Transfer QuickGuide
Chemistry at UNC

Are you a transfer student interested in majoring in chemistry while at UNC Chapel Hill? Here are a few helpful tips:

General information about the Chemistry Program
(UNC-Chapel Hill Undergraduate Bulletin, 2016)
Chemistry is the scientific study of the composition and properties of matter and the investigation of the laws that govern them. Classically, chemistry is divided into several sub-disciplines.

- **Organic chemistry** deals primarily with carbon compounds and **inorganic chemistry** with compounds of the other elements.
- **Physical chemistry** seeks to describe relationships between the chemical and physical properties of all substances.
- **Analytical chemistry** studies the analysis of the chemical composition of all substances.
- **Biological chemistry** pursues the chemistry of living organisms.

At the interface of chemistry with other sciences are active fields fueled by insights gained from two ways of thinking about things: for example, chemical physics (including polymer chemistry, the chemical analysis, and synthesis of compounds made up of repeating structural units), chemical biology, organic geochemistry, and the extensive chemical problems in biotechnology, nanotechnology, material sciences, and molecular medicine. In all of these areas the chemist’s approach may be theoretical, experimental, or both.

**Careers and Skills** // A *degree in chemistry will prepare you for a variety of careers.*
A degree in chemistry provides access to many opportunities including work in quality control for a variety of substances or cutting edge innovation in chemical engineering or work as an industrial chemist. A degree in chemistry can prepare you to work as an instructor in a high-school chemistry classroom or to develop new chemical technologies for use in business, medical, and even environmental settings. Those interested in writing may choose to pursue a career in science writing; alternatively, those with an interest in innovation are able to pursue a career in applied research and product development. A chemistry degree will help you to develop skills highly sought after for any workplace, including: the ability to solve complex problems, analyze data, and consider multiple aspects of policies and decisions.

**Note:** *If you intend to pursue a chemistry degree at UNC, please attend the transfer orientation for chemistry majors on the day prior to the start of classes. Contact Chemistry Student Services (dlbatts@email.unc.edu) for more information.*
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Major Requirements // If you plan to transfer with junior status and graduate with a BA or BS from UNC, we recommend completing these courses prior to transferring.

To pursue either the BA or the BS, complete:
☐ MATH 110 – Algebra-Placement credit
☐ MATH 231 – Calculus of Functions of One Variable I
☐ MATH 232 – Calculus of Functions of One Variable II
☐ CHEM 101 & 101 Lab – General Descriptive Chemistry I
☐ CHEM 102 & 102 Lab – General Descriptive Chemistry II
☐ CHEM 261 – Introduction to Organic Chemistry I
☐ CHEM 262 & 262L – Introduction to Organic Chemistry II
☐ PHYS 104 & 104L – General Physics I *Counts for BA only
☐ PHYS 105 & 105 Lab – General Physics II *Counts for BA only

If you wish to pursue a BS, you should also complete:
☐ BIOL 101 & 101L – General Biology
☐ MATH 233 – Calculus of Functions of Several Variables
☐ Two Calculus-Based Physics Courses – PHYS 116 & 117 equivalents OR PHYS 118 & 119 equivalents (Contact Admissions to determine equivalency) *Complete these in place of PHYS 104 and 105

In addition to the courses mentioned above, you will need to complete the following courses by the time you graduate from UNC. Keep in mind that many of these courses may have prerequisites, so course sequencing is important to consider.

To pursue either the BA or the BS complete:
☐ CHEM 241 & 241 Lab – Laboratory in Separations and Analytical Characterization of Organic and Biological Compounds
☐ CHEM 251 – Introduction to Inorganic Chemistry
☐ CHEM 550 L – Synthetic Chemistry Laboratory I
☐ CHEM 430 – Introduction to Biological Chemistry
☐ CHEM 481 – Physical Chemistry I
☐ One (1) advanced chemistry course

If you wish to pursue a BS, you should also complete:
☐ CHEM 441 & 441L – Modern Analytical Methods for Separation and Characterization
☐ CHEM 450 – Intermediate Inorganic Chemistry
☐ CHEM 481L – Physical Chemistry Laboratory
☐ CHEM 482 – Physical Chemistry II
☐ CHEM 482L – Physical Chemistry Laboratory II
☐ MATH 383 – First Course in Differential Equations
☐ Two additional advanced chemistry courses (one with a lab)
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Does it matter if I get a Bachelor of Science or a Bachelor of Arts?
For entry into most career tracks, what matters most are the courses taken, grades earned, and pertinent experiences (e.g., service learning and undergraduate research, or post-baccalaureate work), not necessarily the degree earned. It is an individual decision to select a BA or a BS; however, we strongly recommend that transfer students consider the time it will take to complete their degree prior to transferring to UNC. We also recommend that new transfer students take no more than two science and math courses during their first semester at UNC. As it is often challenging to fit all the requirements for a BS into the time allotted to transfer students, all students interested in pursuing a BS in Chemistry should contact Academic Advising as soon as they matriculate to discuss their options and schedule.

Why major in Chemistry at UNC?
Study the most interesting questions in the universe, and get involved in many cutting edge research opportunities!

“A UNC chemistry degree prepares students for a career in a wide variety of occupations including but not limited to research, medicine, business, sales, education, and law. At UNC students have the opportunity to learn from professors who are in the top tier of their scientific discipline both in the classroom and in the laboratory research setting. We love our chemistry majors and do everything we can to help them succeed in class and in life.” — Todd Austell, Professor and Undergraduate Advisor, Department of Chemistry

Important Links
If you are a prospective transfer student and have additional questions about majoring in chemistry at UNC, please refer to one of the links below or contact the UNC admissions office (admissions.unc.edu/contact-us/).

Chemistry Department Homepage: chem.unc.edu/
Undergraduate Bulletin: unc.edu/ugradbulletin/depts/chem.html
Resources for Student Success: studentsuccess.unc.edu
Transfer Resources: transfers.unc.edu
Summer School at UNC: summer.unc.edu
What Can I Do with This Major? careers.unc.edu/students/explore-majors-and-careers
Will my courses transfer? admissions.unc.edu/credit/credit/transfer-equivalencies/

You can also connect with the Chemistry Department on Facebook (UNC Chemistry), online at chem.unc.edu, or, after you decide to attend UNC, with the department’s undergraduate advisors via email at tlaustell@unc.edu for Todd Austell and tiani@email.unc.edu for Domenic Tiani.