Program Description

The Doctorate in Clinical Laboratory Science (DCLS) program focuses on advanced clinical practice, which prepares medical laboratory scientists to assume expanded roles as integral members of the interprofessional healthcare team in a variety of practice settings. The DCLS offers an innovative educational experience utilizing a blended pedagogy, distance education technology, and clinical practice. The curriculum includes interdisciplinary courses which provides students the opportunity to interact with other healthcare professionals. The clinical practice component further enhances this interaction.

The Rutgers, School of Health-Related Professions (SHRP) DCLS is designed for the certified medical laboratory scientist (MLS-ASCP CM) with an interest in advancing theoretical and clinical learning, practice, and research. The program prepares the certified MLS for advanced practice opportunities with academic and clinical professional growth through:

- advanced expert-knowledge and skills
- critical thinking proficiency
- interdisciplinary collaboration through a focused clinical residency
- increased skills in evidence-based practice, and research methodologies
- conduct translational research in clinical laboratory science

The program is 80 credits beyond the baccalaureate degree. The theoretical portion of the program is web-based. The program requires completion of a one year, full time clinical practicum (residency) and a research project.

Expectations of Students

**Academic:** Student must maintain a “B+” average.
Students are expected to continually maintain matriculation while enrolled in the program. Should a student choose not to register for a course during a fall or spring semester, the student must complete a Maintaining Matriculation/ Leave of
Absence Form indicating Matriculation Continued and submit the form to Enrollment Services. Failure to do so may result in dismissal from the program.

**Internet Access:** The Program makes extensive use of information technologies, and all students are required to have and maintain remote (off-campus) access to Internet services, to include at least Web browsing capability and an e-mail client. The University does not provide these services, but does provide all students with an e-mail address and access to its network, including the Rutgers Virtual Library with full-text research databases and the student Bannerweb system.

**Full-time Part-time Status:**
Full time and part time options are available for the theoretical portion (web-based courses) of the program. The program requires completion of a one year, full time clinical practice (residency) and a research project.

A graduate student is considered full-time if he/she enrolls in a minimum of nine (9) credits per semester. Generally, a student registers for 3-6 credits (1-2 courses) each semester and, therefore, is considered a part-time student. A full time student can complete the program in 4 years. Students must complete the program within 8 years of enrollment.

**Department Faculty**
Please see the department faculty under Clinical Lab Sciences Department/view all campus.

**Primary Campus Location**
The theoretical portion of the program is web-based and the full time clinical practicum is at an affiliate institution. Faculty are primarily based on the Newark and Scotch Plains campuses.

**Curriculum**
The curriculum consists of courses in four core areas: Advanced Clinical Laboratory Science Core (27 credits), Professional Core (22 credits), Research Core (19 credits), and Clinical Practice Core (12 credits). For program requirements and course descriptions refer to the database by selecting your program.

**Mission/Goals/Objectives**
The mission of the DCLS is to prepare graduates for advanced practice in clinical laboratory science, instill the importance of the interprofessional team approach to health care, and increase skills in evidence-based practice and research methodologies to conduct translational research in clinical laboratory science.
The DCLS promotes the general outcomes established for clinical doctorate graduates of Rutgers-SHRP. In addition, through theoretical and experiential learning, the graduate of the Rutgers DCLS Program, as an advance practice professional, will be able to:

- Critically review, appraise and synthesize the health sciences literature;
- Identify and systematically investigate research questions pertinent to clinical laboratory practice;
- Synthesize new concepts, models and theories through the appropriate application of empirical knowledge and the scientific method to help resolve clinical laboratory and health sciences issues or problems;
- Apply the advanced knowledge and technical skills needed to serve as active contributors and/or leaders in the clinical laboratory science professions;
- Apply current knowledge to evaluate or design more effective ways to deliver clinical laboratory and health-related services;
- Use a variety of information technologies to address both theoretical and practical problems, enhance communication, and disseminate knowledge to applicable audiences and interest groups;
- Demonstrate proficiency in both oral and written communication, using both scholarly and technical formats;
- Work collaboratively with others to advance the scientific bases of knowledge in clinical laboratory science via ongoing scholarship;
- Integrate basic principles of ethics and cultural sensitivity within all interpersonal and professional activities.

**Program Competencies**

The Rutgers-SHRP DCLS program implements the competencies developed by the American Society for Clinical Laboratory Science (ASCLS) Professional Doctorate Task Force, and the Graduate Task Force of the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). All general competencies stated shall be achieved in course experiences:

**Patient Care**

- Work effectively with all health care professionals to provide patient-centered care.
- Create and sustain a therapeutic and ethically sound relationship with patients.
- Appropriately adapt communication style and messages to the context of the individual patient interaction.
- Demonstrate caring and respectful behaviors when interacting with patients and their families.
- Gather essential and accurate information about their patients.
- Provide and coordinate patient and family centered health care services and education within inpatient, outpatient, and non-patient settings.
• Provide health care services and education aimed at preventing health problems or maintaining health.
• Obtain and apply information about the local/regional population of patients and the larger population from which their patients are drawn.
• Manage through ordering, interpretation, or supervision laboratory tests that monitor physiological function.

Interpersonal and Communication Skills

• Work effectively with all health care professionals as a member or leader of a health care team or other professional group.
• Apply an understanding of human behavior to interactions with all health care professionals.
• Demonstrate emotional resilience, flexibility, and tolerance of ambiguity.
• Accurately and adequately document and record information regarding the care process for medical, legal, quality, and financial purposes.
• Use information technology to support local, regional, and national health care decisions.
• Use effective listening, nonverbal, explanatory, questioning, and writing skills to elicit and provide information.

Professionalism

• Explain the legal and regulatory requirements, as well as the appropriate role of a Doctor of Clinical Laboratory Science within all healthcare environments.
• Maintain professional relationships with physician and other health care providers.
• Be responsive and accountable to the needs of patients, society and the profession.
• Treat patients and co-workers with respect, compassion, and integrity.
• Abide by ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.
• Demonstrate sensitivity and responsiveness to patients’ current medical status, culture, age, gender, and disabilities.
• Engage in self-reflection, critical curiosity, and initiative in the pursuit of professional improvement education.

Outreach

• Integrate research to promote evidence-based practice for patients with complex acute, critical, and chronic illnesses.
• Integrate the DCLS role into systems, processes, and decision making to function fully within the health care team.
• Serve as a knowledge resource in the design and development of laboratory services for the complex acute, critical, and chronically ill patients.

Continuous Practice Improvement

• Perform practice-based improvement (evidence based practice) activities alone or in concert with other members of the health care delivery team.
• Locate, appraise, and integrate evidence from scientific studies related to patients' health problems.
• Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information to maximize treatment decisions and patient outcomes using diagnostic and therapeutic laboratory procedures.
• Apply information technologies to manage information, access online medical information, and support personal continuing education.
• Recognize and appropriately address gender, cultural, cognitive, emotional, and other biases; gaps in medical knowledge; and physical limitations in themselves.
• Effectively interact with different types of medical practice and delivery systems.
• Practice cost-effective health care and resource allocation without compromise in quality of care.
• Partner with supervising physicians, health care managers, and other health care providers to assess, coordinate, and improve the delivery of health care and patient outcomes.
• Accept responsibility for promoting a safe environment for patient care.
• Recognize and correct systems-based factors that negatively impact patient care.
• Apply medical information and clinical data systems to provide more effective, efficient patient care.
• Utilize principles of case management when overseeing and directing health care services for complex acute, critical, and chronic illness.
• Promote efficient use of resources and provision of quality care to achieve optimal cost-effective outcomes.

Admission Requirements

Application Dates: March 1 for Fall term, and September 1 for Spring Term

Application, fee, and ALL supportive documents must be submitted by these dates.

Admissions Requirements:
• A minimum of a baccalaureate degree from a regionally accredited college or university in the United States.
• Overall minimum GPA: 3.5.
• Professional certification as a generalist Medical Laboratory Scientist from the American Society for Clinical Pathology-Board of Certification, MLS(ASCP)\textsuperscript{CM} with proof of continuing certification maintenance. Submission of ASCP Continuing Education Transcript required.
• Minimum of five years of clinical laboratory experience in the United States, preferably as a generalist medical laboratory scientist.
• Completion of the Rutgers Graduate Certificate in CLS (4 graduate courses) or Rutgers Master degree in Health Sciences-CLS track (MSHS-CLS) preferred.*
• Graduate Record Examination (GRE) General test scores taken within the last 5 years.
  • Graduate Record Examination General test scores forwarded by ETS to Rutgers-SHRP (institutional code: R3116). Notes: (a) according to ETS policy, GRE scores are only reportable for 5 years; (b) applicants should take the GRE early enough to ensure that their scores are received by the submission deadline; (c) because the GRE is one of many factors in the admission decision, we do not apply or set any minimum score or cut-off for either the test as a whole or its components.
• Official transcripts of undergraduate and graduate coursework from ALL institutions attended.
• Curriculum vitae
• Three (3) letters of recommendation from individuals who have the knowledge to evaluate the applicant’s academic and professional performance (2 letters from professional supervisors/pathologists/laboratory manager, and one letter from a college professor.)
• Personal statement/essay addressing career goals and reasons for pursuing the DCLS degree
• Personal interview (on campus or by video-audio conference)

Applicants who have earned a degree from a non-US accredited institution must comply with the applicable University and School guidelines:
• Official copy of foreign transcripts sent directly to Rutgers
• World Education Services Evaluation of transcripts
• TOEFL: Achieving a minimum score of 79/80 on the Internet-based Test of English as a Foreign Language TOEFL exam (or a score of 213 on the computer-based, or 550 on the paper-based exam)

*Some credits may be applied to meet the DCLS requirements if obtained within 5 years of acceptance to the DCLS, and a grade of B or better is received.
The Admissions Selection Process
Selection of applicants for admission is a competitive process that is the responsibility of the program faculty. Decisions are based upon a composite of the overall academic ability (as documented in academic transcripts, undergraduate and graduate from all institutions attended, GRE score) and professional aptitude and work experiences (as described in the resume and letters of recommendation), and the interview. Rutgers places no restrictions on prospective applicants because of their color, creed, race, sex, age, marital status, or national origin. The University recognizes the value of diversity and is committed to providing appropriate support to its student body.

G.P.A. minimum requirement for admissions consideration
Achievement of an overall grade point average of at least 3.5 is required.

Additional Information
For additional information about the application process, contact the Office of Enrollment Services at (973) 972-5336 or via e-mail.

For additional information about the DCLS Program refer to the Department of Clinical Laboratory Science website.

Contact the program at:
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MSHS-Clinical Laboratory Science
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