

## **IMPORTANT PREREQUISITE CHANGE FOR CHEM 400!**

Beginning Fall 2009, Chemistry 400 at Sacramento City College has more stringent prerequisite requirements than in past years. The changes in the prerequisites are designed to improve the preparation of students taking general chemistry, so that their probability of success in this course is improved. Data collected over the past four years clearly indicates that students completing CHEM 300 within one semester of taking CHEM 400 have a nearly 90% success rate in CHEM 400, with greater than 75% obtaining either a B or an A in CHEM 400. Equivalent Preparation can also be effectively predicted by performance on chemistry and math diagnostic exams.

**Effective for fall, 2009, the new prerequisites are:**

**Completion of CHEM 300 with a grade of “C” or better,  
Or placement through the assessment process (the ACS California Chemistry Diagnostic Exam, completed within one year prior to enrollment in CHEM 400).**

**AND**

**Completion of MATH 120 or MATH 124 with a grade of “C” or better,  
or placement in a level of math higher than Math 120 through the assessment process. Assessment must be completed within one year prior to enrollment to CHEM 400.**

Beginning February 1, 2010, the ACS Chemistry Exam will be administered by the SCC Assessment Center on a walk-in basis during regular testing hours. The math assessment can also be taken at the Assessment Center during testing hours on a walk-in basis. See <http://www.scc.losrios.edu/assessment.xml> for the most up to date testing schedule. All students taking either assessment exam must bring a photo ID and their SCC student ID number.

The Chemistry Diagnostic Exam may be taken no more than once a semester. Retesting requires a referral from a SCC Counselor and a minimum 30 day waiting period between semesters. Retesting for math requires a referral from a SCC Counselor after the second try and minimum waiting period of 4 months.

All Students intending to enroll in CHEM 400 are strongly advised to take the chemistry and math assessment exams administered through the Assessment Center, regardless of prior coursework. These exams provide a better idea of a student’s readiness for college level general chemistry, since they measure the actual chemistry and math capabilities of the student as they enroll in the course.

Testing results will be available after 1pm of the next business day following the exam.

**If you have any further questions about Chemistry testing hours,  
please call: (916) 558-2540.**

**For additional chemistry related questions,  
please contact Dr. Bruce Zenner at (916) 558-2466**

## Topics covered on the Chemistry Test

- Basic Math/Algebra Skills
- Scientific Notation Calculations
- Unit Conversion Calculations
- Density Calculations
- Percent Mass Calculations
- Reading and Balancing Chemical Formulas and Reactions
- Types of Reactions (Combustion, Neutralization, etc.)
- Stoichiometry (Mole/Mole or Gram/Mole Conversions)
- Molarity Calculations
- Ideal Gas Law Calculations
- Atomic/Molecular Structure and Properties:
- Mass Number, Protons, Neutrons, Electrons
- Lewis Electron Dot Structures
- Polar Bonds
- Chemistry Theories and Concepts:
- Phase Diagrams
- States of Matter
- Periodicity and Group Trends of Elements (Metals, Semimetals, and Nonmetals; Radii Size, etc.)
- Equilibrium Expression
- LeChatelier's Principle
- Potential Energy Diagram
- Heating Curve
- Kinetic Molecular Theory
- pH Concepts