

Experience.
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Departments
and Programs
in the College
of Science

Biochemistry &
Biophysics

Biology

Botany & Plant
Pathology

Chemistry

Environmental
Sciences

Geosciences

Mathematics

Microbiology

Molecular &
Cellular Biology*

Physics

Pre-professional
Programs in the
Health Sciences

Professional
Science Masters*

Science &
Mathematics
Education*

Statistics*

Zoology

*graduate program only

Pre-clinical Laboratory Science

... a pre-professional option within a General Science degree. Clinical laboratory science is a profession that combines aspects of medicine with skills in a clinical laboratory setting. Clinical laboratory scientists are the detectives of the health care world, performing a wide variety of laboratory analyses, both routine and highly specialized, to support medical decisions. The test results are used by health care practitioners such as physicians, nurses, and physician's assistants to determine the presence, extent, and cause of disease; to evaluate and monitor therapy; and to assess, optimize, and improve testing protocols.

Career Opportunities

The U.S. Department of labor expects job opportunities to be excellent for clinical laboratory scientists because the volume of laboratory tests continues to increase with both population growth and the development of new types of tests. Although hospitals are expected to continue to be the major employer of clinical laboratory workers, employment is expected to grow faster in medical and diagnostic laboratories, offices of physicians, and all other ambulatory health care services.

U.S. Department of Labor, Bureau of Labor Statistics. *Occupational Handbook 2006-07*.

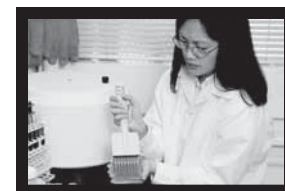
Clinical laboratory scientists work in a variety of settings processing various laboratory samples: hospitals, independent laboratories, clinics, public health facilities, forensic crime laboratories, as well as for federal and state regulatory agencies. Other employers include veterinarians, zoos, pharmaceutical companies, research & development laboratories, industrial firms, and diagnostic instruments manufacturers.

Current demand for clinical laboratory scientists is extremely high, with graduates being immediately employed upon completion of the program. The annual starting salary for clinical laboratory science graduates in the Western United States ranges from \$40,000 to \$50,000. Higher salaries are available for working evening and/or night shifts. Experienced clinical laboratory supervisors and managers can attain salaries in the range of \$50,000 to \$80,000.

Preparing for Clinical Laboratory Science

Clinical laboratory scientists must be certified by the American Society of Clinical Pathologists (ASCP) or the National Certification Agency (NCA). Certification requires 12 to 15 months of training at an accredited professional school of clinical laboratory science. Oregon currently has one such school jointly administered by the Oregon Health and Science University (OHSU) and Oregon Institute of Technology (OIT); other schools are located throughout the U.S. A complete listing of clinical laboratory science programs in the U.S. can be found at <http://www.nacls.org/search/programs.asp>.

Most clinical laboratory science schools require a Bachelor of Science degree for admission to their educational program; however, some schools (notably OHSU) accept students who have had three years of appropriate college work (113 quarter hours).



General Science/ Pre-clinical Laboratory Science

Curriculum

The curriculum for the OSU General Science Pre-clinical Laboratory Science major was developed in cooperation with local clinical laboratory science professional schools, and OSU students have shown a high success rate in these programs. Most students at OSU that are interested in Clinical Laboratory Science complete a B.S. degree at OSU before applying to and attending a clinical laboratory science school. Other students may opt for the "3+1" program, where they complete the necessary prerequisites at OSU (typically in 3 years) before applying to the 15-month professional program offered by OHSU/OIT.

Course of Study

An official graduation checklist may be obtained from an advisor.

Requirements for an OSU awarded degree include 48 credits of baccalaureate core (BC) courses, consisting of writing/speech (9 cr.), mathematics (3 cr.), fitness (3 cr.), physical and biological sciences (12 cr.), western culture/cultural diversity/literature & arts/social processes (12 cr.), difference, power, and discrimination (3 cr.), synthesis (6 cr.), and a writing intensive course (3 cr.).

Below is a sample course of study for the B.S. program. If a student wishes to complete the "3+1" program or to apply to clinical laboratory science programs other than OHSU/OIT, different courses may be required; see advisor for details.

Freshman Year			Sophomore Year		
		credits			credits
Biology	BI 211, 212, 213	12	Organic Chemistry	CH 331, 332, 337	12
	CH 121, 122, 123 OR				
General Chemistry	CH 221, 222, 223	15	Cell and Molecular Biology	BI 314	4
College Algebra	MTH 111	3	General Microbiology	MB 302, 303	5
BC: Writing I	WR 121	3	Statistics	ST 201, 209	4
Orientation to Microbiology	MB 110	1	BC: Writing II	WR 222	3
BC & electives		6	Terminology of Health Sciences	PHAR 210	2
			BC & electives		15

Junior Year			Senior Year		
		credits			credits
Genetics & Molecular Biology	MB 310	3	Completion of an accredited professional program in clinical laboratory science or Human Anatomy & Physiology, Z 331, 332, 333 (9 cr.); Human Anatomy & Physiology, Z 341, 342, 343 (6 cr.) plus additional electives to total 60 upper division credits.		
Medical Immunology	MB 416	3			
General Biochemistry	BB 450, 451	7			
Critical Writing & Experimentation	MB 311	3			
General Physics	PH 201, 202, 203	15			
BC & electives		14			

What to know about Oregon State University

Head Advisor

College of Science
128 Kidder Hall
541-737-4811

OSU Admissions

104 Kerr Administration
541-737-4411
800-291-4192

OSU Financial Aid

Student Employment
Loans & Scholarships
College Work Study
218 Kerr Administration
541-737-2241

OSU Registrar

102 Kerr Administration
541-737-4331

OSU Housing

102 Buxton Hall
541-737-4771

OSU Website

<http://oregonstate.edu>

For more information, please contact:

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