A
dministered through the Department of Biological Sciences, the Clinical Laboratory
Science (CLS) program is nearly identical to the standard Biological Sciences con-
centration, except that Biology 210, 310 and 370 are also required. The student takes
12 courses in the Biological Sciences, two years of Chemistry, a year of Physics, a year of Cal-
culus, and courses in Computer Science and Statistics. Upon completing the requirements
for the baccalaureate, the student spends one year in an internship at a medical center or
hospital associated with DePaul University.

Successful completion of National Board Examinations (administered by the American
Society of Clinical Pathologists) permits the graduate to practice as a Clinical Laboratory Sci-
entist in all 50 states. The student may also continue graduate studies in CLS to earn a doc-
toral degree.

PROGRAM COMMITTEE
LEIGH A. MAGINNIS, PH.D.,
Chair (Biological Sciences)
University of Hawaii
STANLEY A. COHN, PH.D.,
Allied Health Advisor
University of Colorado

BACHELOR OF SCIENCE
LIBERAL STUDIES PROGRAM
In addition to the 28 quarter hours required in the liberal studies core, students are
required to complete 48 quarter hours distributed through five learning domains as part of
their Bachelor of Science degree in Clinical Laboratory Science. The number and distribution
of courses in each of the areas are as follows:

Core: 28 quarter hours required
First Year Program: (16 quarter hours required) Discover Chicago or Explore Chicago,
Focal Point Seminar, and Composition and Rhetoric I and II.
Sophomore Seminar: (4 quarter hours required) Sophomore Seminar on Multiculturalism
in the United States
Junior Year Experiential Learning: (4 quarter hours required) If your junior year exper-
iential learning requirement also fulfills a major field requirement, you may substitute a lib-
eral studies domain elective (from outside your major field area) or the third course in the
modern language option for this requirement.
Senior Capstone: (4 quarter hours required) Clinical Laboratory Sciences requires stu-
dents majoring in Clinical Laboratory Sciences to complete the senior capstone in Clinical
Laboratory Sciences, unless you are a double major and/or in the Honors program. If you are
a double major and/or in the Honors Program you must follow the capstone guidelines for that
area if the capstone is required. If the capstone is optional in the other areas, you can elect
which capstone to complete.
Arts and Literature: 12 quarter hours required. At most 2 courses from the same depart-
ment or program.
Philosophical Inquiry: 8 quarter hours required.
Religious Dimensions: 8 quarter hours required; 4 quarter hours in patterns and problems,
and 4 quarter hours in traditions in context.
Scientific Inquiry: not required.
Self, Society and the Modern World: 12 quarter hours required. At most 2 courses from
the same department or program.
**Understanding the Past:** 8 quarter hours required; 4 quarter hours of history pre-1800 and 4 quarter hours of history primarily between 1800-1945. In addition, courses must be from two different categories: 1) Asia, 2) Latin America, 3) Africa, 4) North America or Europe and 5) intercontinental or comparative.

**PROGRAM REQUIREMENTS**

**I. STANDARD CONCENTRATION**

**Biological Sciences:**
- 101 General Biology I
- 102 General Biology II
- 103 General Biology III
- 210 Microbiology
- 215 Ecology
- 250 Cell Biology
- 260 Genetics
- 310 Vertebrate Physiology
- 370 Immunobiology
- and three additional Biology courses, one of which must include a laboratory.

(Biology 115, 118, 121, 122, 155, 156, 160, 161, 166, 202, 203, 204, 206, 208, 224, 239, 256, and 257 do not generate credit toward the major.)

**Chemistry:**
- 111 General and Analytical Chemistry I
- 113 General and Analytical Chemistry II
- 115 General and Analytical Chemistry III
- (or General Chemistry I and 133 General Chemistry II;
- 171 Organic Chemistry I
- 173 Organic Chemistry II
- 175 Organic Chemistry III. (Unless special permission is granted by the Biology Department, students are required to take the first-year chemistry courses simultaneously with Biology 101, 102, and 103.)

**Physics:**
- 150 General Physics I
- 151 General Physics II
- and 152 General Physics III.

**Mathematics/Computer Science/Statistics:**
- Mathematics 150 Calculus I
- Mathematics 151 Calculus II
- Mathematics 152 Calculus III (or Mathematics 147, 148 and 149 or Mathematics 160, 161, and 162 or Mathematics 170, 171 and 172);
- Computer Science 239 Personal Computing for Scientists, and one statistics course: Mathematics 242 Elements of Statistics; 348 Applied Statistical Methods I; or Psychology 240 Statistics I.

Students may be advised on the basis of their performance on the Mathematics Diagnostic test to take one or more pre-calculus courses.

**SEQUENCING**

Since programs in the Biological Sciences tend to be structured, it is useful for students to take courses in sequence. Students should begin with the General Biology and Basic Chemistry sequences. These are prerequisite to Cell Biology, Genetics, and Organic Chemistry, which should preferably be taken in the sophomore year. Since calculus is required, students should also begin their study of mathematics as soon as possible, preferably prior to their junior year, so that they can be adequately prepared for the General Physics sequence, best taken in the junior year. While the Departmental advisor can help individual students plan alternatives if necessary, especially for transfer students, the sequence presented above is highly recommended and most likely to be completed in a timely fashion.

The predominance of chemistry and biology sequences in the freshman and sophomore years generally dictates that, with the exception of the Liberal Studies Core courses, the majority of the Liberal Studies courses may be postponed until the junior and senior years. Students may therefore take fewer Liberal Studies courses in the first two years, concentrating instead on major field requirements which are prerequisites to upper division courses. Students will complete their post-graduate (fifth year) internship at an associated hospital school of medical technology.