

DEPARTMENT OF CHEMISTRY AND INDUSTRIAL HYGIENE

<https://www.una.edu/chem-ih/>

The Department of Chemistry and Industrial Hygiene offers major programs in chemistry and in industrial hygiene leading to the Bachelor of Arts or Bachelor of Science degree, a minor program in chemistry, supporting coursework for other major programs and pre-professional curricula, coursework applicable to physical science requirements in the general studies components, and the cooperative programs described below. The department also provides the subject field for the preparation of secondary teachers of chemistry offered through the College of Education and Human Sciences. Students with majors in chemistry, industrial hygiene, or chemistry as a teaching field for education certification are required to take an exit examination for graduation.

The professional chemistry option has been approved by the American Chemical Society since 1973 and is designed especially for students who wish to prepare for industrial chemistry or for graduate study in chemistry. Requirements for the professional chemistry option include prescribed ancillary courses in computer science, mathematics and physics.

The professional biochemistry option is approved by the American Chemical Society and designed for students who wish to prepare for graduate study in biochemistry, or a related professional school such as medical, pharmacy, or dental school. Requirements for the professional biochemistry option include prescribed ancillary courses in biology, computer science, mathematics and physics.

The general chemistry option is designed for students who wish to take a general major in chemistry or to satisfy preprofessional requirements for medicine, dentistry, medical technology, and similar programs. Requirements for the general chemistry option include prescribed ancillary course-work in computer science, mathematics, and physics.

The major in industrial hygiene was first accredited by the Applied Science Accreditation Commission (ASAC) (now known as ANSAC-Applied and Natural Science Commission) of ABET, Inc. in 2001 and is designed to prepare students for direct entry into positions in industry, government, and other organizations as industrial hygienists and for entry into graduate programs in environmental health and safety. Major field preparation is directed to the recognition, evaluation, and control of health hazards in the workplace from biological, chemical, and physical sources and combines primary study in chemistry and in industrial hygiene with supporting coursework from biology, mathematics, and physics.

The basic sequences in chemistry are Introductory Chemistry (CH 101)-Introductory Chemistry Laboratory (CH 101L) and Introduction to Organic and Biochemistry (CH 102)-Introduction to Organic and Biochemistry Laboratory (CH 102L) or General Chemistry (CH 111)-General Chemistry Laboratory (CH 111L) and General Chemistry (CH 112)-General Chemistry Laboratory (CH 112L) as determined by the particular program to be followed. Students who do not have a high school preparation in chemistry must take Introductory Chemistry (CH 101)-Introductory Chemistry Laboratory (CH 101L) as the first courses, to be followed either by Introduction to Organic and Biochemistry (CH 102)- Introduction to Organic and Biochemistry

Laboratory (CH 102L) for students whose programs require these courses or only a year of physical science, or by General Chemistry (CH 111)-General Chemistry Laboratory (CH 111L) for students whose programs call for General Chemistry (CH 112)-General Chemistry Laboratory (CH 112L). For programs requiring General Chemistry (CH 112)- General Chemistry Laboratory (CH 112L), students with one or more units of high school chemistry enter General Chemistry (CH 111)-General Chemistry Laboratory (CH 111L) as the first courses. Credit in Introductory Chemistry (CH 101)-Introductory Chemistry Laboratory (CH 101L) and Introduction to Organic and Biochemistry (CH 102)- Introduction to Organic and Biochemistry Laboratory (CH 102L) may not be applied to the minimum hour requirements for major or minor programs in chemistry. Special provision is made for advanced placement in chemistry through CEEB Advanced Placement Examinations or through CLEP testing. (See Advanced Placement Examinations and CLEP)

The Cooperative Education and Internship Program in Chemistry and Industrial Hygiene

In conjunction with several industries and governmental laboratories, the University provides opportunities for a cooperative education (co-op) and internship program in chemistry and industrial hygiene. The program involves the option of alternating co-ops or preprofessional internships. Under the alternating co-op option, students work full-time one semester and attend classes full-time the following semester for a rotation of three semesters, equaling 52 weeks of work experience. Under the pre-professional internship option, students work a minimum of 150 contact hours during one regular semester or regular summer term.

Eligible students must be in good standing (unrestricted admission status and without academic and non-academic holds) and have attained a minimum 2.5 cumulative GPA with the following classifications: sophomores or juniors for co-ops and seniors for internships. Students should consult the department chair for detailed information and applications.

Majors

- BA/BS Major in Chemistry (<https://catalog.una.edu/undergraduate/colleges-programs/arts-sciences/chemistry-industrial-hygiene/chemistry-ba-bs>)
- BA/BS Major in Industrial Hygiene (<https://catalog.una.edu/undergraduate/colleges-programs/arts-sciences/chemistry-industrial-hygiene/industrial-hygiene-ba-bs>)

Minors

- Chemistry Minor (<https://catalog.una.edu/undergraduate/colleges-programs/arts-sciences/chemistry-industrial-hygiene/chemistry-minor>)