CHEMISTRY, B.A.

The Chemistry Major (B.A.) provides sound education in chemistry but is less specialized and more flexible than the B.S. program. It offers solid preparation for those planning to enter medicine or dentistry, secondary school teaching, technical writing, sales, or various other vocations within the chemical industry. In fact, by electing some additional courses in chemistry beyond the minimum required, the student may prepare for graduate work under this program as well as under the B.S. While this program allows a more flexible arrangement of schedules, the student should work closely with a chemistry advisor to be certain that the proper sequence of chemistry and related area courses are taken with regard to the prerequisites.

Overall Requirements

- 120 credit hours, to include at least 36 credits at or above the 300 course level; note that licensure programs may require credits beyond the minimum listed.
- Only major requirement and related area requirement courses at or below the 300-level in which grades of C- or better are earned will be counted toward the major. Students must earn a C- or better in prerequisite major requirement and related area requirement courses before advancing to subsequent courses. Students must have an overall GPA of at least 2.0 in CHE courses at UNC Greensboro.

Degree Program Requirements

Code	Title	Credit Hours
University Requirements (https://catalog.uncg.edu/academic-regulations-policies/undergraduate-requirements/undergraduate-degrees-and-degree-requirements/)		
General Education Requirements (MAC) (https://catalog.uncg.edu/academic-regulations-policies/undergraduate-requirements/general-education-program/#generaleducationcorerequirementstext)		
College of Arts and Sciences Additional Requirements (CIC) (https://catalog.uncg.edu/arts-sciences/#additionalundergraduaterequirementstext)		

Major Requirements

Code	Title	Credit Hours
Core Courses		**35-36**
CHE 111 & CHE 112	General Chemistry I and General Chemistry I Laboratory	
CHE 114 & CHE 115	General Chemistry II and General Chemistry II Laboratory	
CHE 331 & CHE 333	Quantitative Analysis and Quantitative Analysis Laboratory	
CHE 342	Inorganic Chemistry I	
CHE 351	Organic Chemistry I	
CHE 352	Organic Chemistry II	
CHE 353	Organic Laboratory Techniques	
CHE 355	Intermediate Organic Chemistry Lab	
CHE 402	Chemistry Seminar	
CHE 406	Introductory Physical Chemistry	
or CHE 461	Physical Chemistry I	
CHE 401	Chemistry Seminar Introduction *	
Select two courses from the following:		
CHE 420	Chemical Principles of Biochemistry	
CHE 456	Biochemistry I	
CHE 442	Inorganic Chemistry II	
CHE 481	Synthetic Techniques	
CHE 431	Instrumental Analysis	
CHE 436	Computational Chemistry	
CHE 453	Advanced Organic Chemistry I	
Related Area Requirements		**16**
MAT 196	Calculus A	
MAT 296	Calculus B	
Select one of the following:		
PHY 211 & PHY 212	General Physics I and General Physics II	
PHY 291 & PHY 292	General Physics I with Calculus and General Physics II with Calculus	

* *This course is taken as an audit.*

Optional Concentration

The optional concentration as detailed following the major requirements may be added, but is not required.

- Chemistry Major with Comprehensive Science High School Teaching Licensure

Electives

Electives should be sufficient to complete the 120 credit hours required for the degree. Additional advanced courses in mathematics are advised. Additional chemistry courses above the 100 level may be taken.

Chemistry Major with Comprehensive Science High School Teaching Licensure Concentration Requirements

The Comprehensive Science High School Licensure (CHEM) program provides a strong background in chemistry as well as licensure for high school chemistry teaching. In addition, successful completion of this program qualifies candidates to teach other high school science subjects as well.

Code	Title	Credit Hours
Additional Requirements for Licensure *		**14**
BIO 111 & 111L	Principles of Biology I and Principles of Biology I Laboratory	
BIO 112 & 112L	Principles of Biology II and Principles of Biology II Laboratory	
GES 103	Introduction to Earth Science	
Select one or more of the following:		
GES 111	Physical Geology	
GES 205	Environmental Change: Its Nature and Impact	
GES 319	Weather and Climate	
GES 314	Physical Geography: Landscape Processes	

* *Additional requirements for teacher licensure, beyond the Chemistry Major requirements, include completion of the Secondary Licensure Requirements as listed under Teacher Licensure Requirements. In addition, students must take 14 credits in biology and earth science including the items listed.*

Teacher Licensure Requirements

Contact the School of Education Office of Student Services at 336-334-3410 for more information.

The courses below must be taken in a specified sequence, terminating in student teaching in the spring semester of the senior year. See below and the online Secondary Education Handbook for more information.

Code	Title	Credit Hours
Required		**28**
TED 435	Literacy in the Content Area	
ERM 401	Assessment I: Accountability in Our Nation's Schools	
ERM 402	Assessment II: Standardized Tests	
ERM 403	Assessment III: Classroom Assessment	
TED 444	Educational Psychology for the Secondary Grades	
TED 445	Human Diversity, Teaching, and Learning *	
TED 459	Teaching Practices and Curriculum in Science	
TED 465	Student Teaching: Secondary School	
TED 466	Student Teaching Seminar	
LIS 120	Introduction to Instructional Technology for Educational Settings	

* *This course requires 25 hours of internship in the schools.*
** *This course requires 50 hours of internship in the schools.*

Sequence

The courses should be taken in the sequence below.

Junior		
Fall		**Credit Hours**
ERM 401	Assessment I: Accountability in Our Nation's Schools	1
TED 401	Child and Adolescent Development and Learning	1
TED 445	Human Diversity, Teaching, and Learning	3
	Credit Hours	**5**
Spring		
ERM 402	Assessment II: Standardized Tests	1
SES 401	Understanding and Teaching Students with Disabilities in Inclusive Settings	1
TED 403	Teaching Multilingual Learners with Diverse Abilities	1
LIS 120	Introduction to Instructional Technology for Educational Settings	1
	Credit Hours	**4**
Senior		
Fall		
ERM 403	Assessment III: Classroom Assessment	1
TED 435	Literacy in the Content Area	3
TED 459	Teaching Practices and Curriculum in Science	3
	Credit Hours	**7**
Spring		
TED 465	Student Teaching: Secondary School	9
TED 466	Student Teaching Seminar	3
	Credit Hours	**12**
	Total Credit Hours	**28**

Disciplinary Honors in Chemistry and Biochemistry

Requirements

- A minimum of 12 credit hours as defined below.
- UNC Greensboro cumulative GPA of 3.30 or better or, for transfer students, cumulative GPA of 3.30 or better from all prior institutions.

Code	Title	Credit Hours
Required		**3**
HSS 490	Senior Honors Project	
6 credits of Honors course work in the major		**6**
3 credits of Honors course work in the major or another area		**3**

~~Recognition~~

~~Receive a Certificate of Disciplinary Honors in Chemistry and Biochemistry; have that accomplishment, along with the title of the Senior Honors Project, noted on the official transcript; and be recognized at a banquet held at the end of the spring semester.~~

~~Honors Advisor~~

~~Contact Liam Duffy at liam_duffy@uncg.edu for further information and guidance about Honors in Chemistry and Biochemistry. To apply:~~ https://honorscollege.uncg.edu/disciplinary-honors/disciplinary-honors-admissions (https://honorscollege.uncg.edu/disciplinary-honors/disciplinary-honors-admissions/)