of Ethics: <http://www.ascls.org/about-us/code-of-ethics>

**THE UNIVERSITY OF KANSAS
SCHOOL OF HEALTH PROFESSIONS**

ORGANIZATIONAL STRUCTURE

DEAN

Abiodun Akinwuntan, Ph.D., MPH, MBA

DEPARTMENT CHAIRS

CLINICAL LABORATORY SCIENCES	Eric Elsinghorst, PhD, MPH, MLS(ASCP) ^{CM} MB ^{CM}
DIETETICS and NUTRITION	Debra Sullivan, PhD, RD
HEALTH INFORMATION MANAGEMENT	Rosann M O'Dell, DHSc, MS, RHIA, CDIP
HEARING and SPEECH	Tiffany M. Johnson, PhD
NURSE ANESTHESIA	Donna Nyght, CRNA, DNP
OCCUPATIONAL THERAPY (interim)	Dory Sabata, OTD, OTR/L, SCEM, FAOTA
PHYSICAL THERAPY	Patricia M. Kluding, PT, PhD
RESPIRATORY CARE	David Burnett, PhD, RRT

THE UNIVERSITY OF KANSAS SCHOOL OF HEALTH PROFESSIONS

DEAN'S OFFICE – *Located in 1024 Murphy Building*

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KU MEDICAL CENTER OFFICE OF GRADUATE STUDIES GRADUATE STUDIES

Processes all paperwork related to graduate students, faculty, degrees, programs and coursework.

Vice Chancellor for Academic
Affairs

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KU MEDICAL CENTER OFFICE OF THE REGISTRAR

Dykes Library
913-588-7055

Visit the [Office of the Registrar](#) for:

- Change of Name
- Official verification of grades/or student enrollment (for insurance, work etc.)
- Residency questions
- Online transcript request
- Change of Address

CLINICAL LABORATORY SCIENCES DEPARTMENT DCLS FACULTY & STAFF

PROGRAM OFFICIALS	TITLE	PHONE
Eric Elsinghorst, Ph.D., MPH, MLS(ASCP) ^{CM} MBC ^{CM}	Chair	(913) 588-1089
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WenFang Wang, Ph.D., C(ASCP) ^{CM}	(913) 588-0151
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UNIVERSITY OF KANSAS MEDICAL CENTER
SCHOOL OF HEALTH PROFESSIONS
CLINICAL LABORATORY SCIENCES DEPARTMENT
TECHNICAL STANDARDS FOR ADMISSION AND RETENTION

Graduates of the Doctorate in Clinical Laboratory Sciences must have the knowledge and skills to function in a broad variety of clinical laboratory and patient care environments, including hospitals, reference, public health, and physician office settings. Therefore, the following abilities and expectations must be met by all students in the program.

Essential Observational Requirements

1. Read and comprehend text, numbers, and graphs displayed in print and other visual displays.
2. Perform comparative observations of text, movement, shapes, graphs, colors, etc.
3. Observe and respond to subtle cues of individual's moods, temperament, and social behavior.
4. Observe, learn from, and analyze medical record content, including discernment and use of clinical and administrative data displayed within the medical record.
5. Observe, learn from, and analyze statistical, financial, and reimbursement data, including utilizing spreadsheets, software, databases, and performing mathematical calculations.
6. Observe, learn from, and analyze class demonstrations and experiences in disciplines relevant to Clinical Laboratory Sciences that include but are not limited to information management, biochemistry, physiology, statistics, clinical correlations, and research methodology.

Essential Movement Requirements

1. Perform actions requiring coordination of both gross and fine muscular movement, equilibrium and use of senses.
2. Move freely and safely about healthcare settings (hospitals, patient rooms, clinics, laboratory, etc.).
3. Travel to sites both on and off campus involved in coursework and residency.
4. Perform moderately taxing continuous physical work over several hours.
5. Use an electronic keyboard to generate, calculate, record, evaluate, and transmit information.
6. Prepare assignments, both written and on-line.
7. Deliver public presentations to large and small audiences.

Essential Communication Requirements

1. Read, interpret, and comprehend technical and professional materials (e.g., textbooks, journal articles, handbooks, instruction manuals, and patient healthcare records).
2. Be able to share and to elicit information from patients, healthcare providers, peers, and research collaborators verbally and in a recorded format.
3. Assimilate information to prepare papers, produce reports, and complete documentation for patient care and research purposes.
4. Effectively, confidently, and sensitively converse with patients, laboratory staff, and healthcare providers regarding laboratory test selection, interpretation, and follow-up.
5. Communicate effectively (speaking, writing, typing, graphics, or telecommunication) with faculty, students, laboratory staff, patients, and other healthcare professionals.
6. Take paper and computer examinations.

Essential Intellectual Requirements

1. Understand and perform measurements, calculations, synthesis, analysis, reasoning and problem solving.
2. Participate in research activities involving the laboratory or patient oriented research activities.
3. Possess sufficient judgment to recognize and correct performance deviations.

Essential Behavioral and Social Requirements

1. Manage the use of time and be able to systematize actions in order to complete academic, professional and technical tasks within realistic constraints.
2. Possess the emotional health necessary to effectively employ intellect, act ethically, and exercise appropriate judgment.
3. Demonstrate appropriate affective behaviors and mental attitudes as to not jeopardize the emotional, physical, mental and behavioral safety of other individuals with whom there is interaction in academic clinical, and residency settings.
4. Possess the mental and emotional rigor to maintain relationships and demonstrate respect to all people, including students, faculty, patients, and other healthcare professionals at residency settings, without showing bias or preference on the basis of race, color, age, sex, religion or creed, national origin or ancestry, gender expression, gender identity, disability, veteran status, sexual orientation or genetic testing & screening.
5. Adapt to professional and technical change, being flexible and creative.
6. Use appropriate language.
7. Demonstrate empathy when appropriate.
8. Work effectively in inter-professional teams.
9. Demonstrate an understanding of the rationale and justification for one's performance.
10. Demonstrate attention to detail and flexibility to function in a clinical and/or research setting.
11. Recognize potentially hazardous materials, equipment, and situations and proceed safely in order to minimize risk of injury to self and nearby individuals.
12. Practice honesty, compassion, and responsibility.
13. Be forthright about errors or uncertainty.
14. Critically evaluate one's own performance, accept constructive criticism, and look for ways to improve.
15. Critically evaluate the performance of students, patients, and healthcare providers, tactfully offering constructive comments.
16. Provide professional and technical services while experiencing the stresses of heavy workloads (i.e., large number of tasks to complete in a limited amount of time), task-related uncertainty (i.e., ambiguous test-ordering, ambivalent test interpretation), emergent demands (i.e., "stat" test orders, interaction with other members of the healthcare team), and a distracting environment (i.e., high noise levels, crowding, complex visual stimuli).

DESCRIPTION OF THE PROFESSION

Doctorate in Clinical Laboratory Science (DCLS)*

The DCLS is an advanced practice degree for actively practicing, currently ASCP certified, Medical Laboratory Scientists who are interested in increasing practical and theoretical knowledge of Clinical Laboratory Science, advancing in the profession, and positively impacting the current healthcare system through interprofessional collaboration with other members of the healthcare team.

The DCLS will have the depth of knowledge and training required to provide real-time clinical decision support thereby mitigating the challenges to improved patient outcomes associated with laboratory testing. The DCLS will interpret complex testing panels, address appropriate clinical utility, and correlate test results with patient's symptomology to provide real-time clinical decision support. The DCLS will serve as a consistent resource for the patient and members of the healthcare team. By providing these consultations, the DCLS will enable meaningful use, appropriate utilization management, and provide interpretation leading to better patient care and safety while also lowering cost and increasing reimbursement.

DCLS graduates will be prepared to act as consultants to healthcare providers, serve as laboratory directors, educate patients and healthcare providers, perform and disseminate research on evidence base practice and test utilization, and enter academic faculty positions.

** Adapted from: American Society for Clinical Laboratory Sciences Document: Advanced Practice, Doctorate in Clinical Laboratory Science: Position Paper August 2016.*

DCLS PROGRAM INFORMATION

EDUCATIONAL GOALS OF THE PROGRAM

Goal

The **Goal** of the program is to provide graduates with educational experiences such that they can develop the competencies needed for advanced practice in Clinical Laboratory Science.

To realize this goal, the DCLS program will:

- Provide an exemplary curriculum that allows graduates to perform as competent advance practice professionals
- Promote transfer of knowledge and skills relevant to the current and evolving scope of practice
- Promote the development of critical thinking, clinical reasoning, and creative problem-solving skills
- Explore, cultivate, and integrate innovative educational methods in clinical laboratory science education
- Promote the profession through innovative education and engagement
- Promote interprofessional education and practice between clinical laboratory scientists and other healthcare professionals
- Promote opportunities to develop communication, teamwork, and leadership skills that will enable graduates to function as an integral member of the healthcare team
- Cultivate an environment of active participation in professional organizations
- Model professional, ethical practice, and leadership

Curriculum

The general mission of the DCLS program is to provide broad-based knowledge and skills to prepare students for advanced careers in clinical laboratory sciences, such as consulting with physicians and diagnostic management teams to improve test selection, utilization, and result interpretation, patient and healthcare provider education on laboratory related issues, performing evidence-based research to support changes in the role of the laboratory in patient care, improve patient safety, and reduce costs. To realize this mission, the curriculum is structured to build upon the students' firm foundation as a credentialed Medical Laboratory Scientist by increasing theoretical and practical knowledge in advanced principles related to clinical correlation of laboratory tests with disease presentations, development of diagnostic algorithms, antibiotic stewardship, and research methodologies. The curriculum combines traditional coursework as well as a year-long clinical residency experience.

The Doctorate in Clinical Laboratory Sciences is a minimum 76 credit hour program that can be completed in three years if taken on a full-time basis, as outlined below.

Course Load:

A full-time student usually enrolls in 10 to 14 credit hours each semester and 6 to 8 credit hours in the summer session (including clinical residency). Minimum credit hour requirements for financial aid/medical insurance/etc. may differ from these numbers. The minimum number of credit hours needed to be considered a full-time student is 9 during the fall and spring semesters, and 6 in the summer.

Balancing Program Load and Outside Work:

A number of graduate students find employment outside of the university because of financial need. The faculty recognizes that employment may be a necessary and potentially positive experience for a graduate student, to the extent that the student's academic and clinical obligations are not negatively impacted. Students must carefully consider the total number of hours required for outside employment and also the flexibility of the work schedule. As a general guideline, 10-16 hours per week of outside work is typically compatible with an acceptable level of performance within the DCLS program for most full-time students. A heavier workload often places significant time restrictions and added stress that negatively impacts academic and clinical performance. If the student's performance within the program is suffering because of a heavy work load, the student

should consider reducing the workload or reducing the academic/clinical load (part-time option). Reducing the academic or clinical load will likely increase the total number of semesters needed to complete the program. Students are encouraged to discuss their work plans with their academic advisor for assistance in balancing program load and outside work.

Recommended Course Progression – Full Time Schedule

Year 1 – Fall – 12 credit hours

DCLS 836 Advanced Hematology (3)

This course focuses on enhancement of scientific and technical knowledge in hematology and hemostasis to consult with other healthcare practitioners on the selection of screening and diagnostic tests for hematological disorders, interpretation of results, and recommendations for follow-up testing. Topics to be investigated include physiology and regulation of the hematopoietic system and hemostasis, and the genetic, molecular and cellular mechanisms underlying the pathophysiology of selected hematological disorders such as anemias, leukemias, lymphomas, and disorders of hemostasis with additional focus on utilization of appropriate hematology, hemostasis, and molecular diagnostic tests, and reducing turn-around time.

DCLS 830 Advanced Clinical Chemistry (3)

This course focuses on in depth physiology and pathophysiology together with the principles of current and emerging chemistry tests. Emphasis on the correlation between chemistry tests and disease states, interpretation and limitations of chemistry test results. Current clinical chemistry literature, clinical scenarios, case studies, and advanced laboratory practice issues will be used to enhance knowledge and skills.

DCLS 815 Research Methods in Clinical Laboratory Sciences (2)

A discussion of research methods used in clinical laboratory sciences, with an emphasis on selecting and applying appropriate research designs. Includes an overview of the scientific method and various research models in current use in clinical laboratory science; the role of theory in problem formulation; internal and external validity; variable measurement and reliability, and generalizability of findings. Specific approaches covered include experimental and quasi-experimental treatment designs, epidemiologic methods (cohort and case-control studies), survey research, evaluation and outcomes research, methodological studies and qualitative research.

HP&M 810 Health Care System (3)

The structure and function of the components of the U.S. healthcare system are introduced in the context of the history, values and social forces that influenced its development and evolution. Students gain exposure to the concepts and vocabulary associated with aspects of the system, including delivery (providers, institutions, services), resources (finance, payment, insurance), population and public health, and outcomes (cost, access, quality). Healthcare outcomes from consumer, clinical and societal perspectives are explored.

PRVM 853 Responsible Conduct of Research (1)

The purpose of this course is to engage research trainees in reading about, considering, and discussing the responsible conduct of science. The course is designed as an option for meeting current federal regulations, which require that all NIH training grants provide training in the responsible conduct of research. This course provides a concise overview of key subject areas in the responsible conduct of research. It is designed to make students aware of relevant guidelines, policies and codes relating to ethical research, as well as to provide the skills for identifying and resolving ethical conflicts that may arise in research.

Year 1 – Spring – 12 credit hours

DCLS 842 Advanced Clinical Microbiology (3)

This course focuses on enhancement of scientific and technical knowledge in clinical microbiology necessary for consultation with other healthcare practitioners for (i) the selection of screening and diagnostic tests for suspected infectious diseases, (ii) interpretation of results,

and (iii) recommendations for follow-up testing. Topics to be investigated include utilizing molecular diagnostic tests, antimicrobial susceptibility testing and resistance mechanisms, bioterrorism, biofilms, opportunistic and emerging infections, utilization of appropriate microbiology tests, evidence-based practice in clinical microbiology, and reducing turn-around time. Current scientific literature, clinical scenarios, case studies, and advanced laboratory practice issues will be used to enhance knowledge and skills.

DCLS 851 Clinical Correlations I (3)

This course will correlate clinical presentation and laboratory testing as it relates to physiological changes associated with select diseases of major organ systems (e.g., endocrine, muscle, cardiovascular, respiratory, renal, gastrointestinal, immune, nervous, and reproductive).

DCLS 890 Advanced Laboratory Operations (3)

This course will explore laboratory quality, utilization, accreditation, regulation, and management topics. Core course content explores the selection, implementation, strengths, and weaknesses of appropriate quality assurance programs to maintain desired quality goals. All aspects of laboratory services will be explored to enhance consultative skills that will be applied in the clinical residency. The use of practice guidelines, critical or clinical pathways, algorithms and reflex testing, direct access testing, evidenced-based practice, and outcomes measurements, as well as initiatives to change the practice of laboratory services in all phases (pre-analytical, analytical, and post analytical) are covered.

PHSL 843 Physiology of Disease (3)

This course will cover physiological changes associated with representative diseases of major organ systems (endocrine, muscle, cardiovascular, respiratory, renal, gastrointestinal, immune, nervous, and reproductive). Example diseases to be covered include: diabetes, pituitary disorders, osteoporosis, obesity, non-alcoholic fatty liver disease, muscular dystrophy, hypertension, chronic obstructive pulmonary disease, asthma, glomerulonephritis, polycystic kidney disease, gastroesophageal reflux disease, inflammatory bowel diseases, rheumatoid arthritis, multiple sclerosis, infertility, endometriosis, and pregnancy complications. Class will include lectures, faculty-mentored student presentations, evaluations of research papers, and discussions. LEC Prerequisite: Comprehensive Human Physiology (PHSL 842), an equivalent course, or consent of Course Director.

Year 2 – Fall – 13 credit hours

DCLS 805 Advanced Molecular Diagnostics (2)

This course focuses on the enhancement of scientific and technical knowledge in nucleic acid-based testing for the diagnosis of acquired and hereditary genetic disorders, and infectious diseases. Topics include: selection of appropriate screening and diagnostic tests and techniques; results interpretation in the context of other laboratory and clinical data; monitoring disease progression, therapeutic efficacy, and follow-up recommendations; communicating results and providing consultation to healthcare practitioners and other stakeholders in a professional manner including ethical considerations. Current scientific literature, clinical scenarios, case studies, and advanced laboratory practice issues will be used to enhance knowledge and skills.

BIOS 704 Principles of Statistics in Public Health (3)

Introductory course concerning the concepts of statistical reasoning and the role of statistical principles as the scientific basis for public health research and practice. Prerequisite: Permission of instructor.

DCLS 838 Advanced Immunology/Transplant (3)

This course focuses on enhancement of scientific and technical knowledge in clinical immunology and transplantation in order to consult with other healthcare practitioners on clinical applications, diagnostic and therapeutic testing of immune-mediated diseases in autoimmunity, pregnancy, anaphylaxis and allergy, immunotherapy and immunotoxicology, transplantation and HLA testing/compatibility, cancer immunology and immunodeficiency. Topics include test methodologies in cellular, humoral, and molecular immunology, selection and interpretation of test results, and recommendations for follow-up testing for patient

monitoring. Current scientific literature, clinical scenarios, case studies, and advanced laboratory practice issues will be used enhance knowledge and skills.

DCLS 802 Principles of Healthcare Education (3)

This course will address various aspects of teaching in healthcare settings. This includes educating patients and their families, educating other healthcare professionals, and the more formal area of undergraduate and graduate education. Education theory, pedagogical methods, educational resources, learning objectives, and evaluation techniques applicable to each type of educational situation will be addressed.

PHCL 898 Principles of Pharmacology (1)

Chemical fundamentals in structure, actions and metabolism of drugs and toxicants. Included are molecular features of drugs and toxicants, stereoisomerism, receptor theory, dose-response relationships, agonists and antagonists, absorption, pharmacokinetics and structure-activity relationships.

DCLS 880 DCLS Interprofessional Practice (1)

This course is designed for DCLS program students to introduce them core competencies in interprofessional practice for healthcare teams such as roles and responsibilities, values and ethics, teamwork, communication, and collaborative practice as it relates to the improvement of patient safety outcomes and the provision of quality patient care. Repeatable.

Year 2 – Spring – 13 credit hours

PRVM 800 Epidemiology (3)

Basic concepts of epidemiology and methods for identification of factors influencing health and disease in human populations. Considerations are centered on physical, biological, psychosocial and cultural factors in relation to infectious and non-infectious diseases; interactions between agent, host, and environmental factors as determinants of health and disease; application of the epidemiologic approach to health services; retrospective and prospective analysis of morbidity and mortality data.

DCLS 844 Advanced Immunohematology (3)

This course will explore advanced blood banking theory and transfusion medicine concepts pertaining to basic-to-advanced serological testing techniques, blood product utilization, molecular immunohematology testing methods, quality assurance, and other relevant topics. Learners will be re-introduced to specialized blood banking procedures including (but not limited to) the following: ABO/Rh, antibody screens, antibody identification, fetal screen, elutions, phenotyping, and crossmatching. Using case studies and discussion, learners will correlate laboratory data to clinical disease processes encountered in transfusion medicine.

DCLS 852 Clinical Correlations II (3)

This course will build on CLS851 Clinical Correlations I and will correlate clinical laboratory testing as it relates to physiological changes associated with patient symptomology (e.g. Chest pain, shortness of breath, unresponsiveness, fever of unknown origin, jaundice). Correlate diagnostic testing with treatment in a consultation model.

DCLS 820 Evidence Based Practice (3)

Evidence-Based Practice (EBP), which encompasses Evidence-Based Medicine (EBM) and Evidence-Based Laboratory Medicine (EBLM), is a problem-based approach to decision making using research evidence combined with clinical expertise and taking into consideration the patient's values and circumstances and the clinical context. This course will address the development and utilization of EBP/EBLM in healthcare. Discussions will include the historical development of EBP/EBLM, why using EBP/EBLM in clinical decision making improves patient care, when and how to implement EBP/EBLM in clinical decision making, the process of using EBP/EBLM in clinical decision making, and how to discuss the EBP/EBLM finding with patients, family members and other healthcare practitioners. Evaluating research studies for their applicability to EBP/EBLM and designing research studies based on clinical evidence

focused on laboratory testing will make up most of the course content, activities and assignments.

DCLS 880 DCLS Interprofessional Practice (1)

This course is designed for DCLS program students to introduce them core competencies in interprofessional practice for healthcare teams such as roles and responsibilities, values and ethics, teamwork, communication, and collaborative practice as it relates to the improvement of patient safety outcomes and the provision of quality patient care. Repeatable.

Year 3 – Summer – 7 credit hours

DCLS 800 Advanced Topics (1)

Seminar course that addresses topics and issues relevant to DCLS clinical practice, including ethical and social issues in healthcare practice, health informatics, and communication techniques needed for interaction with healthcare colleagues and patients. Repeatable.

DCLS 901 DCLS Research I (2)

A prospectively planned and approved translational research project which is advisor-guided, student-directed, and designed to support and enhance students' ability to apply their graduate knowledge and achieve tangible outcomes for the CLS profession.

DCLS 911 DCLS Residency I (4)

A structured and supervised experience correlating coursework with practice. The DCLS residency provides opportunities for students to integrate knowledge and research findings in a practice setting, to develop skills in clinical and management areas, education, research applications, and to interface with other professionals in the healthcare environment. The clinical residency may include daily grand rounds, patient-care conferences, and interactions with the healthcare team. Skills and knowledge will be evaluated through competency-based assessments and portfolio development. Residency will occur at one or more affiliated institutions. Prerequisite: Successful completion of the DCLS comprehensive examination.

Year 3 – Fall – 9 credit hours

DCLS 800 Advanced Topics (1)

Seminar course that addresses topics and issues relevant to DCLS clinical practice, including ethical and social issues in healthcare practice, health informatics, and communication techniques needed for interaction with healthcare colleagues and patients. Repeatable.

DCLS 902 DCLS Research II (3)

A prospectively planned and approved translational research project which is advisor-guided, student-directed, and designed to support and enhance students' ability to apply their graduate knowledge and achieve tangible outcomes for the CLS profession.

DCLS 912 DCLS Residency II (5)

A structured and supervised experience correlating coursework with practice. The DCLS residency provides opportunities for students to integrate knowledge and research findings in a practice setting, to develop skills in clinical and management areas, education, research applications, and to interface with other professionals in the healthcare environment. The clinical residency may include daily grand rounds, patient-care conferences, and interactions with the healthcare team. Skills and knowledge will be evaluated through competency-based assessments and portfolio development. Residency will occur at one or more affiliated institutions. Prerequisite: Successful completion of the DCLS comprehensive examination.

Year 3 – Spring – 10 credit hours

DCLS 800 Advanced Topics (1)

Seminar course that addresses topics and issues relevant to DCLS clinical practice, including ethical and social issues in healthcare practice, health informatics, and communication techniques needed for interaction with healthcare colleagues and patients. Repeatable.

DCLS 903 DCLS Research III (3)

A prospectively planned and approved translational research project which is advisor-guided, student-directed, and designed to support and enhance students' ability to apply their graduate knowledge and achieve tangible outcomes for the CLS profession.

DCLS 913 DCLS Residency III (5)

A structured and supervised experience correlating coursework with practice. The DCLS residency provides opportunities for students to integrate knowledge and research findings in a practice setting, to develop skills in clinical and management areas, education, research applications, and to interface with other professionals in the healthcare environment. The clinical residency may include daily grand rounds, patient-care conferences, and interactions with the healthcare team. Skills and knowledge will be evaluated through competency-based assessments and portfolio development. Residency will occur at one or more affiliated institutions. Prerequisite: successful completion of the comprehensive examination.

DCLS 999 DCLS capstone (1)

The Capstone Project reflects the culmination of academic and advanced clinical study and is comprised of a written report that involves both literature and field activity. A Capstone project represents the research and application of knowledge to questions regarding clinical laboratory science concepts, as well as an articulated plan for dissemination of the outcomes (eg. manuscript suitable for publication). Prerequisite: Consent of Instructor.

Residency Procedures and Policies

See KU MEDICAL CENTER DCLS Program Residency Handbook.

Degree Progression & Completion

During degree progression and completion, DCLS students will be guided by a five-member Graduate Advisory Committee (GAC) consisting of four CLS Department Graduate Faculty and one external member of the KU MEDICAL CENTER Graduate Faculty.

Residency Qualifying Examination. Upon completion of the core curriculum, all degree candidates will complete a comprehensive examination developed by the Department of Clinical Laboratory Science Graduate Faculty. Students will demonstrate their command of the clinical laboratory science body of knowledge, as well as their ability to statistically analyze data, and their expertise in the broad scope of clinical practice. Students must be in good academic standing with the KU Medical Center Office of Graduate Studies (i.e. hold a minimum 3.0 cumulative GPA) to be eligible for the comprehensive examination. The examination must be successfully completed to qualify for enrollment in residency courses. Students who fail to pass will be allowed to repeat the examination one time upon the recommendation of the student's GAC. The repeat examination may not be scheduled within two months of the unsuccessful attempt.

Residency Portfolio. This portfolio will contain documentation of experiences and work products completed during the DCLS candidate's residency. This may include de-identified

summaries of consultations, papers and abstracts published or submitted, PowerPoint presentations, method evaluation data and/or written procedures from utilization projects. Development of the portfolio will be directed by competencies and guidelines necessary to sit for DCLS-associated national certification examinations. The portfolio will be assessed by the student's GAC according to the National competencies and guidelines.

Capstone. The capstone project is the culminating academic and intellectual experience of the DCLS program. It consists of a research project conducted during the residency year and defended at the completion of the program.

Research Project

A prospectively planned and approved translational research project which is advisor-guided, student-directed, and designed to support and enhance students' ability to apply their graduate knowledge and achieve tangible outcomes for the DCLS profession. DCLS Research Project is a series of three courses taken consecutively (DCLS 901, DCLS 902, DCLS 903). The three-course series includes all aspects of the translational research project, including the planning, data collection, analysis/interpretation of results, preparation, and presentation of the research project, both oral and written. The three-course series outcome is the preparation of a manuscript suitable for publication. Research projects will advance practice in clinical laboratory medicine, such as the development and implementation of diagnostic and interpretive algorithms, clinical practice guidelines, and collaborative interprofessional patient care. Examples of DCLS research projects include: reducing unnecessary test orders by implementing a physician education program in hemostasis testing for stroke patients; cost savings following test utilization review for commonly inappropriately ordered tests; assessing the transfusion criteria for select populations (oncology, liver transplant, refractory platelet, etc.).

DCLS students actively working on their research project will be guided by their GAC. The students must maintain active enrollment in applicable coursework each semester while in the research phase. Each student enrolls in the research project courses DCLS 901, DCLS 902, and DCLS 903 only once. If additional enrollment is required to complete the research project, the student must enroll in a suitable and repeatable course such as DCLS 800 Advanced topics for each additional semester.

Capstone Defense

Defense of the research project described above while enrolled in DCLS 999. The capstone is completed during the final semester of the program and consists of both written and oral components. The written component consists of a manuscript suitable for publication based on the research completed as described above. The capstone oral defense will be scheduled once the final draft of the manuscript is accepted by the student's GAC. The oral component is a defense of the manuscript and can include questions regarding general knowledge of clinical laboratory science concepts and applications. Performance on the oral defense will be rated as "Honors," "Satisfactory" or "Unsatisfactory" and this rating will be forwarded to the Office of Graduate Studies. Students who fail to pass will be allowed to repeat the defense one time upon the recommendation of the student's GAC. The repeat defense may not be scheduled within two months of the unsuccessful attempt. If a rating of at least "Satisfactory" is not achieved after the second attempt, the student is subject to dismissal from the program.

Career Entry Competencies

Direct patient care

- Assess patients, including identifying and prioritizing patient problems and laboratory-related needs.
- Evaluate laboratory orders for appropriateness, effectiveness, safety, adherence, and affordability.
- Develop/initiate diagnostic testing algorithms.
- Follow up on and monitor the outcomes of laboratory orders and results.
- Collaborate with other members of the health care team to achieve optimal patient outcomes across the continuum of care.
- Apply knowledge of the roles and responsibilities of other health care team members to patient care.

Clinical laboratory knowledge

- Demonstrate and apply in-depth knowledge of hematology, clinical chemistry, immunology, molecular diagnostics, transfusion medicine, clinical microbiology, pathophysiology, and the clinical signs, symptoms, and natural history of diseases and/or disorders.
- Demonstrate and apply in-depth knowledge of laboratory operations including quality, utilization, accreditation, regulation, and management.
- Locate, evaluate, interpret, and assimilate scientific/clinical evidence and other relevant information from the biomedical, clinical, epidemiological, and social-behavioral literature.
- Use scientific knowledge and evidence based medicine as the basis for clinical decision-making.
- Maintain and enhance laboratory medicine knowledge, including MLS recertification (DCLS when available) and other appropriate methods of self-assessment and learning.

Systems-based care and population health

- Use health care delivery systems and health informatics to optimize the care of individual patients and patient populations.
- Participate in identifying systems-based errors and implementing solutions.
- Resolve laboratory-related problems to improve patient/population health and quality metrics.
- Apply knowledge of laboratory operations and risk-benefit analysis to patient-specific and/or population-based care.
- Participate in developing processes to improve transitions of care.
- Design quality improvement processes to improve laboratory testing use.

Communication

Communicate effectively with:

- Patients, caregivers, families, and laypersons of diverse backgrounds.
- Other health professionals and stakeholders.
- Provide clear and concise consultations to other health professionals.
- Develop professional written communications that are appropriate to the audience.
- Use verbal communications tailored to varied clinical and patient-specific environments.
- Communicate with appropriate levels of assertiveness, confidence, empathy, and respect.

Professionalism

- Uphold the highest standards of integrity and honesty.
- Commit to a fiducial relationship with patients, always working in their best interests.
- Serve as a credible role model/leader for students, trainees, and colleagues by exhibiting the values and behaviors of a professional.
- Advocate for the clinical laboratory profession through stewardship, training of future clinical laboratorians, and active engagement in professional societies.

Continuing professional development

- Commit to excellence, integrity, and lifelong learning.
- Demonstrate skills of self-awareness, self-assessment, and self-development.
- Identify and implement strategies for personal improvement through continuing education and professional development.
- Provide professional education to students, trainees, or other health professionals.
- Maintain MLS certification to ensure that laboratory knowledge is up-to-date.

ACADEMIC AND GRIEVANCE POLICIES

Introduction

The seventy-six (76) hours of credit offered in the Doctorate in Clinical Laboratory Sciences Program at the University of Kansas Medical Center provide an opportunity for the student to acquire competence of a high standard in laboratory practice. The DCLS student must develop problem solving and consultative skills. The courses demand time, effort, high standards of professionalism, and acquisition of advanced theoretical knowledge, all to be accomplished in a prescribed period.

The basis for evaluation of student performance in each course will be included in the course syllabus and provided to the student at the beginning of the course.

The DCLS student is required to take a residency qualifying examination over all core coursework prior to the start of the residency year. A satisfactory grade on the qualifying exam is required for admission to the clinical residency.

The rules and regulations of the School of Health Professions of the University of Kansas pertaining to academic policies, grade, tests, examinations and final examinations are published in the [School of Health Professions Handbook](#). It is the student's responsibility to read these policies and as well as the policies for the Clinical Laboratory Sciences department. Specific academic standards for students in the Clinical Laboratory Sciences department follow below.

Read "[The Grading System](#)" for the University of Kansas policy on Incompletes.

Academic Standards

The School of Health Professions academic and performance standards and policies are published in the School of Health Professions Student Handbook which can be accessed at: [School of Health Professions Handbook](#). You must demonstrate knowledge obtained in the courses of the program. Academic failure precludes fulfillment of this requirement.

To remain in good standing in the program, you must maintain a "B" average (cumulative grade-point average [GPA] of at least 3.0 on a 4.0 scale). Only grades of "A" or "B" are considered satisfactory in graduate courses with a "DCLS" designation. If a grade of "C" or below is obtained in a DCLS course, the work is considered as unsatisfactory and will not count toward fulfilling degree requirements, and the course must be repeated the next semester in which the course is scheduled (provided that the cumulative GPA in the program is at least 3.0 at the start of that semester). For courses with a designation other than DCLS, only grades of "A", "B", or "C" are considered satisfactory. If a grade below "C" is obtained in a non-DCLS course, the work is considered as unsatisfactory and will not count toward fulfilling degree requirements, and the course must be repeated the next semester in which the course is scheduled (provided that the cumulative GPA in the program is at least 3.0 at the start of that semester). If a grade of "U" is obtained for any course graded on a U/S basis, the work is considered unsatisfactory and must be repeated the next semester in which the course is scheduled (provided that the cumulative GPA in the program is at least 3.0 at the start of that semester). Students can only repeat a course one (1) time and must achieve an acceptable grade on the second try or they may be dismissed from the program. Students may be dismissed from the program if they earn two unsatisfactory grades. This condition applies to any combination of courses (e.g., unsatisfactory grades in two different courses, or unsatisfactory grades obtained during the repeat of a particular course).

Probation

If at any time your cumulative GPA falls below "B" (3.0 on a 4.0 scale), you will automatically be placed on academic probation by the KU MEDICAL CENTER Office of Graduate Studies and will be required to raise your cumulative GPA to at least a 3.0 during the next semester (including the summer semester). Failure to meet this requirement may result in a recommendation that you

terminate graduate study. You must be in good academic standing (i.e., enrolled in at least one credit hour in regular status with a minimum 3.0 cumulative GPA) during the semester in which you wish to graduate. You must have a minimum 3.0 cumulative GPA at the end of your final semester to complete the program.

A student will be allowed to enroll on a probationary status for one semester only. Good standing will be achieved by attaining a cumulative grade point average of 3.0 or above in the DCLS coursework upon completion of the probationary semester. A student not meeting academic requirements for two consecutive semesters (including summer session) may be dismissed. Students being placed on probation will be notified in writing.

Summary of Grounds for Dismissal Due to Poor Academic Performance

- failure to maintain a cumulative program GPA of at least 3.0 for two consecutive semesters
- earning two (2) grades less than a “C” in any courses at any time while in the program.
- failure to pass the residency qualifying examination on the second attempt

Clinical Residency Qualifying Exam Policies

Upon completion of the core curriculum, all degree candidates will complete a comprehensive examination. Students must be in good academic standing with the KU Medical Center Office of Graduate Studies (i.e. hold a minimum 3.0 cumulative GPA) to be eligible for the comprehensive examination. The examination must be successfully completed to qualify for enrollment in residency courses. Students who fail to pass will be allowed to repeat the examination one time upon the recommendation of the student’s Advisory Committee. The repeat examination may not be scheduled within two months of the unsuccessful attempt. Failure to pass the retake examination may result in dismissal from the program.

Academic Misconduct

As cited in the School of Health Professions Student Handbook, **academic misconduct includes, but is not limited to:**

- giving, receiving, or utilizing unauthorized aid on examinations, assignments, preparation of notebooks, themes, reports, projects, and/or other assignments or undertakings;
- misrepresenting the source of academic work;
- plagiarism;
- copying from a textbook or class notes during a closed book exam;
- taking a test or writing a paper for another student;
- securing or supplying in advance, a copy of an exam without the knowledge and consent of the instructor;
- using non-approved technology during an exam;
- giving or receiving of unauthorized aid in the preparation of notebooks, themes, reports, other assignments or in the preparation the capstone;
- falsifying clinical hours or student data
- during clinical residency, engaging in any unprofessional behavior, inappropriate acts or omissions which place the patient in jeopardy;
- during clinical residency, concealing and not reporting any illegal, unethical, fraudulent or incompetent acts of others;
- during clinical residency, committing any breach or violation of the confidence of a person being served;
- committing unethical practices in conducting and/or reporting research;
- Or otherwise acting dishonestly.

Plagiarism. Students must be aware that plagiarism is a very serious form of academic misconduct that can result in immediate dismissal from the program. Students should familiarize themselves with the various forms of plagiarism by visiting sites such as:

- [What is Plagiarism?](#)
- [Plagiarism Website](#)
- [KUMC Library guide to Plagiarism](#)

Failure to abide by regulations or acts of academic misconduct may result in admonition, warning or censure and, in addition, may subject the student to reduction of grade, disciplinary probation, suspension, or expulsion in accordance with University Senate Rules and Regulations, Article II Section 6, [Governance Policy University Senate Rules and Regulations](#).

Non-Academic Misconduct

Students are expected to conduct themselves as responsible and professional members of the University community. While on University or clinical affiliate premises or at University sponsored or supervised events, students are subject to disciplinary action for violations of published policies, rules, and regulations of the University and Regents. Detailed examples and policies regarding non-academic misconduct are outlined in the [School of Health Professions Handbook](#)

The Program Director shall obtain a statement for the student's file that verifies that the student has been informed of these regulations and conditions. The statement shall be signed and dated.

Guidelines for Circumstances of Academic or Non-Academic Misconduct

Each department defines, through the components of its written policies and the written statements of academic and non-academic misconduct, the expectations of that department's students. The department monitors each student's performance relative to these expectations.

Should students jeopardize their status in the department by not performing at the level expected and defined by the department, the student will be notified in writing that their student status is in jeopardy. This notification will take place within five (5) working days from the time the department first becomes aware of the circumstances.

Should this notification be necessary, the department will appoint an appropriate faculty advisor to be available to assist a student who is notified of jeopardized status.

This official written notification shall include the following information:

- a. the reason the student is being so notified;
- b. the potential consequences of the circumstances;
- c. the timeframe in which the student may attempt to rectify the situation;
- d. the steps necessary to rectify the situation;
- e. the name of the faculty advisor appointed to assist the student;
- f. the consequences of the successful or unsuccessful attempt to resolve the matter in the specified timeframe (See Grievance Procedure Below: Clinical Laboratory Sciences, 2a).

Grievance Procedure: Clinical Laboratory Sciences Department

1. If the student has or anticipates a problem relating to status in the program, the student should consult their advisor.
 - a. if the problem is of a general nature and is serious, the student and their advisor should meet with the Program Director.

2. If the problem is with an individual faculty member, the student should communicate with the faculty member involved and together they should try to solve the problem.
 - a. if the problem is not resolved within a week, the student, the student's advisor, the involved faculty member and the Program director shall meet within the next week and work to resolution. (*Note: at the discretion of the department, an extension may be granted. Documentation of this arrangement must be attached to the original notifications*).
 - b. it is within the discretion of the Program Director to talk to the student, their advisor and the faculty member (alone or in a group) to reach a resolution before the scheduled meeting.
 - c. at the time of the scheduled meeting within the second week, the student and the involved faculty member shall provide written documentation setting out problems and providing factual information in support of statements.
 - d. if more time is needed, all parties may meet again at a specified date within a week.
 - e. if all parties agree to a resolution the decision will be binding and settlement will be without prejudice.
 - f. if the problem cannot be resolved among the parties, the Program Director will decide the issue.
 - g. if the student or faculty member is dissatisfied with the resolution, either may seek the involvement of the Dean of School of Health Professions. (*Note: Grievance procedures for grade disputes do not proceed beyond the department level.*)

Grievance Procedure: School of Health Professions and Office of Graduate Studies

The grievance procedure may not be used as an appeal for a grade. Grades should be appealed at the department or program level. Appeals from the decision of a department or program regarding matters of academic or non-academic misconduct can be appealed to the School of Health Professions and the Dean of Graduate Studies.

Appeals procedures apply to situations in which the student wishes to appeal a proposed suspension or dismissal due to alleged misconduct. Procedures may only be pursued after all departmental procedures have been exhausted.

Proposals to suspend or dismiss a student for misconduct shall be sent from the department chair or program director, in writing, to the dean of the School of Health Professions, the vice chancellor for academic affairs, and to the student. The letter shall specifically recite those facts and circumstances relied upon by the program for recommending the proposed discipline. To access the SHP appeals procedure, the student must file, in writing, a Notice of Appeal to the dean of the School of Health Professions within two (2) weeks of the date of the chair's or program director's recommendation of discipline.

See [School of Health Professions Student Handbook](#) and [Graduate Studies Handbook](#).

English Language

ENGLISH LANGUAGE REQUIREMENTS FOR DEGREE PROGRAM: These requirements ***MUST*** be met ***PRIOR*** to beginning the Professional Program. Official documentation of scores must be provided to the admissions committee.

All students ***MUST*** satisfy at least ONE of the following requirements.

- be a natural born citizen of a country where English is the native language; e.g.; United States, Great Britain, Australia, New Zealand or English-speaking provinces in Canada;

- earned a baccalaureate degree or higher from an institution in one of the countries listed above;
- successfully passed (within the last two years) the academic format of the **International English Language Testing System** (IELTS);
 - minimum requirements: overall band score of 7.5 and no part score lower than 7.0;
- successfully passed (within the last two years) the **Internet Based TOEFL**;
 - minimum requirements: at least 23 or higher on the Reading and Listening Sections; a score of 5.0 or 23 or higher on the Writing Section; a score of 26 or higher on the Speaking Section;
- successfully passed (within the last two years) **the Paper-based TOEFL**;
 - minimum requirements: at least 57 on each section with a 5.0 or higher on the **Test of Written English**;
- earned a minimum score of 50 on the **TSE** (Test of Spoken English) exam or a minimum of 50 on the **Speak Test** (available at the AEC, Lawrence campus).

Student Exposure Protocol

Students, if injured or exposed to (mucous membranes or open skin) blood, body fluids, or other infectious material via needle stick or splash while performing duties at an Outside Facility should:

- A. Follow procedures consistent with the institution and report to nearest emergency room if applicable
- B. Student or supervisor calls Student Health (588-1941) and leaves a message regarding the incident (student name, date, and time). Fill out Student Incident Form.
- C. A student health representative will work with the outside agency to assess risk factors and plan follow-up care

The entire Student Exposure Protocol can be found at: [Student Exposure Protocol](#)

Student Advising

The DCLS Program Advisor is available to discuss any aspect of the program with potential applicants prior to being formally admitted to the program. A Major Advisor will be identified by the end of the first Spring semester. The identification of the major advisor is by mutual agreement between the student and the faculty member who must be a member of the KU Med Center Graduate Faculty. A five (5) member GAC should be identified by the end of the second year Fall semester. GAC membership is guided by the major advisor and is by mutual agreement between the student and the committee.

PROGRAM POLICIES

Attendance

1. **Class attendance** is required for face to face and synchronous online courses because the complex material presented is essential for the development of the student in this professional discipline. All assignments and course objectives must be completed to the satisfaction of the instructor. Students are expected to actively engage in their education by attending and/or participating in class activities (face-to-face or at a distance). Faculty is expected to monitor their students' active participation. It is the responsibility of the faculty to report any student who has not attended or actively participated in learning activities for a period of **one week** to the Program Director.
2. **Clinical Residency** – The clinical residency is a full-time commitment. Attendance is mandatory. In the event of serious illness or family emergency, the student must contact the affiliate site AND their DCLS Graduate Advisor early that day to report she/he is ill and will not be in. During residency, the maximum number of excused absences (for any reason) permitted is equal to the number of credit hours for that residency course. Any absences (whether due to illness or not) are expected to be made up at the end of the course for additional time corresponding to the that lost from absence. Failure to make up lost time will result in a grade reduction of 5% for every day not made up. See Clinical Residency Handbook regarding absence policies.
3. **Professional Meetings:**
The department strongly encourages all DCLS students to attend professional meetings while enrolled in the program when possible and consistent with DCLS absence policies.
4. **Leave of Absence:**
 - a) A student desiring to interrupt the curriculum for any reason (e.g., maternity/medical leave) may submit an application for Leave of Absence to the DCLS Program Director. A leave of absence shall not exceed 12 months in length. The student may resume the program the next semester in which courses are scheduled, provided that the student meets the course prerequisites.
 - b) KUMC Registrar policies and procedures for requesting a Leave of Absence can be found at the KUMC Registrar's [Change in Enrollment](#) website.
 - c. Note: Individual course requirements regarding attendance may be more restrictive. Refer to the School of Health Professions Student Handbook for [attendance policies](#) specific to the school. It is the student's responsibility to review the SHP policies on attendance.

Interprofessional Education & Simulation Activities

Changes in the organization and delivery of health services are happening nationwide. Increased team-based care and communication practices are central to the effective delivery of patient-centered care in an environment of expanding access. These changes impact every aspect of the health care system, including the clinical laboratory. In simulation, students are provided the opportunity to hone their skills in an environment that mimics the real-life patient care setting. DCLS program students will have the opportunity to foster clinical skills (e.g. consult with clinicians and interact with patients) and practice interprofessional collaboration utilizing a team approach with other healthcare program students to efficiently deliver comprehensive patient care. Students will be able to integrate complex concepts, correlate laboratory information with patient cases, and contribute their clinical expertise to the healthcare team in a collaborative effort to improve patient care. As part of the KU Medical Center campus-wide initiative to prepare health care practitioners who can deliver care as members of a collaborative team ([Center for Interprofessional Education and Research - CIPER](#)), the Department requires Clinical Laboratory Science students to participate in various interprofessional and simulation activities.

Alertus system and Emergency Contact Information

In order to increase campus safety, yellow Alertus units have been installed on walls around campus. The units are a way for the KU MEDICAL CENTER police department to communicate in real time during an emergency (e.g., severe weather that causes the need for immediate action, situations that affect public safety, hazardous spill or environmental danger). In an emergency, the Alertus units sound an alarm, flash lights, and display a text message with information and instructions. Additionally, an emergency e-mail goes out to all university accounts, and a text message is sent to those individuals who have provided their mobile phone number. All students who have provided phone numbers in Enroll & Pay will automatically receive emergency text messages. If you would like to opt-out of these emergency notification text messages, log onto Enroll & Pay, click on the "Emergency Contact Info" link in the Main menu, and follow the instructions.

Health

The students must maintain physical, emotional, and mental health (well-being), which will permit them to meet the course and program objectives.

Health requirements can be found at [Health Requirements for Enrollment](#) Students will need to meet KU MEDICAL CENTER Health requirements for enrollment and for continuation in the program. Student Health will perform all necessary tests, examinations, and blood work and assist you in filling out all required forms. Please contact 913.588.1941 to make an appointment. Plan to bring all immunization records to your appointment. Because you cannot enroll in classes until your health information is complete, please do not delay.

Health Insurance The University requires all students taking courses at KU MEDICAL CENTER to maintain current health insurance throughout their enrollment. You may choose any health insurance plan. Information about student health insurance can be found here: [Student Health Insurance](#)

The University of Kansas Medical Center offers a health insurance policy for eligible students. This plan is offered through Student Resources and is underwritten by UnitedHealthCare Student Resources. For information about the policy, please visit [United Health Care Student Resources](#).

HIPAA and Related Confidentiality Issues

Students are required to complete the online HIPAA course offered at KU Medical Center. Prior to participating in the clinical residency, the student is required to sign a form whereby they agree to abide by the rules and regulations of the clinical sites utilized by the program while on their premises during any assigned clinical, research or enrichment rotations. Clinical sites other than KU Medical Center may require the student to satisfy their specific HIPAA policies.

Required Additional Training

CPR training will be required prior to clinical residency.

All new and continuing students campus-wide are required to take (and complete at the level of competency indicated on each) the following University training modules annually:

- Computer Security Awareness Training;
- Harassment Tutorial: Respect in the Classroom and Workplace;
- HIPAA Training;
- University/UKP Safety Training;
- University/UKP/Student Workplace Violence Training;
- CITI Training (IRB);
- Student Confidentiality Agreement (this requires reading and checking an "I Accept" box).

Students are notified annually by the KU Medical Center Office of Compliance regarding training requirements and how to access the required modules. Failure to complete the required training modules will result in loss of access to network privileges.

Background Check

On January 1, 2004, The Joint Commission (TJC) instituted new regulations that must be followed in order for hospitals, home health agencies, clinics, etc., to gain or maintain accreditation status. One of these new regulations requires that all persons who are involved in patient care activities, i.e., employees, volunteers AND STUDENTS, must have criminal background checks and other healthcare-related checks. Most public/private school systems are requiring background checks as well.

Acceptance into the School of Health Professions academic programs is conditional, pending the results of a criminal/healthcare-related background check. Acceptance into the Clinical Laboratory Sciences Programs, School of Health Professions, will not be final until the School receives the student's background check information. The School of Health Professions requires only one background check prior to final acceptance and subsequent enrollment.

While most health care facilities with whom the School of Health Professions has affiliation contracts will accept the school's verification that a background check has been performed on a student, some may require a more current report and a drug screen. The cost of any additional screening may be the responsibility of the student.

Policies and Procedures When Applied Experience Cannot Be Guaranteed

Students will not be excused from clinical residency for disabilities or health reasons. Their participation in the educational experience may be modified to fit their disability. Each student's request will be handled on an individual case basis. If the student is restricted for health reasons by the KU Medical Center student health physician, the student will complete a comparable project that has been approved by the curriculum committee.

The DCLS Program diligently coordinates with the clinical residency sites in the applied education of students enrolled in the Program. In the event that a site cannot participate in instruction, an acceptable, alternative site will be identified, and the student is placed at that institution.

Course Evaluations

Course evaluation by students is part of the continuing course and program improvement process. Therefore, your participation is very important. Course evaluations will be distributed by email the week prior to final examinations and are completed on-line by the last day of class. Participation is tracked; however, all student responses are anonymous and will only be presented to faculty as aggregate data. Due to the value that the CLS department places on these evaluations, your course grade will be withheld until the course evaluation is completed. All students are required to submit course evaluations for every course. No points are associated with the course evaluation in the determination of final course grades

Failure to complete a course evaluation will result in a grade of "I" (incomplete) being assigned until the course evaluation has been submitted. Once the instructor has been notified that a student has submitted their evaluation form, the grade will be changed.

Professional Organizations

A variety of opportunities exist for DCLS students to attend professional meetings and/or to participate in professional development activities through professional organizations of relevance in the CLS profession.

All on campus DCLS program students are required to maintain membership (student or professional) with the American Society for Clinical Laboratory Sciences (ASCLS). In addition, DCLS students must participate in the voluntary Credential Maintenance Program (CMP) through the American Society for Clinical Pathology (ASCP) if their original MT or MLS credentials were obtained prior to 2005.

Students are encouraged to participate in one or more of the following professional organizations (list is not exhaustive):

[AABB \(formerly American Association of Blood Banks\)](#)

[American Association of Bioanalysts \(AAB\)](#)

[American Association for Clinical Chemistry \(AACC\)](#)

[American Association of Immunologists \(AAI\)](#)

[American Society for Biochemistry and Molecular Biology \(ASBMB\)](#)

[American Society for Clinical Laboratory Sciences \(ASCLS\)](#)

[American Society for Clinical Pathology \(ASCP\)](#)

[American Society for Hematology \(ASH\)](#)

[American Society for Histocompatibility and Immunogenetics \(ASHI\)](#)

[American Society for Microbiology \(ASM\)](#)

[Association of Molecular Pathology](#)

[Clinical Laboratory Management Association \(CLMA\)](#)

[Genetics Society of America \(GSA\)](#)

[ASCLS-KS, ASCLS – MO, ASCLS – IA or other constituent society of ASCLS](#)

[Southwestern Association for Clinical Microbiology \(SWACM\)](#)

[Heart of America Association of Blood Banks](#)

STUDENT RESOURCES

ACCESS TO RECORDS

Students can request their academic transcripts via KU MEDICAL CENTER Enrollment Services. See information at the following link regarding options for ordering electronically, by mail, or in person:
[KU Med Center Enrollment Services](#)

Requests for copies of clinical contact hour summaries can be made to your academic advisor.

Financial Aid

Dykes Library
913-588-5170

[Student Financial Aid](#)

- Questions about financial aid-programs and process
- Scholarships and grant programs

IT Help Desk Customer Support

913-588-7995

[IT Help Desk and Technical Support](#)

- Email accounts
- Computer Access problems
- Protocol for the help desk to follow when helping you with your email account

Writing Center

The Writing Center at KU Medical Center offers students and residents a welcoming place for discussing writing. Staffed by graduate writing specialist Andrés Rodríguez, Ph.D., the Center offers free tutoring on writing assignments, workshops and 12 presentations, resources, writing groups, and more. The goal is to make students more effective, confident writers by providing feedback on their work and advice on their writing process.

The Writing Center has two locations on campus: 1020B Student Center and Dykes Library G011

Appointments can be made online at [Writing Center Appointments](#) or by phone (913-945-8477; TTY: 711).

Visit the [Writing Center Website](#) for more information.

Student Health

Student Center 1st floor
913-588-1941

[Student Health Services](#)

- Immunizations, Appointments for health/sickness
- Appointments 588-1941
- KU MEDICAL CENTER Student Counseling Center 588-6580
- KU MEDICAL CENTER Emergency 588-6500
- KU MEDICAL CENTER Switchboard 588-5000

KUMC Credit Union

1035 Delp
913-588-5375

[KUMC Credit Union Website](#)

(notary public: \$2 fee for non-members)

Dykes Library

913-588-7166

[Dykes Library Website](#)

Lost and Found

is located in Dykes Library

KU Medical Center Bookstore

913-588-2537

[KUMC Bookstore Website](#)

Parking

Students may purchase yellow parking permits on a space-available basis by contacting
Parking Services Office

3rd Level of the P5 Parking garage
(913) 11 588-5175

Monday through Friday, 8 AM–5PM

[KUMC Parking Website](#)

Online vehicle registration can be completed at: [KUMC Vehicle Registration and Permits](#)

Shuttle service is available from satellite KU MEDICAL CENTER parking lots starting at 6:30AM and run about every 20 minutes throughout the day (more frequently during morning and evening rush hours).

A map of the KU MEDICAL CENTER parking lots and shuttle stops can be found at:

[KUMC Parking Maps](#)

A mobile phone app is available for tracking the location of KU MEDICAL CENTER shuttles. Information can be found at: [Shuttle Service Maps and Schedules](#)

If you are struggling to find a parking spot, call the Parking department at 913-588-5175. They will direct you to an available space, possibly in another color lot (red, etc.)

There is an after-hours security escort. After sunset, you can call campus police at 913-588- 5030 for a free escort to your car, if it is on or near campus.

KU Medical Center Police

[KUMC Police](#)

115 Support Services Facility

2100 West 36 Avenue Kansas City, Kansas 66160-7145

- For immediate access to the campus police, pick up or activate any blue phone on campus - any day, any time. You do not need to dial.

- Emergency: 911

- Non-Emergency: 913-588-5030

- Lost & Found: 913-588-5177

- Escort service starts at 6PM – Dial 8-5030

Covers the area between Chester St (N), 43rd St (S), Fisher St (W) and State Line Rd (E).

Mail

You have been issued an KU MEDICAL CENTER Outlook e-mail account. All University business and department business is conducted only through your Outlook account, so check it regularly. If you have not already done so, you should access your account and change the password assigned to you.

To use your e-mail account, go to [KUMC Outlook Login](#), then enter the username (UserID) and password provided in your email message. Your Outlook account will be the only e-mail address used for program communications.

A mailbox for the receipt of campus and federal mail by Clinical Laboratory Science graduate students is located in the administrative assistant's office (G004A Eaton). Outgoing federal and campus mail can be deposited in the same office. Be certain to include Mail Stop (MS) numbers on items sent through campus mail. The MS number for the Clinical Laboratory Sciences department is MS4048.

KU Medical Center Environment, Health, and Safety Office

[KU Med Center EH&S Office](#)

Links for Health and Safety Programs and Policies

[Helpful Links](#)

Chemical Safety (including Hazardous Materials)

[Chemical Safety](#)

KU MEDICAL CENTER NO-SMOKING POLICY

See: [KUMC is tobacco free](#)

KU MEDICAL CENTER STUDENT RIGHTS AND RESPONSIBILITIES

See: [Know Your Student Rights](#)

ACCOMMODATION OF INDIVIDUALS WITH DISABILITIES

Accommodation Policy:

It is the policy of the University of Kansas Medical Center to provide reasonable accommodation to qualified individuals with known impairments that meet the statutory definition of a covered disability except where such accommodation would impose an undue hardship or present the threat of harm. Reasonable accommodation applies to all aspects of employment and all educational programs, services and activities. Persons with disabilities who are covered under this policy include students who satisfy eligibility criteria; and, with or without reasonable accommodation, meet the technical standards and matriculation requirements of the program.

In order to maintain the integrity of the curriculum and standards of the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), it is inevitable that the inability to adhere to the technical standards will disqualify some students. This does not imply however, that a program has discriminated against these students on the basis of a protected class, e.g., sex, race, color, national origin or ancestry, age, religion or creed, disability, veteran status or sexual orientation. The University is committed to providing equal opportunity and non-discrimination to all members of the academic community, including students.

Procedure for Requesting Accommodation:

Students who believe they may need academic accommodations are encouraged to contact Cynthia Ukoko, in the Academic Accommodations Services Office, as soon as possible to better ensure that such accommodations can be implemented in a timely fashion. Online appointments may also be made at [MedConsult](#). For online information about academic accommodations, please go to [Academic Accommodations](#).

Cynthia Ukoko, Academic Accommodations Services Office
G020 Dykes Library
Mail Stop: 4029
Telephone: (913) 945-7035

Students may also discuss their need(s) for accommodation with faculty or the school's Disability Officer.

**UNIVERSITY OF KANSAS MEDICAL CENTER
SCHOOL OF HEALTH PROFESSIONS
CLINICAL LABORATORY SCIENCES DEPARTMENT**

**TECHNICAL STANDARDS FOR ADMISSION AND RETENTION
DOCTORATE IN CLINICAL LABORATORY SCIENCES**

The expectations for doctorate of clinical laboratory sciences students are published in the Technical Standards you received with the application materials. The standards identify the requirements for admission, retention and graduation of applicants and students respectively.

Therefore, it is the responsibility of the student with disabilities to request those accommodations that they feel are reasonable and are needed to execute the essential requirements. If you have questions about the process for requesting accommodations, please contact: Academic Accommodations Services Office, University of Kansas Medical Center, at 913-945-7035, TDD Kansas Relay Number: 1-800-766-3777.

Please sign and date this form and return it to the Clinical Laboratory Sciences department.

I certify that I have read and understand the University of Kansas Medical Center Doctorate in Clinical Laboratory Sciences Program's *Technical Standards for Admission and Retention* and that I meet each of them, with or without reasonable accommodation.

Signature

Date

Printed or Typed Name



**DOCTORATE IN CLINICAL LABORATORY SCIENCE (DCLS)
DEPARTMENT OF CLINICAL LABORATORY SCIENCES
UNIVERSITY OF KANSAS MEDICAL CENTER**

CERTIFICATION OF RECEIPT

I do hereby acknowledge that I have received a copy of the current DCLS Student Handbook and that I have read and understood the policies and procedures and, will abide by the regulations listed therein.

I have also been provided an opportunity to question the DCLS Program Director about content that I do not understand, and I realize that failure to return this form prevents me from entering a residency site.

Date of Orientation: August 19, 2019

Printed Name: _____

Signature: _____

Date: _____

KU MEDICAL CENTER IS AN EO/AA/TITLE IX INSTITUTION