EXECUTIVE COMMITTEE
COLLEGE OF NATURAL AND AGRICULTURAL SCIENCES
REPORT TO THE RIVERSIDE DIVISION
MAY 24, 2022

To be adopted:

Changes to Chemistry Major

PRESENT:	**PROPOSED:**
Transfer Students Students transferring to the Chemistry major must complete courses comparable to the following one-year sequences before they transfer:	**No Change** No Change
1. General chemistry, equivalent to CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC, each course completed with a grade of "C" or better	1. General chemistry, equivalent to CHEM 001A or CHEM 002A, CHEM 001B or CHEM 002B, CHEM 001C or CHEM 002C, CHEM 01LA or CHEM 02LA, CHEM 01LB or CHEM 02LB, CHEM 01LC or CHEM 02LC, each course completed with a grade of "C" or better
2. First-year calculus, equivalent to MATH 009A, MATH 009B, MATH 009C, each course completed with a grade of "C" or better	2. No Change
At least one of the following one-year sequences:	**No Change**
1. General physics (calculus-based) equivalent to PHYS 040A, PHYS 040B, PHYS 040C, each course completed with a grade of "C" or better (strongly recommended)	1. No Change
2. Second-year calculus, equivalent to MATH 010A, MATH 010B, MATH 046, each course completed with a grade of "C" or better	2. No Change
3. Organic chemistry (one-year lower-division), each course completed with a grade of "B" or better	3. No Change
Students must have a minimum grade point average of 2.70 in transferable college courses. UCR has articulation agreements with most of the California community colleges. These agreements list specific community college courses that have been designated as comparable to UCR courses (see the statewide articulation web site at	No Change

assist.org). Transfer students will usually find it advantageous to complete most or all sequences before starting at UCR. All prospective transfers should try to complete the sequences they begin rather than divide a sequence between two campuses.

Change in Major Criteria	**No Change**
General requirement: 1. Students must be in good academic standing with 2.0 cumulative GPA and 2.0 upper- division chemistry major GPA. 2. Grades for all chemistry core and required lower-division math and physics courses must be "C-" or better. 3. A grade of "C-" or better in each of the courses used to satisfy the 20-unit CNAS Natural Science and Mathematics breadth requirement. 4. AP credit is not accepted for lower division chemistry courses.	No Change 1. No Change 2. No Change 3. No Change 4. No Change
Specific requirement: If student has completed less than 45 units (first year students), then • Completion of CHEM 001A or CHEM 01HA, CHEM 01LA or CHEM 01HLA, MATH 009A	**No Change** No Change • Completion of CHEM 001A or CHEM 002A or CHEM 01HA, CHEM 01LA or CHEM 02LA or CHEM 01HLA, MATH 009A
If student has completed between 45 and 90 units (second year students), then • Completion of MATH 009A, MATH 009B, MATH 009C.	No Change • No Change
• Completion of CHEM 001A or CHEM 01HA, CHEM 001B or CHEM 01HB, CHEM 001C or CHEM 01HC, CHEM 01LA or CHEM 01HLA, CHEM 01LB or CHEM 01HLB, CHEM 01LC or CHEM 01HLC and PHYS 040A or PHYS 002A and PHYS 02LA (PHYS 002A & PHYS 02LA can be used for B.A. program only)	• Completion of CHEM 001A or CHEM 002A or CHEM 01HA, CHEM 001B or CHEM 002B or CHEM 01HB, CHEM 001C or CHEM 002C or CHEM 01HC, CHEM 01LA or CHEM 02LA or CHEM 01HLA, CHEM 01LB or CHEM 02LB or CHEM 01HLB, CHEM 01LC or CHEM 02LC or CHEM 01HLC and PHYS 040A or PHYS 002A and PHYS 02LA (PHYS 002A & PHYS 02LA can be used for B.A. program only)

If student has completed between 90 and 135 units (third year students), then	No Change
• Completion of all lower-division math requirements (MATH 009A, MATH 009B, MATH 009C, MATH 010A for B.A. program; and MATH 009A, MATH 009B, MATH 009C, MATH 010A, and two out of the following: MATH 010B, MATH 031, MATH 046 for B.S. program).	• No Change
• Completion of the following chemistry courses (CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC, CHEM 005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC).	• Completion of the following chemistry courses (CHEM 001A or CHEM 002A, CHEM 001B or CHEM 002B, CHEM 001C or CHEM 002C, CHEM 01LA or CHEM 02LA, CHEM 01LB or CHEM 02LB, CHEM 01LC or CHEM 02LC, CHEM 005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC).
• Completion of all lower-division physics requirements (PHYS 040A, PHYS 040B, PHYS 040C or PHYS 002A, PHYS 002B, PHYS 002C and PHYS 02LA, PHYS 02LB, PHYS 02LC) (Phys 002A, PHYS 002B, PHYS 002C and PHYS 02LA, PHYS 02LB, PHYS 02LC can be used for B.A. program only)	• No Change
If student has completed more than 135 units (fourth year students), then	No Change
• Completion of all lower-division math requirements (MATH 009A, MATH 009B, MATH 009C, MATH 010A for B.A. program; and MATH 009A, MATH 009B, MATH 009C, MATH 010A, and two out of the following: MATH 010B, MATH 031, MATH 046 for B.S. program).	• No Change
• Completion of all lower-division chemistry courses (CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC, CHEM 005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and	• Completion of all lower-division chemistry courses (CHEM 001A or CHEM 002A, CHEM 001B or CHEM 002B, CHEM 001C or CHEM002C, CHEM 01LA or CHEM 02LA, CHEM 01LB or CHEM 02LB, CHEM 01LC or CHEM 02LC, CHEM 005, CHEM 008A and

CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC).	CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC).
• Completion of all lower-division physics requirements (PHYS 040A, PHYS 040B, PHYS 040C or PHYS 002A, PHYS 002B, PHYS 002C and PHYS 02LA, PHYS 02LB, PHYS 02LC) (PHYS 002A, PHYS 002B, PHYS 002C and PHYS 02LA, PHYS 02LB, PHYS 02LC can be used for B.A. program only)	• No Change
• Completion of upper-division chemistry courses (CHEM 125W and CHEM 150A)	• No Change
University Requirements See Undergraduate Studies Section.	**No Change**
College Requirements See College of Natural and Agricultural Sciences, Colleges and Programs section.	**No Change**
Some of the following requirements for the major may also fulfill some of the college's breadth requirements. Consult with a professional academic advisor at the CNAS Advising Center, 1223 Pierce Hall.	
Major Requirements The Major requirements for the B.A. and the B.S. degree in Chemistry are as follows:	**No Change** No Change
Bachelor of Arts	**No Change**
1. **Lower-division requirements (63 units)** a) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 1HLB, CHEM 01HC and CHEM 1HLC), CHEM 005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)	1. **No Change** a) CHEM 001A or CHEM 002A, CHEM 001B or CHEM 002B, CHEM 001C or CHEM 002C, CHEM 01LA or CHEM 02LA, CHEM 01LB or CHEM 02LB, CHEM 01LC or CHEM 02LC (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 1HLB, CHEM 01HC and CHEM 1HLC), CHEM 005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)
b) MATH 009A, MATH 009B, MATH 009C, MATH 010A	b) No Change

c) PHYS 040A, PHYS 040B, PHYS 040C (or PHYS 002A, PHYS 002B, PHYS 002C, PHYS 02LA, PHYS 02LB, PHYS 02LC)	c) No Change
2. **Upper-division requirements (36 units)** A minimum grade of "C-" for any upper-division course used to fulfill the requirements for the B.A. degree.	2. **No Change** No Change
a) CHEM 110A, CHEM 110B, CHEM 113, CHEM 125W, CHEM 150A, CHEM 191, and either CHEM 111 or CHEM 140 or CHEM 166	a) CHEM 110A, CHEM 110B, CHEM 113, CHEM 125W, CHEM 150A, CHEM 191, and either CHEM 111 or CHEM 140 <u>or CHEM 155</u> or CHEM 166
b) Ten (10) additional upper-division units	b) No Change
Chemistry with Education Focus Option Students must consult with their Chemistry advisor before electing this option.	**No Change** No Change
1. Lower Division Requirements (66 units) a) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC (or CHEM 01HA, CHEM 01HB, CHEM 01HC and CHEM 1HLA, CHEM 1HLB, CHEM 1HLC), CHEM 005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)	**1. Lower Division Requirements (66 units)** a) CHEM 001A <u>or CHEM 002A</u>, CHEM 001B <u>or CHEM 002B</u>, CHEM 001C <u>or CHEM 002C</u>, CHEM 01LA <u>or CHEM 02LA</u>, CHEM 01LB <u>or CHEM 02LB</u>, CHEM 01LC <u>or CHEM 02LC</u> (or CHEM 01HA, CHEM 01HB, CHEM 01HC and CHEM 1HLA, CHEM 1HLB, CHEM 1HLC), CHEM 005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)
b) MATH 009A or MATH 007A, MATH 009B or MATH 007B, MATH 009C, MATH 010A	b) No Change
c) PHYS 040A, PHYS 040B, PHYS 040C (or PHYS 002A and PHYS 02LA, PHYS 002B and PHYS 02LB, PHYS 002C and PHYS 02LC)	c) No Change
d) EDUC 003	d) No Change
2. Upper Division Requirements (41 or 42 units) A minimum grade of "C- "for any upper-division course used to fulfill the	**2. Upper Division Requirements (41 or 42 units)** No Change

requirements for Chemistry with Education Focus option.

a) CHEM 110A, CHEM 110B, CHEM 113, CHEM 125W, CHEM 150A, CHEM 191, CHEM 111 or CHEM 140 or CHEM 155 or CHEM 166, CHEM 143 or BCH 100 or BCH 110A

a) No Change

b) EDUC 105, EDUC 162, and one course from EDUC 132 or EDUC 147.

b) No Change

Bachelor of Science

No Change

1. **Lower-division requirements (71-72 units)**

1. **No Change**

a) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 1HLB, CHEM 01HC and CHEM 1HLC), CHEM 005, CHEM 008A and CHEM 08LA or, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)

a) CHEM 001A <u>or CHEM 002A</u>, CHEM 001B <u>or CHEM 002B</u>, CHEM 001C <u>or CHEM 002C</u>, CHEM 01LA <u>or CHEM 02LA</u>, CHEM 01LB <u>or CHEM 02LB</u>, CHEM 01LC <u>or CHEM 02LC</u> (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 1HLB, CHEM 01HC and CHEM 1HLC), CHEM 005, CHEM 008A and CHEM 08LA or, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)

b) MATH 009A, MATH 009B, MATH 009C, MATH 010A, and two out of the following: MATH 010B, MATH 031, MATH 046

b) No Change

c) PHYS 040A, PHYS 040B, PHYS 040C

c) No Change

2. **Upper-division requirements (41-43 units)**

2. **No Change**

A minimum grade of "C-" for any upper-division course used to fulfill the requirements for the B.S. degree.

No Change

a) CHEM 110A, CHEM 110B, CHEM 111, CHEM 113, CHEM 125W, CHEM 150A, CHEM 191

a) No Change

b) Two laboratory courses from CHEM 114 or CHEM 140, CHEM 166, BCH 162

b) Two laboratory courses from CHEM 114, CHEM 140<u>, CHEM 155</u>, CHEM 166, BCH 162

c) One course from BCH 100, BCH 110A, CHEM 143

c) No Change

d) One 4-unit course from CHEM 135/ ENSC 135/ENTX 135, CHEM 136/ENSC 136/ENTX 136/SWSC 136, CHEM 150B, CHEM 197, CHEM 199. CHEM 197 and CHEM 199 must be taken for a grade and a written report submitted.

d) No Change

Chemical Physics Option
Students must consult with their Chemistry advisor before electing this option.

No Change
No Change

1. **Lower-division requirements (74-75 units)**
   a) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 01HLB, CHEM 01HC and CHEM 1HLC), CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)

1. **No Change**
   a) CHEM 001A or CHEM 002A, CHEM 001B or CHEM 002B, CHEM 001C or CHEM 002C, CHEM 01LA or CHEM 02LA, CHEM 01LB or CHEM 02LB, CHEM 01LC or CHEM 02LC (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 01HLB, CHEM 01HC and CHEM 1HLC), CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)

   b) MATH 009A, MATH 009B, MATH 009C, MATH 010A, MATH 010B, MATH 046
   c) PHYS 041A, PHYS 041B, PHYS 41C or PHYS 040A, PHYS 040B, PHYS 040C, and PHYS 041C

   b) No Change
   c) No Change

2. **Upper-division requirements (45 units)** A minimum grade of "C-" for any upper division course used to fulfill the requirements for the Chemical Physics option.
   a) CHEM 110A, CHEM 110B, CHEM 111, CHEM 113, ~~CHEM 114,~~ CHEM 150A, CHEM 191
   b) ~~Sixteen (16)~~ units of upper-division course work in Mathematics or Physics (110 or above excluding 190 series)
   c) CHEM 197 or CHEM 199, with an emphasis on physical chemistry research (4 units). 4 additional units of CHEM 197 or 199 can be used to replace ~~the CHEM 114~~ requirement, subject to advisor approval.

2. **No Change**
   No Change

   a) CHEM 110A, CHEM 110B, CHEM 111, CHEM 113, CHEM 150A, CHEM 191
   b) Twenty (20) units of upper-division course work in Mathematics or Physics (110 or above excluding 190 series)
   c) CHEM 197 or CHEM 199, with an emphasis on physical chemistry research (4 units), or CHEM 114.
   4 additional units of CHEM 197 or 199 can be used to replace 4 units of the 20 units of MATH/PHYS requirement, subject to advisor approval.

Environmental Chemistry Option
Students must consult with their Chemistry advisor before electing this option.

No Change
No Change

1. **Lower-division requirements (71 units)**

1. **No Change**

a) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 1HLB, CHEM 01HC and CHEM 1HLC), CHEM 005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)	a) CHEM 001A or CHEM 002A, CHEM 001B or CHEM 002B, CHEM 001C or CHEM 002C, CHEM 01LA or CHEM 02LA, CHEM 01LB or CHEM 02LB, CHEM 01LC or CHEM 02LC (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 1HLB, CHEM 01HC and CHEM 1HLC), CHEM 005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)
b) MATH 009A, MATH 009B, MATH 009C, MATH 010A, MATH 010B, MATH 046	b) No Change
c) PHYS 040A, PHYS 040B, PHYS 040C	c) No Change
d) BIOL 005A, BIOL 05LA or BIOL 020, BIOL 005B, BIOL 005C	d) No Change
2. **Upper-division requirements (49-50 units)** A minimum grade of "C-" for any upper-division course used to fulfill the requirements for the Environmental Chemistry option.	**2. No Change** No Change
a) CHEM 110A, CHEM 110B, CHEM 111, CHEM 125W, CHEM 135/ENSC 135/ENTX 135, CHEM 136/ENSC 136/ENTX 136/SWSC 136, CHEM 114 or CHEM 140, CHEM 150A, CHEM 191	a) No Change
b) One course from ENSC 104/SWSC 104 or GEO 137	b) No Change
c) One course from BCH 100, BCH 110A or CHEM 143	c) No Change
d) Two additional courses from CHEM 113, CHEM 150B, CHEM 166, CHEM 197, CHEM 199, ENSC 100, ENSC 101, ENSC 102, ENSC 140/SWSC 140, ENSC 163, ENTX 101, GEO 132, GEO 157 (4 units total from CHEM 197 and/or CHEM 199)	d) Two additional courses from CHEM 113, CHEM 150B, CHEM 166, CHEM 155, CHEM 197, CHEM 199, ENSC 100, ENSC 101, ENSC 102, ENSC 140/SWSC 140, ENSC 163, ENTX 101, GEO 132, GEO 157 (4 units total from CHEM 197 and/or CHEM 199)
Chemistry with Education Focus Option Students must consult with their Chemistry advisor before electing this option	**No Change** No Change
1. Lower-division Requirements (74-75 units) A) CHEM 001A, CHEM 001B, CHEM 001C, CHEM01LA, CHEM 01LB, CHEM 01LC (or CHEM 01HA, CHEM 01HB, CHEM 01HC and CHEM 1HLA, CHEM 1HLB, CHEM 1HLC), CHEM	1. Lower-division Requirements (74-75 units) a) CHEM 001A or CHEM 002A, CHEM 001B or CHEM 002B, CHEM 001C or CHEM 002C, CHEM 01LA or CHEM 02LA, CHEM 01LB or CHEM 02LB, CHEM 01LC or CHEM 02LC (or CHEM

005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)	01HA, CHEM 01HB, CHEM 01HC and CHEM 1HLA, CHEM 1HLB, CHEM 1HLC), CHEM 005, CHEM 008A and CHEM 08LA, CHEM 008B and CHEM 08LB, CHEM 008C and CHEM 08LC (or CHEM 08HA and CHEM 08HLA, CHEM 08HB and CHEM 08HLB, CHEM 08HC and CHEM 08HLC)
B) MATH 009A, MATH 009B, MATH 009C, MATH 010A, and two of the following: MATH 010B, MATH 031, MATH 046	b) No Change
C) PHYS 040A, PHYS 040B, PHYS 040C	c) No Change
D) EDUC 003	d) No Change
2. Upper Division Requirements (53 – 55 units) A minimum grade of "C- "for any upper-division course used to fulfill the requirements for the Chemistry with Education Focus option.	2. Upper Division Requirements (53 – 55 units) No Change
A) CHEM 110A, CHEM 110B, CHEM 111, CHEM 113, CHEM 150A, CHEM 125W, CHEM 191	a) No Change
B) EDUC 105, EDUC 162 and one course from EDUC 132 or EDUC 147	b) No Change
C) Two laboratory courses from CHEM 114 or CHEM 140, CHEM 166 or CHEM 155, BCH 162	c) No Change .
D) One course from BCH 100, BCH 110A, CHEM 143	d) No Change
E) One course from CHEM 135, CHEM 136, CHEM 150B, CHEM 197 or CHEM 199 (4 units total allowed)	e) No Change
Undergraduate Research is strongly encouraged for students with the requisite ability. Students wishing to participate in this activity should consult Chemistry faculty, their Chemistry advisor, or check: **ugr.ucr.edu**.	**No Change**
Sample Program Student programs are planned on an individual basis with their advisors, and there is considerable flexibility in the sequence in which courses required for the major are taken. For example, PHYS 040A, PHYS 040B, PHYS 040C can be started equally well during either the freshman or sophomore year. The sample program is typical for a well-prepared entering freshman who seeks the B.S. degree.	**No Change**

Freshman Year	**Fall**	**Winter**	**Spring**
CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 1HLB, CHEM 01HC and CHEM 1HLC)	4,1	4,1	4,1
PHYS 040A, PHYS 040B		5	5
MATH 009A, MATH 009B, MATH 009C	4	4	4
ENGL 001A, ENGL 001B, ENGL 001C	4	4	4
Elective (optional)	4		
Total Units	17	18	18

Freshman Year	**Fall**	**Winter**	**Spring**
CHEM 001A or CHEM002A, CHEM 001B or CHEM 002B, CHEM 001C or CHEM 002C, CHEM 01LA or CHEM 02LA, CHEM 01LB or CHEM 02LB, CHEM 01LC or CHEM 02LC (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 1HLB, CHEM 01HC and CHEM 1HLC)	4,1	4,1	4,1
PHYS 040A, PHYS 040B		5	5
MATH 009A, MATH 009B, MATH 009C	4	4	4
ENGL 001A, ENGL 001B, ENGL 001C	4	4	4
Elective (optional)	4		
Total Units	17	18	18

Sophomore Year	**Fall**	**Winter**	**Spring**

No Change

CHEM 008A, CHEM 008B, CHEM 008C CHEM 008LA, CHEM 008LB, CHEM 008LC	4	4	4	
PHYS 040C	5			
MATH 010A, MATH 010B, MATH031, MATH 046	4	4	4	
CHEM 005		5		
Elective (optional)		4	8	
Total Units	13	17	16	

Junior Year	**Fall**	**Winter**	**Spring**	No Change
CHEM 110A, CHEM 110B, CHEM 113	4	4	4	
Biological Science w/ Lab			4	
CHEM 150A, CHEM 150B		4	4	
CHEM 125W	5			
CHEM 143		3		
CHEM 191			1	
Electives	4	4	8	
Total Units	13	15	17	

Senior Year	Fall	Winter	Spring
CHEM 111, CHEM 140		4	4
~~CHEM 166~~			4
Electives	12	8	4
Total Units	12	12	12

Senior Year	Fall	Winter	Spring
CHEM 111, CHEM 140		4	4
CHEM 155			4
Electives	12	8	4
Total Units	12	12	12

Justification:

With the approval of the new Major General Chemistry courses, CHEM 002A, CHEM 002B, CHEM 002C, CHEM 02LA, CHEM 02LB & CHEM 02LC, the Chemistry section within the catalog needed to be updated to include these new courses as they are now a required course for chemistry major students. This proposal is also meant to make a second slight change to the "Sample Program" portion of the Chemistry section. More specifically, changing CHEM 166 to CHEM 155 for accuracy. This change will help facilitate enrollment into CHEM 155 and minimize confusion since CHEM 166 is not offered in Spring anymore. Adding CHEM 155 will also help fill in the missing Inorganic Laboratory course in the Chemistry B.S. & B.A. as well the other chemistry options.
Currently, there is only one (1) inorganic course being taught. So, to fully satisfy the ACSguidelines for the undergraduate chemistry degrees, CHEM 155 is being added. Lastly, the removal of CHEM 114 is due to the course not being taught anymore.

Approvals:

Approved by the faculty of the Department of Chemistry:	February 23, 2022
Approved by the Executive Committee of the College of CNAS:	March 1, 2022
Reviewed by Committee on Undergraduate Admissions:	April 15, 2022
Approved by the Committee on Educational Policy:	April 26, 2022