

**Pre-Major Associate in Science Articulation Agreement:  
Chemistry and Chemistry Education (A1040B)**

*This template has been developed by university and community college faculty as a blueprint for guiding community colleges in developing programs for students who intend to major in Chemistry and Chemistry Education. Students who successfully complete this course of study and who meet the requirements for admission to the university may be eligible to apply for admission to the major with junior standing.*

*All community colleges will not offer all pre-major programs and course selections may vary. Check college catalogs for course and program offerings.*

***Students entering the Pre-Chemistry Associate in Science Degree Program must demonstrate competency in or complete the prerequisites required for MAT 271, Calculus I.***

**General Education Core (44 SHC)\*** Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

**English Composition (6 SHC)** *Two English composition courses are required.*  
English 111, Expository Writing, is required as the first composition course.  
The second composition course must be selected from the following:

ENG 112	Argument-Based Research
ENG 113	Literature-Based Research
ENG 114	Professional Research and Reporting

**Humanities/Fine Arts (9 SHC)** *Three courses from three discipline areas are required.*  
The following course is required:  
COM 231 Public Speaking (3 SHC)  
One course must be a literature course.  
One additional course from the following discipline areas is required: art, drama, dance, foreign languages, interdisciplinary humanities, music, philosophy, and religion.

**Social/Behavioral Sciences (9 SHC)** *Three courses from three discipline areas are required.*  
One course must be a history course.  
Two additional courses from the following discipline areas are required: anthropology, economics, geography, political science, psychology, and sociology.  
The following course is recommended:  
PSY 150 General Psychology (3 SHC)

**Natural Sciences/Mathematics (20 SHC)**  
***Natural Sciences (12 SHC):***  
The following courses are required:

CHM 151	General Chemistry I (4 SHC)
CHM 152	General Chemistry II (4 SHC)
PHY 251	General Physics I (4 SHC)

***Mathematics (8 SHC):***  
The following mathematics courses are required:

MAT 271	Calculus I (4 SHC)
MAT 272	Calculus II (4 SHC)

**Other Required Hours (20-21 SHC)\*** One semester hour of credit may be included in a sixty-five semester hour credit associate in science program. The transfer of the 65<sup>th</sup> hour is not guaranteed. A minimum of 20 SHC of college transfer courses in general education, pre-major or elective courses are required.

The following courses are required (12 SHC):

CHM 251	Organic Chemistry I (4 SHC)
CHM 252	Organic Chemistry II (4 SHC)
PHY 252	General Physics II (4 SHC)

Three (3) hours of approved college transfer courses from “CSC” or “CIS” are required.

Five (5) additional hours of approved college transfer courses are required to total 64 SHC of transferable courses.

The following course is recommended:

#MAT 273	Calculus III (4 SHC)
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*#Only students who place into MAT 272 (Calculus II) may choose MAT 273.*

**Total Semester Hours Credit (SHC) in Program: 64-65**

**\*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.**

**\*\* 3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for literature requirement.**

### ***Application to a University***

*Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate degree, students who meet the requirements outlined in this pre-major articulation agreement will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree as listed at [www.northcarolina.edu/content.php/aa/planning/traditional.htm](http://www.northcarolina.edu/content.php/aa/planning/traditional.htm). Students are encouraged to contact the senior institution to confirm degree offerings.*

### ***Admission to the Major***

*Grade point average requirements vary and admission is competitive across the several programs in Chemistry and Chemistry Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.*