

THE UNIVERSITY OF NORTH CAROLINA ASHEVILLE
FACULTY SENATE

Senate Document Number 4120S
Date of Senate Approval 04/30/20

Statement of Faculty Senate Action:

APC Document 37 (CHEM):

**Remove Remaining a Chemistry Major for
the B.S. and B.A. Chemistry degrees;
Update graduation requirements to include a grade
of C or better in foundational Chemistry
classes for the B.S. Chemistry degree**

Effective Date: Fall 2020

1. Delete: On pages 95-96, the entry for **Remaining a Chemistry Major:**

Remaining a Chemistry Major

Students who have declared a major in chemistry remain in good academic standing within the department if their GPA for courses required by the department remains at or above a 2.00 for the B.A. degree and 2.30 for the B.S. degree. If the GPA in courses required by the department falls below the aforementioned levels, the student will be placed on departmental warning and will have two semesters to raise the GPA to the required level. Should satisfactory improvement not occur within the allotted time, the department reserves the right to revoke the student's major in chemistry. If this occurs, students may redeclare once their GPA has risen above the requisite level.

2. Delete: On page 93, the requirements under **Bachelor of Science Degree:**

- I. Required courses for the major—42 hours, including: CHEM 111, 132, 145, 222, 223, 231, 232, 233, 323, 331, 380, 416, 417, 418; 4 hours of 312; and 9 hours of CHEM at the 400-level.
- II. Required courses outside the major—16 hours, including MATH 191, 192; PHYS 221 and either PHYS 222 or 231.
- III. Other departmental requirements—Major competency is demonstrated in CHEM 416. The course must be completed with a grade of C or higher to graduate.

Add: On page 93, in place of deleted entry for **Bachelor of Science Degree:**

- I. Required courses for the major—42 hours, including: CHEM 111, 132, 145, 222, 223, 231, 232, 233, 323, 331, 380, 416, 417, 418; 4 hours of 312; and 9 hours of CHEM at the 400-level.
- II. Required courses outside the major—16 hours, including MATH 191, 192; PHYS 221 and either PHYS 222 or 231.
- III. Other departmental requirements—Major competency is demonstrated in CHEM 416. The course must be completed with a grade of C or higher to graduate. A grade of C or higher in CHEM 145, 222, 223, 231, 232, 233, 323, and 331 and GPA of 2.30 in all chemistry courses required for the major is required to graduate.

Impact Statement: There will be no impact on the staffing and resources in the Department of Chemistry as we expect enrollment of the foundational courses required by the chemistry major to stay the same. The impact on students will be positive because the new requirement of C or better in

foundational coursework will give an earlier indication of the academic rigor for successfully completing the full requirements of the B.S. chemistry major with the intention to reduce the number of students not able to meet the B.S. major competency requirements in semester 6 and/or not able to meet the B.S. GPA requirement of 2.30 at graduation.

A requirement of C or better in foundation courses will give some students an early indication of long-term success, will help other students take advantage of being able to retake courses to increase their foundational content knowledge as they are progressing, and will help students who may need to choose alternative degree paths (such as the B.A. chemistry major or another area) to do so earlier in their academic career.

Rationale: The Remaining a Chemistry Major section is removed because it would not be necessary with the more-clear articulation of the 2.30 GPA graduation requirement in section III for the Bachelor of Science and because the 2.0 GPA graduation requirement for the Bachelor of Arts is the university minimum for graduation. The change for the B.S. major to require a C or better in all foundational courses beyond General Chemistry lecture (CHEM 132) and lab (CHEM 111) is centered on increasing student success. In the chemistry major curriculum, students take courses in the five foundational areas of chemistry: organic (CHEM 231, 232 and 222 lab), inorganic (CHEM 233), analytical (CHEM 223 and 145 lab), biochemistry (CHEM 323) and physical chemistry (CHEM 331). All upper-level chemistry coursework builds upon this foundational coursework and the content competency requirement for the B.S. chemistry degree is based solely on these five foundational areas of lecture and laboratory coursework. Therefore, for a student to be successful to the end in earning their chemistry degree (by passing the competency exam and coursework with a GPA of at least 2.30), they need to meet a minimum standard of learning in each of the foundational areas (hence C or better), rather than an average across all foundational areas through GPA. Currently, some students progress to advanced courses in the chemistry major without meeting a minimum standard of learning in the foundational coursework and then struggle to meet the GPA and competency requirements to complete the B.S. degree. Earlier and specific markers of degree expectations will help students to be more successful in earning their B.S. chemistry degree.

There is significant precedence in having minimum course grade requirements for other majors and programs at UNC Asheville and for chemistry majors at other UNC system and COPLAC peer institutions. Examples include: a requirement of C- or better in LANG 120, C or better for students in the teacher licensure program, and pre-requisites of C or better for some courses in Engineering, ACCT, ECON, RELS and HWP at UNC Asheville. In addition, UNC Asheville transfer policy requires C or better for any course from another institution. The B.S. and B.A. chemistry degrees at UNC Chapel Hill require a C or better in 18 hours of the chemistry major core curriculum. University of Mary Washington requires C or better in multiple foundational chemistry major courses; St. Mary's of Maryland requires a C- or better in ALL chemistry major courses; and the College of New Jersey requires C or better in foundational chemistry major courses and C- or better in all chemistry major courses.

In this document, the Chemistry Department would like to articulate the minimum content requirements of the chemistry major as degree requirements of C or better for specific courses for the B.S. degree, rather than as a course-grade pre-requisite for upper-level courses as is more commonplace in the UNC Asheville catalog. A degree requirement makes the expectation clear to students, faculty advisors, and faculty instructors, and prevents needing to grant overrides for students to progress in future coursework before meeting the minimum standards of learning in previous courses. In addition, the B.A. chemistry degree, other science majors, and chemistry minors rely on some of the same foundational coursework

but may not have the same rigor expectations as the ACS certified B.S. degree. Therefore, it would be unreasonable to expect another major or minor to have to earn a grade of C or better in CHEM 231 before taking CHEM 232, for example.