



Program of Study

Degree Requirements (122 hours)

1. Carolina Core (33-45 hours)

- a. **CMW** (6 hours): any approved CC-CMW course –*must be passed with a grade of C or higher*
- b. **ARP** (8 hours): any approved CC-ARP course –*must be passed with a grade of C or higher*
 - i. MATH 141
 - ii. MATH 142
- c. **SCI** (7 hours) –*must be passed with a grade of C or higher*
 - i. CHEM 111
 - ii. CHEM 111L
 - iii. PHYS 211
- 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 (16-19 hours)

- a. **Foreign language course** (0-3 hours) –*only if needed to meet 122-level proficiency*
- b. **Analytical Reasoning** (7 hours)
 - i. MATH 241
 - ii. CSCE 145
- 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
- e. **Fine Arts or Humanities** (3 hours)

3. Program Requirements (21 hours)

- a. **Cognate or Minor** (0-18 hours) –*optional*

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.

Minor

In place of the cognate a student in the College of Arts and Sciences may choose a minor consisting of at least 18 credit hours of prescribed courses. (Some minors in the sciences require a minimum of 16 hours.) The subject area of the minor may be related to the major. Students pursuing interdisciplinary minors who wish to use courses in their major department for minor credit must petition the College Committee on Scholastic Standards and Petitions for permission to do so.

The minor is intended to develop a coherent basic preparation in a second area of study. It differs from the cognate inasmuch as the courses must be concentrated in one area and must follow a structured sequence. Interdisciplinary minors can be designed with the approval of the assistant dean for academic affairs and advising.

Courses applied toward general education requirements cannot be counted toward the minor. No course may satisfy both major and minor requirements. **All minor courses must be passed with a grade of C or higher.** At least half of the courses in the minor must be completed in residence at the University.

A list of minor programs of study can be found at [Programs A-Z](#).

b. **Supporting Courses (21 hours)** –*must be passed with a grade of C or higher*

- i. CHEM 112
- ii. CHEM 112L
- iii. PHYS 199
- iv. PHYS 212
- v. PHYS 306
- vi. MATH 242 *or* MATH 520
- vii. Six additional hours of Mathematics courses from the following:
 1. MATH 300
 2. MATH 344
 3. MATH 500-level and above (selected with advisor)

Note: No more than 3 hours can come from MATH 300 or MATH 344.

4. **Major Requirements (52-54 hours)** –*a minimum grade of C is required in all major courses*

a. **Engineering Physics (Mechanical Option) Concentration Major Courses (40-42 hours)**

- i. PHYS 307
- ii. PHYS 308 and PHYS 309 *or* PHYS 310
- iii. PHYS 311
- iv. PHYS 501
- v. PHYS 503
- vi. PHYS 504
- vii. PHYS 541
- viii. Physics Elective (6-8 hours) -choose two:
 1. PHYS 502
 2. PHYS 506
 3. PHYS 509
 4. PHYS 511
 5. PHYS 512
 6. PHYS 514

- 7. PHYS 521
- 8. PHYS 542
- ix. EMCH 200
- x. EMCH 260
- xi. EMCH 290
- b. Engineering Physics (Mechanical Option) Concentration Major Electives (at least 12 hours)
 - i. Choose 4 courses from EMCH 300 and above