Transfer Model Curriculum Curriculum Template for Chemistry

Original date of review and posting: November 27, 2013. Modified May 5, 2014 to reflect CSU GE Breadth for STEM as a GE option and Math 900S as an option to fill the Calculus requirement. Revised November, 2019 to reflect an increase in units from 34 to 36 due to an increase in the Organic Chemistry course Descriptor 160S

CCC Major or Area of Emphasis: CSU Major: Chemistry

or Majors: Chemistry

Total units: 36 (all units are semester units)

Degree Type (indicate one): AS-T

COURSES

Required Core: 36 units

Title (units)	**C-ID Designation**	**C-ID Units (or sample units)**
General Chemistry for Science Majors Sequence A (10)	CHEM 120S	Required lower division preparation for major./CSU GE Areas B1 & B3.
Organic Chemistry for Science Majors Sequence A (10)		Required for major.
Calculus-Based Physics for Scientists **and** Engineers: A and B (8)	PHYS 205 PHYS 210	Required lower division preparation for major.
AND Single Variable Calculus Sequence (8)	MATH 900S	Required lower division preparation for major./CSU GE Area B4.
OR Single Variable Calculus I – Early Transcendentals (4)	MATH 210	**2 semesters or 3 quarters of calculus, minimum 8 semester units.**
and Single Variable Calculus II – Early Transcendentals (4)	MATH 220	
OR Single Variable Calculus I – Late Transcendentals (4)	MATH 211	
and Single Variable Calculus II – Late Transcendentals (4)	MATH 221	

***Discipline Units 36**

*NOTE: This TMC presumes completion of IGETC for STEM, allowing for completion of 6 units of non-STEM GE work after transfer. The high number of Discipline units for this TMC prohibits the CSU GE Breadth pathway. Students seeking this degree should be advised that an additional course in CSU GE Area A1 will be required of them to be admitted to CSU as a transfer student.

CHEMISTRY REVIEW SUMMARY

The Five year review of the Chemistry TMC brought up discussion of the unit count allotted to the Organic Chemistry series. While there are some institutions that offer 8-unit series, most require a 10 unit series of their Chemistry Majors.

Community colleges must create programs that allow students to transfer to the institution of their choosing and must not narrow their options to only those programs with the fewest requirements.

Faculty consensus is that program requirements dictate a minimum of 5 units per semester or 10 units for the Organic Chemistry series. This is supported by the fact that the majority of institutions both at the Community College and four-year level, offer 10 unit Organic Chemistry series for their Chemistry majors. The previous TMC 4-unit Organic Chemistry course would therefore represent a reduction in the course content for most Community colleges, placing students at a disadvantage relative to their non-transfer peers. It is the faculty position that reduction in Organic Chemistry units would not be in the students' interest.

For these reasons, the TMC in Chemistry has increased the organic chemistry unit requirement from 8 to 10 units.

It is important to note that the unit limitations imposed by this degree may only be accomplished through completion of an IGETC pathway, since the additional course required of the CSU Breadth pathway makes it impossible for colleges to meet the 60 unit total.

Colleges are advised to clarify for students completing this ADT in Chemistry that an additional course will be required of them in CSU GE Area A1 order to be admitted to CSU as a transfer student.