CHEMISTRY EDUCATION LICENSURE PROGRAM

**ST OLAF COLLEGE EDUCATION DEPARTMENT**

**Chemistry Teacher Candidates Must:**

1. Meet all Minnesota Board of Teaching Pedagogy and Content Standards.
2. Pass the NES Basic Skills in Reading, Writing, and Mathematics prior to student teaching (this requirement could be met by reaching ACT+Writing/SAT threshold scores).
3. Pass the MTLE competency exams in their Content Area(s) and in Pedagogy before licensure.
4. Have a major in their content area.

**PROFESSIONAL EDUCATION REQUIREMENTS Course Credit**

\_\_\_\_ Education 231: Drugs and Alcohol 0.00

\_\_\_\_ Education 290: Educational Psychology (***HBS***) 1.00

\_\_\_\_ Education 291: Standards and Technology 0.00

\_\_\_\_ Education 330: Principles of Education (***ORC***) 1.00

\_\_\_\_ Education 372: Counseling and Communication in the Schools 0.50

\_\_\_\_ Education 375: Differentiated Instruction for Exceptional Learners 0.50

\_\_\_\_ Education 381: Senior Seminar 0.50

\_\_\_\_ Education 382: Human Relations Component 0.00

\_\_\_\_ Education 385: Human Issues in Education 0.50

\_\_\_\_ Education 389: Student Teaching 3.00

**One** Interim (***MCD***) 1.00

\_\_\_\_ Education 378: Multicultural Education in Hawaii (Offered in even years)

\_\_\_\_ Education 379: Urban Education Practicum and Seminar

**CHEMISTRY (9-12) CONTENT AREA LICENSURE REQUIREMENTS**

\_\_\_\_ Education 364: Teaching of Science 5-12\* (Spring) (***WRI***) 1.00

\_\_\_\_ Education 374: Reading in the Content Area\* 0.50

**One** of the following\*: 1.00

\_\_\_\_ Chemistry 125: Structural Chemistry and Equilibrium

\_\_\_\_ Chemistry 121: General Chemistry *and* Chemistry 123: Atomic and Molecular Structure

\_\_\_\_ CHBI 125: Chemical Concepts with Biological Applications

**One** of the following\*: 1.00

\_\_\_\_ Chemistry 126: Energies and Rates of Chemical Reactions

\_\_\_\_ CHBI 126: Thermodynamics and Kinetics with Biological Relevance

\_\_\_\_ Chemistry 247\*: Organic Chemistry I/CHEM 253 Synthesis Laboratory\* 1.25

\_\_\_\_ Chemistry 248\*: Organic Chemistry II/CHEM 254 Synthesis Laboratory\* 1.25

\_\_\_\_ Chemistry 255: Analytical Chemistry/CHEM 256: Analytical Laboratory 1.25

\_\_\_\_ Chemistry 371: Physical Chemistry/CHEM 357: Physical Laboratory (***WRI***) 1.25

\_\_\_\_ Chemistry 379\*: Biochemistry I 1.00

\_\_\_\_ Research Component

**ADDITIONAL COURSES FOR THE CHEMISTRY MAJOR**

\_\_\_\_ Two semesters of Physics (124/125) 2.00

\_\_\_\_ Math through Calculus II (***AQR***) 0-2.00