

MIAMI DADE COLLEGE MISSION STATEMENT

As democracy's college, Miami Dade College changes lives through accessible, high-quality teaching and learning experiences. The College embraces its responsibility to serve as an economic, cultural, and civic leader for the advancement of our diverse global community.

SCHOOL OF HEALTH SCIENCES MISSION STATEMENT

The mission of the School of Health Sciences is to provide excellent, affordable, and accessible health care education and to promote quality health care services throughout the community.

CLINICAL LABORATORY SCIENCE PROGRAM MISSION STATEMENT

The mission of the Clinical Laboratory Sciences (CLS) program is to deliver the highest quality education that is student centered. The CLS program is committed to providing the knowledge, skills, and ethical behaviors required of the profession. We are dedicated to meeting the needs of our community and advancing the role of the Medical Laboratory Professional in health care.

Administrator:

Fabio Nascimento, Chairperson, School of Health Sciences

Faculty:

Rosa Castro, MHS, MT(ASCP), Program Director /Associate Professor
Jaishri Venkatsubramaniam, M.S., MT(AMT), Instructor.
Liset Icaza, M.S. MT(ASCP), Instructor

CLINICAL LABORATORY SCIENCE PROGRAM GOALS

The faculty and staff in the Clinical Laboratory Sciences program recognize their responsibility to educate medical laboratory professionals that will be ready to enter the health care field and provide quality patient care to citizens in the Miami area and any other area where the graduate may choose to practice. The Clinical Laboratory Sciences faculty and staff also recognize their responsibility to students, employers, patients, and the community at large to adhere to the highest academic standards in the delivery of instruction.

The department will develop the student with the goal of producing medical laboratory scientist who have knowledge and skills in the following:

- All major areas practiced in the contemporary clinical laboratory.
- Application of safety and governmental regulations and standards as applied to clinical laboratory science.
- Principles and practices of professional conduct and the significance of continuing professional development.
- Communications sufficient to serve the needs of patients, the public and members of the health care team.
- Principles and practices of administration and supervision as applied to clinical laboratory science.
- Educational methodologies and terminology sufficient to train/educate users and providers of laboratory services.
- Principles and practices of clinical study design, implementation and dissemination of results

Program Goals and Competencies

To achieve our mission the program has established the following goals, which it strives to accomplish with every program student. These statements are used in assessing the progress of our students who are in-program and, ultimately, they also serve as benchmarks that measure how well the program is achieving its goals.

Goal #1 To provide students with the highest quality academic education in the field of Clinical Laboratory Science.

Indicator: Clinical Laboratory Sciences Program at MDC will maintain continued accreditation with the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Indicator: Students in the Clinical Laboratory Sciences Program at MDC will obtain a passing score on the national certification examination and secure a license to practice from the State of Florida.

Goal #2 To assist students in developing an understanding of their role as members of the health care team.

Competency A: Students will treat all personnel with respect.

Competency C: Students will seek continuing education opportunities to promote academic and intellectual growth.

Competency D: Students will be flexible and remain adaptable to changes in the clinical professional environment.

Competency E: Students will develop a sense of responsibility and a realization of the importance of their role in patient care. They will guard the patient's confidentiality and adhere to all HIPPA and OSHA guidelines.

Goal #3 To provide students with the skills to become effective communicators within the health care environment.

Competency A: Students will be able to initiate timely verbal or written communication that is both courteous and professional.

Competency B: Students will understand computer technology and be capable of using the technology for the operation of instruments in the clinical setting.

Competency C: Students will be able to follow instructions both verbally and in a written form.

Goal #4 To develop students so they can acquire the skills necessary to become critical thinkers and problem solvers.

Competency A: Students will use initiative to solve technical problems and perform follow-up procedures.

Competency B: Students will be able to prioritize and organize their work so that patient care can be administered in a timely manner.

Competency C: Students will make use of their clinical knowledge to make decisions regarding laboratory values and take proper action.

Goal #5 To advance in our students the knowledge they will need to perform clinical laboratory procedures safely and competently.

Competency A: Students will advance their knowledge of proper specimen collection and processing.

Competency B: Students will be able to evaluate quality control.

Competency C: Students will be able to follow test procedures and apply test principles in the performance of laboratory assays.

Competency D: Students will be able to follow established laboratory safety rules and guidelines.

Competency E: Students will be able to use clinical diagnostic parameters and correlate test results.

Competency F: Students will be able to demonstrate knowledge of clinical studies

Goal #6. To develop in our students the skills they will need to perform Laboratory Operations and Management

Competency A: Students will be able to apply the skills necessary to perform leadership duties and managerial decision making in the Clinical Laboratory.

Competency B: The student will be able to apply the skills necessary to perform administrative and supervisory roles in the Clinical laboratory

Competency C: Students will be able to accurately train/educate laboratory personnel

Competency C: Students will be able to apply governmental regulations and standard

MEDICAL LABORATORY SCIENCE PROGRAM
COURSE DESCRIPTIONS

Course Number and Title	Course Description	Credits
MLS 4621 Clinical Biochemistry	This course provides the student with the knowledge and understanding of clinical disorders and how biochemical factors and laboratory methods are used for the investigation, diagnosis, and management of patients	4
MLS 4193 Clinical Molecular Diagnostics	Clinical molecular diagnostics course provides an introduction to molecular analysis of biological markers in clinical samples to aid in the diagnosis, monitoring and treatment of diseases	3
MLS 4221 Clinical Urinalysis	The study of body fluids for physical health and identification of abnormalities in relation to disease states	3
MLS 4306 Clinical Hematology	This course is the study of the composition and function of blood; diseases related to blood disorders. Students will receive the necessary skills in the application of hematology diagnostic procedures, interpretation, problem solving and correlation of laboratory findings with disease states	3
MLS 4335 Clinical Hemostasis	This course Provides an overview application of hemostasis (coagulation), as it relates to the medical laboratory. Presents coagulation laboratory principles with hemostasis diagnostic procedures, interpretation, problem solving and correlation of laboratory findings and results in accordance to the disease states	3
MLS 4506 Clinical Immunology	Clinical Immunology will provide an overview of immunology concepts and the theory of some immunologic procedures. The immunologic manifestation of infectious disease and immune disorders will also be covered	3
MLS 4630 Clinical Chemistry	The study of the concepts and principles of Clinical Chemistry. Analytes and lab values are correlated to normal homeostasis and disease states	3
MLS 3705 Laboratory Operations and Management	This course provides students with Quality Management skills necessary in the medical laboratory. Students are exposed to organizational structure along with principles for leadership and managerial decision making and process improvement along with different principles used in Laboratory Instrumentation.	3
MLS 4461 Clinical Diagnostic Microbiology	Clinical Diagnostic Microbiology provides concepts in bacteriology identification methods, rapid identification methods for parasites and fungi and an overview of virology methodology	3
MLS 4552 Clinical Immunohematology	The study of concepts related to the blood group systems, blood antigens and antibodies. The student will analyze the principles, procedures, and clinical significance of testing in genetics, pre-transfusion testing, adverse effects of transfusions, donor selection and components, and hemolytic disease of the newborn	3

<p style="text-align: center;">MLS 3150 Special Topics in Medical Laboratory Sciences</p>	<p>This course stresses the importance of evidence-based practice in the medical laboratory sciences field. Students will be presenting case studies to the faculty and peers in the program. Instruction will emphasize professional, legal and ethics issues affecting the medical laboratory science field. Students will review the material covered in the program to prepare for the comprehensive assessment</p>	<p style="text-align: center;">3</p>
<p style="text-align: center;">HSC 3655 Theoretical Foundations of Health Care Ethics</p>	<p>This course will cover the Theoretical Foundations of Health Care Ethics. The student will learn how to apply the core principles of ethics to the medical and health care decision-making process</p>	<p style="text-align: center;">3</p>
<p style="text-align: center;">HSC 3701 Leadership and Management in Healthcare</p>	<p>This is a leadership and management course that will examine leadership as a process with a tri-fold focus: the leader, the followers, and the situation. The student will learn leadership theories and build leadership skills</p>	<p style="text-align: center;">3</p>
<p style="text-align: center;">HSC 3057 Introduction to Research Methods and Issues in Health Science</p>	<p>This course will provide an overview of research methods used in healthcare. Students will learn the use of effective inquiry through research strategies that address healthcare issues with logical and observational rigor. Students will learn the rudiments relative to the evaluation of research literature, research design and the application of research methods to the clinical setting</p>	<p style="text-align: center;">3</p>