Program of Study

Degree Requirements (120 hours)

1. Carolina Core (34-46 hours)
   a. CMW (6 hours): any approved CC-CMW course — must be passed with a grade of C or higher
   b. ARP (8 hours)
      i. MATH 141
      ii. MATH 142
   c. SCI (8 hours) — must be passed with a grade of C or higher
      i. PHYS 211
      ii. PHYS 211L
      iii. PHYS 212
      iv. PHYS 212L
   d. GFL (0-6 hours): Demonstration of proficiency in one foreign language equivalent to the minimal passing grade on the exit examination in the 122 course is required for all baccalaureate degrees. Students can demonstrate this proficiency by successfully completing Phase II of the Proficiency Test or by successfully completing the 122 course, including the exit exam administered as part of that course. It is strongly recommended that students continuing the study of a foreign language begin college-level study of that language in their first semester and continue in that language until their particular foreign language requirement is completed.
   e. GHS (3 hours): any approved CC-GHS course
   f. GSS (3 hours): any approved CC-GSS course
   g. AIU (3 hours): any approved CC-AIU course

   Carolina Core Stand Alone or Overlay Eligible Requirements:
   Up to two of these requirements may be met in overlay courses. At least one of these requirements must be satisfied by a course not applied elsewhere in general education. (3-9 Hours)

   h. CMS (3 hours): any approved overlay or stand-alone CC-CMS course
   i. INF (0-3 hours): any approved overlay or stand-alone CC-INF course
   j. VSR (0-3 hours): any approved overlay or stand-alone CC-VSR course

2. College Requirements (15-19 hours)
   a. Foreign language course (0-3 hours) — only if needed to meet 122-level proficiency
   b. Analytical Reasoning (6-7 hours)
      i. STAT 509 or STAT 515
      ii. CSCE 145 or CSCE 206
   c. History (3 hours): The College of Arts and Sciences requires one U.S. History and one non-U.S. History course, both of which must be chosen from the approved Carolina Core GHS courses. Whichever is not fulfilled through the Carolina Core GHS requirement must be fulfilled through this college requirement.
   d. Social Science (3 hours): choose any from the list of CC-GSS approved courses
   c. Fine Arts or Humanities (3 hours)
3. **Program Requirements (26-34 hours)**
   
   a. **Cognate or Minor** (12-18 hours):
      
      **Cognate**
      
      The cognate is intended to support the course work in the major. The cognate must consist of twelve (12) hours of courses at the advanced level, outside of but related to the major. The cognate may be taken in one or more departments or programs, depending on the interests of the student and the judgment of the advisor.

      Courses offered by departments and programs that are acceptable for cognate credit are outlined in the section titled [Courses Acceptable for Cognate Credit in Degree Programs in the College of Arts and Sciences](#). For cognate course offerings in other colleges, consult the appropriate sections of this bulletin. Some major programs have specific cognate requirements.

      It should be emphasized that the cognate is not a second set of elective courses to be chosen at random by the student. The cognate must be approved by the major advisor as being related to the major field of study. Students are urged to consult their major advisors for specific requirements in their major.

      Courses applied toward general education requirements cannot be counted toward the cognate.

      For Bachelor of Science degrees, grades of D are acceptable for completion of the cognate requirement, except where restricted by the major program.

   b. **Supporting Courses** (14 hours)
      
      i. MATH 241
      
      ii. Math course beyond MATH 241 (3 hours)
      
      iii. Choose one of the following options (8 hours):
            1. CHEM 111 and CHEM 111L and CHEM 112 and CHEM 112L
            2. CHEM 141 and CHEM 142 (CHEM 141, CHEM 142 are equivalent to CHEM 111, 112, and CHEM 321L)

   c. **Electives** (0-8 hours) *(to reach required hours to graduate)*: No courses of a remedial, developmental, skill-acquiring, or vocational nature may apply as credit toward degrees in the College of Arts and Sciences. The College of Arts and Sciences allows the use of the Pass-Fail option on elective courses. Further clarification on inapplicable courses can be obtained from the College of Arts and Sciences.

4. **Major Requirements (37 hours) — a minimum grade of C is required in all major courses**
   
   a. **Major Courses** (37 hours) Courses in chemistry numbered 300-level and above to include the following:
      
      i. CHEM 322
      
      ii. CHEM 322L
      
      iii. CHEM 333
      
      iv. CHEM 333L
      
      v. CHEM 334
      
      vi. CHEM 334L
      
      vii. CHEM 511
      
      viii. CHEM 541
      
      ix. CHEM 541L
      
      x. CHEM 542
xi. CHEM 542L
xii. CHEM 550 or CHEM 555
xiii. CHEM 621
xiv. CHEM 621L
xv. 3 credits of undergraduate research

Note: Students who transfer into the program after completion of CHEM 331L and 332L may meet the organic chemistry requirements by completing CHEM 334L.