Program Overview

The Saint Francis Hospital School of Medical Laboratory Science is a hospital-based program that offers a twelve-month clinical internship to students seeking a career in the medical laboratory.

Established in 1964, the school accepts up to 10 students per year. The clinical internship is comprised of didactic and technical instruction in 10 areas of the clinical laboratory: Blood Bank, Chemistry, Coagulation, Flow Cytometry, Molecular/Cytogenetics, Hematology, Immunology, Microbiology, Phlebotomy, and Urinalysis.

We, the faculty, strive to provide a comprehensive clinical internship comprised of lectures, clinical laboratory education, observance of anatomic laboratory procedures, attendance of hospital-sponsored activities, and participation in web-based tutorials and conferences.

I would like to thank you for inquiring about the Saint Francis Hospital School of Medical Laboratory Science Program. If you need additional information about the medical laboratory science profession, please contact:

Nathaniel D. Harden, MS, MLS(ASCP)CM
Program Director, School of Medical Laboratory Science
Saint Francis Hospital
6161 South Yale Avenue
Tulsa, OK 74136
(918) 494-6342
e-mail ndharden@saintfrancis.com
Accreditation

The Saint Francis Hospital School of Medical Laboratory Science is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS), an agency recognized by the Council for Higher Education Accreditation (CHEA).

NAACLS
5600 North River Road
Suite 720
Rosemont, IL 60018
(773) 714-8880
(773) 714-8886 (fax)
email: info@naacls.org
website: www.naacls.org

Mission

To provide an opportunity for carefully chosen men and women, whose general interests are in biology and chemistry, to learn clinical laboratory science and laboratory medicine.

Goals

The Saint Francis Hospital School of Medical Laboratory Science is dedicated to excellence in the program of training men and women to be medical laboratory scientists who meet or exceed all standards necessary for certification and who feel and express confidence in their ability to function effectively in the healthcare setting.

The goals of our program are to:

1. Provide the medical laboratory science student with broad experience in clinical laboratory science through lecture and practical methodology.
2. Provide opportunities for the development of problem solving and critical thinking skills required of a professional medical laboratory scientist.
3. Be attentive and responsive to an ever-changing healthcare delivery system and clinical laboratory industry.
4. Promote an atmosphere of high ethical and moral standards.
5. Exhibit pride, professionalism, and team spirit.
6. Display a caring attitude toward patients, families, and fellow members of the healthcare team.
7. Educate the medical laboratory science student in the importance of continuing education.
8. Produce graduates with technical and scientific competence for an entry level medical laboratory scientist position in a healthcare facility.
9. Systematically evaluate outcome measures for continuous quality improvement.
Program Officials

Medical Director/Advisor:
Sigrid Wayne, M.D.

Program Director:
Nathaniel D. Harden, MS, MLS(ASCP)CM

Advisory Board:
Sigrid Wayne, M.D. - Medical Advisor
Nathaniel D. Harden - Program Director
Jay Hupp - Laboratory Manager
Jennifer Smith - Medical Laboratory Scientist
Sallie Ruskoski, Ph.D. - University Affiliate
Jason Boone - Laboratory Supervisor
Karen White - Manager, Dept of Education
Shirley Stout – Recent Graduate

Faculty:
A faculty list is available upon request.
University Affiliates

The Saint Francis Hospital School of Medical Laboratory Science has established an affiliation agreement with the following universities:

Cameron University
Lawton, OK
Carla Guthridge, Ph.D.

Oklahoma State University
Stillwater, OK
Dana Hatter, MS

East Central University
Ada, OK
Terry Cluck, Ph.D.

Oral Roberts University
Tulsa, OK
Joel Gaikwad, Ph.D.

Midwestern State University
Wichita Falls, TX
Asma Javed, MS, MT(ASCP)

Southwestern Oklahoma State University
Weatherford, OK
Andrea Holgado, Ph.D.

Northeastern State University
Tahlequah, OK/Broken Arrow, OK Campus
Sallie Ruskoski, Ph.D. MT(ASCP)

University of Central Oklahoma
Edmond, OK
Anne Ewing, Ph.D.

A temporary affiliation agreement with a non-affiliated university/college is granted as needed.

OCCLSA

Saint Francis Hospital School of Medical Laboratory Science is a proud member of the Oklahoma Consortium of Clinical Laboratory Science Affiliates (OCCLSA), a group of representatives from accredited hospitals and affiliated universities that are involved in the education of medical laboratory scientists. The OCCLSA is prepared to meet the challenges and rewards of the future in medical laboratory science education in order to promote the advancement of knowledge in the field and to prepare capable individuals to perform in clinical laboratories. Its purpose is to bring together the university and accredited hospital faculty involved in the education of medical laboratory scientists and to analyze the instructional curriculum of both the university and accredited hospital based programs.
Admission Requirements

Students may apply for admission to the School of Medical Laboratory Science if the student is a candidate for a baccalaureate degree in an affiliated university/college, or has a baccalaureate degree and meets the program academic prerequisite requirements.

**Baccalaureate Candidate**
3+1 Option
(3 years of college + 1 year medical laboratory science program internship)

**Post Baccalaureate Candidate**
4+1 Option
(Baccalaureate degree + 1 year medical laboratory science program internship)

Applicants who have not completed their degree must be eligible for a baccalaureate degree from the university/college at the completion of the medical laboratory science program.

Applicants who received their degree seven or more years before application will need to update coursework in Microbiology, Biochemistry, and Immunology with a C or better per course.

Applicants who possess a foreign baccalaureate degree must have their transcript evaluated by an ASCP-approved agency. Refer to [www.ascp.org](http://www.ascp.org) for a complete list of agencies.

Applicants who have prior laboratory experience may shorten their clinical laboratory experience by demonstrating competency on individual clinical performance evaluations and/or hospital final examinations.

**Required Academic Prerequisites**

Applicants must have a minimum overall grade point average of 2.5, and a 2.5 GPA in chemistry and biological science courses with a C or better in the required prerequisites and recommended courses.

**Biology (minimum of 16 credit hours)**
- Microbiology (Bacteriology)
- Immunology
- Human Anatomy or Human Physiology
- Biological Science Elective

**Chemistry (minimum of 16 credit hours)**
- Inorganic Chemistry (two courses)
- Organic Chemistry
- Biochemistry

**Mathematics (minimum of 3 credit hours)**
- College Algebra or higher

**Recommended Courses**
- Parasitology
- Mycology
- Computer Science/Information Systems
- Genetics
- Instrumentation
- Quantitative Analysis
- Statistics
- Cell/Molecular Biology

Prerequisites must be completed prior to admission to the medical laboratory science program.
Application Process

Applicants should apply during Fall of the year preceding entry into the program. The deadline for application and official transcripts is October 15th, established by the Oklahoma Consortium of Clinical Laboratory Science Affiliates (OCCLSA).

Application and academic reference forms may be downloaded.

Download the application
Download the academic reference form

Application and academic reference forms (Adobe PDF) may also be obtained from the affiliated university medical laboratory science advisors, or from:

Nathaniel D. Harden, Program Director
School of Medical Laboratory Science
Saint Francis Hospital Laboratory
6161 South Yale Avenue
Tulsa, OK 74136
(918) 494-6342

To complete the application file, the following information is needed by November 1st:

- List of courses in progress and/or planned
- Academic reference from two professors (standard form)
- Employer reference
- Essential Functions for Admission form with applicant's signature
- Criminal Background Report

Application files will be reviewed by the program director. Students will be scheduled for a personal interview with the Admission Committee at Saint Francis Hospital between November 15th and January 15th.

Important Note: Results of the academic status and background report may render the student ineligible for an interview.

Late applications will not be accepted.

Selection Criteria

Student selection is based on the following criteria:

- Oral and Written Interview
- Career Motivation
- Grade Point Average
- Communication Skills
- Academic References
- Employment Reference
- Criminal Background Report (satisfactory results)

Student selection is non-discriminatory with respect to race, color, religion, sex, age, national origin, and disability.
Student Selection

Selection of students is made in January for the class to begin the first Monday in June. The school participates in the Oklahoma Consortium of Clinical Laboratory Science Affiliates (OCCLSA) Matching Program. Class size is 10 students. Final acceptance is contingent upon the applicant successfully passing a physical exam, drug screen and criminal background check.

Essential Functions for Admission

Essential functions represent the non-academic requirements of the program that students must possess to successfully participate in the program. The following is a list of technical abilities and skills:

**Manual Dexterity:** Possess gross/fine motor skills with eye-hand coordination; grasp various-sized objects with one or both hands; twist and turn knobs; maneuver phlebotomy/microbiology equipment; manipulate/adjust pipettes; use computer keyboard and mouse; a sense of touch and temperature discrimination.

**Mobility:** Move freely and safely in the clinical laboratory, patient-care areas, corridors, and elevators; able to reach laboratory instruments, equipment, countertops, shelves, and patients lying down or sitting up.

**Vision:** Differentiate color shades and fine structural characteristics of specimens by macro/microscopic means; view charts, numbers, and graphs in print or on computer monitor; observe laboratory demonstration of techniques and test procedures; judge distance and depth accurately.

**Hearing:** Possess normal or corrected hearing with or without the use of assistive devices.

**Speech:** Communicate verbally with clarity in English to laboratory/healthcare staff in a timely manner (stat or critical test results); deliver oral presentations to laboratory staff and classmates.

**Writing:** Exhibit legible penmanship in English.

**Reading:** Read and comprehend technical and professional materials (textbooks, journals, instruction manuals) and practical examinations; follow directions printed in English.

**Standing/Sitting:** Tolerate prolonged positioning for several hours due to repetitive tasks.

**Lifting:** Lift and handle objects up to 50 pounds.

**Behavioral Stability:** Remain calm and accurately perform lab duties during emergency and non-emergency situations; be flexible and adaptable to changes; work with infectious/biohazardous specimens and hazardous chemicals; work independently and with others; and demonstrate a professional image.

**Intellectual:** Recall, apply and evaluate laboratory data; prioritize tasks; problem solve and troubleshoot situations; exhibit sound judgment for appropriate corrective actions.

Applicants are given an Essential Functions form to review, sign, and return to the program director prior to the personal interview.
Curriculum

The curriculum consists of 49 weeks of structured educational experiences. A fine balance is kept between theoretical and practical instruction. Students spend approximately 12-14 hours per week in formal lectures and the remaining 24-26 hours per week in the clinical laboratory learning technical skills and developing interpersonal skills and professionalism under actual hospital conditions. Lecture responsibilities are shared by medical laboratory scientists, pathologists, and the program director. There are clinical instructors who coordinate and supervise the practical instruction.

Course Descriptions

All clinical courses cover quality control, computer applications, safety, government regulations, instrumentation, and quality assurance and improvement.

4117 Clinical Microbiology (7 semester hours)
Lectures and supervised laboratory instruction in pathogenic bacteria, fungi, parasites, viruses, and antimicrobial testing, with emphasis on clinical decisions and medical significance.

4125 Clinical Chemistry I (5 semester hours)
Lectures and supervised laboratory instruction in biochemistry methodology and clinical microscopy, with emphasis on clinical decisions and medical significance.

4325 Clinical Chemistry II (5 semester hours)
Lectures and supervised laboratory instruction in biochemistry methodology and clinical microscopy, with emphasis on clinical decisions and medical significance.

4236 Clinical Hematology (6 semester hours)
Lectures and supervised laboratory instruction in routine and special hematology studies, correlating hematological findings with medical significance. Systematized study of disease, cell maturation and function; principles of homeostasis; methodology used in routine and special hematology studies; and correlation of hematological findings with physiological conditions.
4246 Clinical Immunology/Immunohematology (6 semester hours)
Lectures on immunologic (antigen-antibody) responses, serological methodology and theory of immunohematology as applied to blood groups, types, compatibility testing, and blood components. Supervised laboratory instruction in immunology and immunohematology methodology, with emphasis on clinical decisions and medical significance.

4351 Topics in Medical Technology (1 semester hour)
Lectures on principles and practices of the Medical Laboratory, including management education (healthcare delivery systems, ethics, professionalism, communication skills, human resources, and financial management), performance improvement, education methodology, laboratory and hospital information systems, safety and governmental regulations, research design/special projects, and patient case studies.

TOTAL = 30 semester hours

Students must successfully complete all courses in the program to be granted 30 hours of academic credit by the hospital and/or university.
Clinical Instruction

During the first week of the clinical internship, the students will attend orientation followed by instruction in Phlebotomy, Chemistry, Hematology, Immunology/Genetics, Microbiology, and Blood Bank.

**Orientation** - 1 week
- Hospital and Laboratory Policies and Procedures
- School of Medical Laboratory Science Policies and Procedures
- Quality Assurance and Safety Principles and Regulations
- Medical Ethics and Professional Liability
- Phlebotomy Theory, Specimen Collection and Handling Procedures

**Phlebotomy** - 1 week
Includes a one-week rotation at Saint Francis Lab Outreach Center

**Chemistry** - 12 weeks (two rotations)
Includes a one-week rotation at Saint Francis Hospital South

**Microbiology** - 11 weeks (two rotations)

**Hematology** - 12 weeks (two rotations)

**Immunology/Genetics** - 5 weeks

**Blood Bank** - 7 weeks
Includes a one-week rotation in 3-11 Blood Bank

Total = 49 weeks
Policies and Procedures

Student Conduct
Saint Francis Health System will not tolerate discrimination, harassment, or misconduct of an employee or student intern for any reason. All staff and student interns are expected to treat one another with courtesy, respect, and professionalism.

Students must conduct oneself in a manner that does not impair the welfare or educational opportunities of fellow students, lab staff, healthcare workers, or patients and their family members.

A partial listing of conduct subject to disciplinary action includes:

- Dishonesty
- Insubordination (negligence, inappropriate conduct)
- Falsification or fraudulent misuse of hospital documents
- Possession of dangerous devices on hospital premises
- Unauthorized use of hospital equipment, such as computer, telephone, email
- Act of violence toward patients, coworkers
- Intoxication or evidence of drug abuse on SFHS premises
- Plagiarism
- Failure to maintain academic or technical standards
- Texting or sleeping in class or laboratory
- Violation of patient confidentiality

Violations of acceptable conduct will result in implementation of the School of Medical Laboratory Science Disciplinary Action Policy.

Attendance and Punctuality
Daily attendance (Monday through Friday) is required throughout the clinical education program from 6:30 AM to 3:00 PM, 7:00 AM to 3:30 PM, 8:00 AM to 4:30 PM, or 9:00 AM to 5:30 PM depending on the clinical rotation. One week, students are scheduled on second shift from 2:00 PM to 9:00 PM. Attendance is expected during inclement weather. Tardiness and excessive absences will result in disciplinary action.

Academic
In order to successfully complete the medical laboratory science program, the student must:

- Maintain average grade of 75% or better in each lecture and clinical rotation
- Attain the minimum standard or better on all technical skills
- Meet acceptable affective behavior in each lecture and clinical rotation

Grades for lecture and clinical rotations are based on the following grading system:

- 100-90% = A
- 89-80% = B
- 79-75% = C

The final grade is comprised of lecture (40%) and clinical rotation (60%).
Withdrawal
A student must submit a letter of withdrawal to the program director. The letter of withdrawal will be held by the program director up to seven days after submission. The program director will meet with that student and discuss reasons for withdrawal from the program. Suggestions will be offered to the student for continuation of the clinical internship. If the letter of withdrawal is not rescinded within seven days, the program director will terminate the student from the program and the university affiliate will be notified immediately.

Disciplinary Action/Appeal/Grievance Process
A grievance procedure is available for students to use when academic or nonacademic problems arise and remain unresolved through informal means. The Disciplinary Action Policy and Appeal/Grievance Process are outlined in the Student Orientation Manual and reviewed during Orientation Week and/or as necessary.

Probation and Dismissal
Each student has a probationary period of three months at the beginning of the academic year. During this time, student performance is reviewed by the program director. Unacceptable performance during the probationary period will result in dismissal from the program. Unacceptable performance after the first three months will result in the implementation of the Disciplinary Action Policy with the possibility of dismissal.

The School of Medical Laboratory Science has the right to dismiss a student for dishonesty, breach of confidentiality, violation of Hospital/Medical Laboratory Science program regulations, and academic failure at any time during the clinical training.

Benefits and Expenses

Tuition/Fees/Refunds
An affiliated university student will pay tuition to the university. The student is subject to the refund policy of the university.

A non-affiliated university student who possesses a baccalaureate degree will pay a fee directly to the School of Medical Laboratory Science to cover the expense of the clinical laboratory education. Prices are subject to change. **Fees are nonrefundable.**

- Books $800
- Liability Insurance $42
- *Clinical Education Fee to be determined (non-affiliated 4+1 student)
- National Board Exam (ASCP) $225

* The non-affiliated student fee will be the same as the affiliated university student fee, which is determined by the Regional University System of Oklahoma (RUSO). **Contact the program director for more information.**

Financial Aid
Saint Francis Hospital School of Medical Laboratory Science does not offer financial aid to students. Students should contact their university financial aid office or an independent financial institution for information.

Accommodations
Students are expected to make their own living arrangements.
Professional Memberships

Students will become members of ASCP (American Society for Clinical Pathology) and ASCLS (American Society of Clinical Laboratory Science) at no expense to the student.

Scholarships

Several medical laboratory scientist scholarships are available for our students throughout the clinical internship, such as:

- Saint Francis Hospital
- American Society for Clinical Laboratory Science (ASCLS)
- American Society for Clinical Laboratory Science of Oklahoma (ASCLS-OK)
- American Proficiency Institute
- Siemens-ASCP

Graduation

A certificate and pin are awarded by hospital and medical laboratory science program officials upon completion of the following:

- Fulfillment of university requirements for graduation
- Attainment of 75% or better on all course curriculum
- Completion of all clinical rotations prior to the national certification exam dates

Graduation is not contingent upon passing the certification exams.
Career Entry Competencies for Medical Laboratory Science Graduates

The medical laboratory scientist graduate will:

1. Perform routine and complex clinical laboratory testing independently and collaboratively in blood bank, chemistry, hematology, immunology, coagulation, urinalysis, microbiology, and other laboratory specialty areas.

2. Demonstrate computer literacy and knowledge of information management.

3. Identify and evaluate pre-analytical, analytical, and post-analytical variables, utilizing critical thinking and problem-solving skills.

4. Analyze laboratory data to assure the accuracy and validity of results.

5. Exhibit a professional and caring attitude toward patients, members of the healthcare team, and community.

6. Communicate with members of the healthcare team, patients and patient's family.

7. Develop, evaluate, and select laboratory tests, interpretive algorithms, and instrumentation appropriate for laboratory.

8. Possess knowledge and skills to educate laboratory professionals, members of the healthcare team, patients, and community.

9. Possess concepts and principles of laboratory operations (i.e., human resource management, marketing, financial operations, regulatory compliance, safety, quality management, professional development, and research development.

Certification Exams

Student interns are eligible to take a certification exam offered by a national certification agency after successfully completing the School of Medical Laboratory Science and university requirements for graduation. The national certification exam is given to recognize the competency of an individual who has met specific criteria and who possesses the knowledge and skills essential to performing tasks for an entry-level medical laboratory scientist.

Program Outcomes

Saint Francis Hospital School of Medical Laboratory Science statistics for the past 10 years are as follows:

- Graduation Rate: 96%
- Attrition Rate: 4%
- 1st Attempt National Board Exam Pass Rate: 97%
- Job Placement Rate: 100%
- Saint Francis Hospital Graduate Retention Rate: 65%

We are proud to say, employer surveys of graduates indicate high caliber performance on the job. Join our team!

Contact Information

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Other Resources

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American Society for Clinical Pathology - www.ascp.org
American Society for Clinical Laboratory Science - www.ascls.org
American Medical Technologists - www.amt1.com