

## Two Curricular Proposals from Chemistry

### Background Information: Current Chemistry Degree Tracks

- B.A. Chemistry, General (46–47)
- B.A. Chemistry, General with Teaching Credential (93–94)
- B.A. Chemistry, Chemical Engineering 3-2/3-3 (57)
- B.A. Chemistry, Biochemistry (64–66)
  
- B.S. Chemistry, Professional (70–71)
- B.S. Chemistry, General (55–56)
- B.S. Chemistry, Biochemistry (67–68)
- B.S. Chemistry, Chemical Physics (66–67)

### I. Omit the Education Track

#### a. Specific Proposal

We propose to remove our B.A. Chemistry, General Track with Teaching Credential from the catalog.

#### b. Rationale

The Education Department recently created a minor in education for students who are interested in pursuing a career in teaching secondary education. That makes our “General Track with Teaching Credential” redundant. Students who are interested in a career teaching chemistry will be advised to complete the B.A. Chemistry, General Track and the Minor in Education.

#### c. Advantages

The main advantages of this change are the advantages of the minor in Education. Most notably, students will have an advisor in the Education Department. Faculty in that area will know about the students’ interest early on, and students will receive advice from someone in that program.

#### d. Disadvantages

The catalog and websites that list majors (e.g., the college application landing point) will no longer explicitly list a major for aspiring chemistry teachers. We will still have a paragraph in the catalog providing advice to students who are interested in teaching.

## II. **Replace Advanced Methods with Inorganic in the B.S. General Track**

### a. Specific Proposal

For the B.S. Chemistry, General track, drop the requirement for students to take Advanced Methods in Chemistry (CHM-122) and add a requirement for students to take Advanced Inorganic (CHM-104). This may also include changing the schedule of offering these courses so that CHM-104 goes every year and CHM-122 goes on alternate years. We also plan to rename the course “Inorganic Chemistry,” dropping “Advanced.” The content of the courses will remain largely the same.

### b. Rationale

The American Chemical Society identifies five main areas of chemistry: organic, inorganic, analytical, physical, and biochemistry. Our B.S. General track currently requires students to take only three of the five areas of chemistry (organic, analytical, and physical). Requiring inorganic would bring the number of foundational areas covered in the track to four of the five, with only biochemistry left as an elective.

### c. Advantages

This will give our students a broader base in the discipline. Also, inorganic has been one of our lower enrolled courses, therefore, in addition to the educational benefits for our students, this change will move some enrollment from less important courses to more important courses, helping our program to be more sustainable.

### d. Disadvantages

Because CHM-122 is only a three-unit course and CHM-104 is a four-unit course, this change results in a one-unit increase to our lowest-unit B.S. Chemistry track: from 55–56 to 56–57. The B.A. Chemistry, General Track is still available for students who want a degree in chemistry but also want more time to pursue other interests. That degree track is possible with as few as 46 units.