



What does a Clinical Laboratory Scientist Do?

- Performs laboratory analyses in all departments of the clinical laboratory, using samples (blood, urine, etc.) from the human body.
- Provides invaluable information for the prevention, diagnosis, treatment and management of disease.
- Uses sophisticated biomedical instruments to generate accurate and reliable test results.
- Interprets quality assurance parameters.
- Troubleshoots analytical instruments.
- Develops and modifies testing methods.

Career Opportunities

- Hospitals and private clinical labs.
- Research (develop & test new methods)
- Public Health (state health labs, community health projects, environmental testing, Peace Corps)
- Specialty Laboratories (forensics, fertility, veterinary)
- Biotechnology (product research/development, data analysis, quality assurance)
- Sales and Marketing (biomedical supply, pharmaceutical companies)
- Laboratory Computer Systems
- Compliance Inspector
- Infection Control

Employment outlook is very good due to an increase in retirements and an existing shortage of laboratory professionals. Starting salaries of recent graduates of the program average ~\$70K annually in the San Francisco Bay Area.

What kind of person would make a good CLS?

Someone who:

- Is detail-oriented.
- Has good hand-eye coordination and physical stamina.
- Has multitasking ability.
- Has good communication skills.

How do you become a CLS?

The California Department of Health Care Services requires that CLS trainees complete an approved clinical education program and internship before taking national certification board examinations required for licensure.

Fees:

Students enroll for two regular university semesters and through the College of Extended Learning for Summer, Winter-intersession, and partial Spring/or Fall semesters. The tuition is approximately \$14,500 for the entire program, not including books and living expenses.

Fees are subject to change. See the website for updated course fee information.

How to apply to the program:

The program is offered twice a year, starting in the Fall or Spring semester. See the website for application deadlines and forms: <https://chss.sfsu.edu/cls/>

Qualified students will be interviewed on campus by clinical education coordinators and SFSU CLS faculty.



CLS Internship Program—SCI 202
College of Health & Social Sciences
1600 Holloway Avenue
San Francisco, CA 94132
Phone: 415-338-2332

Clinical Laboratory Science Internship Program



- ▶ SFSU's program is the largest in Northern California, and has been training CLS students since 1977.
- ▶ SFSU is accredited by the National Accreditation Agency for Clinical Laboratory Sciences (NAACLS).
- ▶ SFSU interns passed state and national exams at an average passing rate of 97%.

<http://cls.sfsu.edu/>



The SFSU CLS Internship Program consists of lectures and student laboratory experiences at the university followed by practical clinical experience at affiliated clinical laboratories.

The program emphasizes laboratory principles and procedures, clinical significance and application, principles and practice of quality assurance, problem-solving, principles of laboratory management and supervision, safety, instructional methodology, and computer applications.

Graduates of the program are eligible to take national certification exams and apply for the California State Clinical Laboratory Scientist License.

What's the schedule like?

The **Campus phase** consists of **one semester** of lectures and laboratories. Classes meet Monday through Friday, typically from 9-5 pm.

Subjects covered include hematology, hemostasis, bacteriology parasitology, mycology, chemistry, blood banking, urinalysis, and laboratory administration.

This phase has been described by students as "intense", but incredibly practical in preparation for the actual clinical laboratory experience.

The **Clinical phase** takes place over the next **40 weeks**. Students apply the skills and knowledge gained on campus to the day-to-day laboratory environment. They participate in patient workload, perform pre-rotation and final rotation assessment in each rotation, and will take practical exams in some rotations.

Note:

The CLS program has expanded to offer the didactic pre-clinical experience as an online curriculum combined with required participation in on-campus sessions.

Admission Requirements:

Possession of a California Clinical Laboratory Scientist Trainee License.

Baccalaureate degree in Biology, Chemistry, or equivalent, which must include:

18 semester or equivalent quarter hours of biological sciences including:

- Immunology
- Hematology
- Medical Microbiology

16 semester or equivalent quarter hours of chemistry, including instruction in:

- Quantitative Analysis
- Biochemistry

3 semester or equivalent quarter hours of :

- Physics, including instruction in principles of light and electricity

and a course in:

- College-level mathematics

Recommended courses:

Parasitology, Virology, Mycology
Anatomy/physiology
Molecular biology
Genetics

Minimum GPA: **3.0**, as per Graduate Studies requirements.

Three letters of recommendation from science instructors or employers.

Proof of Hepatitis B vaccination or immunity to HBV.

U.S. citizenship or Resident Alien status.

*Foreign degree applicants should check requirements on CLS website.



Clinical Affiliates:

San Francisco:

- Kaiser Permanente Medical Center
- San Francisco General Hospital
- UCSF Medical Center
- California Pacific Medical Center
- San Francisco VA Medical Center

East Bay:

- Alta Bates Medical Center (Berkeley)
- Kaiser Regional Laboratory (Berkeley)
- Alameda County Medical Center (Oakland Highland Campus)
- Kaiser Permanente Medical Center (Antioch, Oakland, Richmond, Walnut Creek)

S.F. Peninsula & South Bay:

- Kaiser Permanente Medical Center (South San Francisco, Redwood City)
- El Camino Hospital (Mountain View)
- Stanford University Medical Center (Palo Alto)
- VA Palo Alto Health Care System (Palo Alto)
- BioReference Laboratories, Inc. (Campbell)

North Bay:

- Petaluma Valley Hospital (Petaluma)
- Queen of the Valley Hospital (Napa)
- Santa Rosa Memorial Hospital (Santa Rosa)
- Kaiser Permanente Medical Center (Vallejo, Vacaville, San Rafael, Santa Rosa)

Central Coast/Central Valley:

- Kaiser Permanente Medical Center (Fresno, Modesto, Roseville, Sacramento)
- Marian Medical Center (Santa Maria)
- Kern Medical Center (Bakersfield)
- Sonora Regional Medical Center (Sonora)

Most affiliates provide a stipend ranging from \$1000-2000 per month. Stipends are subject to change, and are not guaranteed by the University.

Students with special needs may request reasonable accommodations to meet program and professional expectation. These arrangements must be requested prior to starting the program.