in the classroom, biological topics are frequently addressed by chemists and the chemistry of biological processes is often treated by biologists. Kenyon’s chemistry and biology departments offer an interdisciplinary program including two majors, biochemistry and molecular biology, each of which combines aspects of their curricula. The biochemistry and molecular biology majors are intended for students whose interests lie at the exciting interface of chemistry and biology.

    The biochemistry major provides a chemistry-based curriculum with a significant biology component, producing a solid background for continuing graduate work in biochemistry and chemistry. The molecular biology major combines a substantial chemistry background with detailed studies in cellular and molecular biology that will prepare students for postgraduate studies in these fields.

    Biochemistry and molecular biology majors are encouraged to include undergraduate research as part of their curriculum, especially if they intend to continue in these fields after Kenyon. There are several options for collaborative research with faculty members from the departments of biology and chemistry. These include courses on research strategy (BIOL 385,386; CHEM 375,376) as well as honors and independent study.

students should refer to the departmental descriptions for details.

An oversight committee for biochemistry and molecular biology, composed of faculty members from the chemistry and biology departments, administers the program and determines requirements for the Senior Exercise and for the Honors Program. Students interested in these majors should contact either of the program codirectors, Anthony Watson (for biochemistry) or Joan Slonczewski (for molecular biology).

Requirements for the Majors

The biochemistry major and the molecular biology major have some requirements in common. In addition, each of the majors has its own set of required courses.

Courses Required for BOTH Majors (6 units)

BIOL 113 From Cell to Organism (1/2 unit)
BIOL 114 Genetics and Development of Organisms (1/2 unit)
CHEM 111,112 or 115,116 Introductory Chemistry (1 unit)
CHEM 113,114 or 117,118 Introductory Chemistry Lab (1/2 unit)
CHEM 231,232 Organic Chemistry (1 unit)
CHEM 233,234 Organic Chemistry Lab (1/2 unit)
BIOL 363 Molecular Biology and Genomics (1/2 unit)
BIOL 364 Gene Manipulation (lab) (1/4 unit)
CHEM 335 Chemical Kinetics and Thermodynamics (1/2 unit)
CHEM 356 Biochemistry (1/2 unit)
CHEM 371 Biochemistry Lab (1/4 unit)
Additional Courses
Required for the Major in
Biochemistry (1 1/2 units)

In addition to the requirements listed
above (under courses required for
both majors), students majoring in
biochemistry must complete the
following courses:

- CHEM 341  Instrumental
  Analysis (1/2 unit)

- Two lab courses from the
  following: CHEM 372, 373, 374,
  375, 376 (two courses of 1/4 unit
  each, for a total of 1/2 unit)

- One course from: BIOL 109-111
  (lab), 238, 321, 341, 345, 366
  (1/2 unit)

- The Senior Exercise, under the
  supervision of the Department of
  Chemistry

Additional Courses
Required for the Major in
Molecular Biology
(1 1/2 units)

In addition to the requirements listed
above (under courses required for
both majors), students majoring in
molecular biology must complete the
following courses:

- BIOL 109-111  Introductory
  Laboratory; BIOL 110 may
  substitute for 111 (1/2 unit)

- Two courses from: BIOL 233, 238,
  255, 321, 341, 345, 366 (1 unit)

- The Senior Exercise, under the
  supervision of the Department of
  Biology

Honors

Honors thesis projects may be
conducted under the direct supervi-
sion of a faculty member in either
department (biology or chemistry) for
either major (molecular biology or
biochemistry). In either one of the
majors, the successful passing of an
honors thesis in conjunction with an
honors examination is sufficient
substitution for the Senior Exercise.