

**Course Syllabus and Information**

Description:	<p>This class is an introduction to chemistry with emphasis on a semi-empirical approach to the scientific method, the microscopic properties of matter, chemical reactions and chemical equations. Examples of chemistry from history, technology, biology and environmental science will be introduced. This is primarily a preparatory class for CHEM 101 and CHEM 102. A grade of C or better (C- is unacceptable) in this class serves as a prerequisite for CHEM 101. YOU CAN ADVANCE DIRECTLY TO CHEM 101 (without taking CHEM 100) if you score 40/60 or better in the Chemistry Placement Test (CPT). See <a href="http://www.csun.edu/testing/chemistry-placement-test-cpt">http://www.csun.edu/testing/chemistry-placement-test-cpt</a> for more information. Credit cannot be earned in both CHEM 100 and CHEM 103. Although successful completion of this class and its associated laboratory satisfies the Subject Explorations, Natural Sciences General Education requirement, you SHOULD NOT take CHEM 100 to satisfy a GE requirement only – TAKE CHEM 110 INSTEAD.</p>
Outcomes:	<p>Students successfully completing this class will be able to:</p> <ul style="list-style-type: none"><li>• Describe the features and application of the scientific method</li><li>• Perform basic calculations involving measurements</li><li>• Develop strategies for problem solving for various types of chemical calculations</li><li>• Understand the composition of atoms, molecules and compounds at a fundamental level</li><li>• Write chemical formulas and chemical reactions</li><li>• Describe and quantify the composition of chemical solutions</li></ul>
Instructor:	Jussi Eloranta, Office: EH2025, Email: <a href="mailto:jmeloranta@gmail.com">jmeloranta@gmail.com</a> , Phone: 818 6772677.
Prerequisites:	A qualifying score on the ELM test or ELM exemption. A qualifying score is 50 or above, 34 and above with successful completion of MATH 093 or below 34 with successful completion of MATH 092 and MATH 093. See <a href="http://www.csun.edu/testing/tests/elm.htm">www.csun.edu/testing/tests/elm.htm</a> for more information.
SI Class:	There is a 1-unit, credit/no credit Supplemental Instruction (SI) class, UNIV 060C, that accompanies CHEM 100. The class offers more worked examples and individualized attention to help you succeed in CHEM 100. Historically, students enrolling in this class have scored 5-10% higher than the CHEM 100 class average.
Lectures:	Section 05 (Class 16501) – Mondays and Wednesdays, 4:30 PM - 5:45 PM, Eucalyptus Hall 2228.
Office Hours:	Fridays 14:00 – 15:00 in EH2025. Office hours are times when instructors have an “open door” policy and are available to answer any questions you have about the material.

- Attendance:** Students are expected to attend *every* class. Attendance means you should arrive on time, be willing to participate in class discussions and be prepared. As a minimum, you should read through the appropriate textbook and/or lecture material *before* class. Disruptive students will be asked to leave. Please turn off cell phones. You may not audio or video record the class in any way without the instructor's permission. Instructors may circulate attendance sheets.
- Accommodation:** If you have a disability and need accommodations, please register with the Disability Resources and Educational Services (DRES) office or the National Center on Deafness (NCOD). The DRES office is located in Bayramian Hall, room 110 and can be reached at (818) 677-2684. NCOD is located on Bertrand Street in Jeanne Chisholm Hall and can be reached at (818) 677-2054. If you would like to discuss your need for accommodations with me, please set up an appointment.
- Required texts:** David Miller, *Principles of Chemistry: A Custom Text for CHEM 100*, 1<sup>st</sup> edition, 2011 (required). This text is available online to read/print/download. Purchase an access card (\$22.25) from the bookstore, fill it in and give it to your instructor before the end of week 3. ANY STUDENTS WHO HAVE NOT GIVEN AN ACCESS CARD TO THEIR INSTRUCTOR BY THE END OF WEEK 3 WILL BE DISENROLLED FROM MOODLE AND WILL NOT BE ABLE TO ACCESS QUIZZES. Keep a copy of your purchase receipt in case you need to retake the class. The receipt is valid for one calendar year.
- D.J. Dahm, E.A. Nelson, *Calculations in Chemistry: An Introduction*, 1<sup>st</sup> edition, 2011, W.W. Norton & Co. (recommended). ISBN 978-0-393-91286-9 (\$48.25 new/\$36.25 used). Available as a rental. Also available directly from the publisher at wwnorton.com as an e-book.
- Calculators:** You should have access to a basic scientific calculator (required), for example a TI-30X IIS. Programmable or graphing calculators or any device with communications capability such as a cell phone, tablet or laptop, cannot be used during quizzes or exams.
- WWW:** Access to the web is recommended. Additional class resources may be available through the university 'Moodle' system accessible from any computer on or off campus. You can access Moodle using the 'myNorthridge portal' login from the university homepage (www.csun.edu). Your login (CSUN short username of the form 'abc12345' or 'ab123456') and password (CSUN e-mail password) will be required.
- IF YOU HAVE NOT ADDED THIS CLASS yet – if you are on the waitlist – you can still access the CHEM 100 Moodle site using the guest access code announced by the instructor. Access for guests is limited to the first three weeks of the semester.
- Pop Quizzes:** Brief quizzes ('pop' quizzes) will be given at the start of some lectures. These quizzes focus on material presented in the previous lecture. Quizzes cannot be repeated or 'made up' in the case of absence so on-time attendance is important. An example quiz may be made available for downloading from Moodle.

Quizzes:	Multiple choice practice problems will be assigned periodically and must be completed using Moodle. Study the assigned material <i>before</i> you start your quiz. <b>ONCE STARTED, ONLINE QUIZZES MUST BE COMPLETED WITHIN A FIXED TIME AND IN A LIMITED NUMBER OF ATTEMPTS.</b> These quizzes are designed to help you with the conceptual and numerical aspects of this class and so form an integral part of the coursework. It is important that you attempt these problems, as they will greatly increase your chances of a superior score in the class.
Exams:	<p>There will be 2 one-hour multiple-choice examinations focused on specific parts of the material and one cumulative final examination. Example exams and exam keys may be made available for download from Moodle.</p> <p>You will score 0 for any missed examination unless you contact the instructor with a <u>legitimate, documented reason for an unforeseen and unavoidable absence</u>. Acceptable reasons for excused absences include injury or illness (with a doctor's note), military duty (with signed orders), jury duty (with jury notice), or traffic accident (with police report). Unacceptable reasons for excused absences include transportation delays, vehicle breakdowns, oversleeping, vacation plans, or work commitments. Documentation must be presented to the instructor at the next class you are able to attend.</p> <p><b>DO NOT MAKE VACATION/TRAVEL PLANS THAT CONFLICT WITH YOUR FINAL EXAM!</b> It is your responsibility to check your examination schedule: you will not be allowed to take a "make-up" final examination. <b>YOU WILL BE ALLOWED TO TAKE AN EXAMINATION ONLY ONCE</b> and cannot appeal afterwards to retake it because you felt your performance was impaired for some undisclosed reason. Instead notify the instructor <b>BEFORE</b> starting an examination.</p>
Dishonesty:	Students should read Appendix E-2 through E-4 in the current course catalog on academic dishonesty. <b>UNLESS OTHERWISE STATED, EVERYTHING YOU TURN IN FOR COURSE CREDIT MUST BE YOUR OWN WORK.</b> <b>CHEATING DURING EXAMINATIONS</b> has become a serious issue at CSUN and instructors will take measures to reduce its frequency, including audio/video recording, electronic monitoring, cell phone surrender and additional proctors. In particular, you will be asked to turn off and put away any cell phone in your possession during an examination, quiz or test. <b>ANYONE OBSERVED WITH A CELL PHONE DURING AN EXAMINATION</b> will, as a minimum, score zero for that examination, regardless of circumstances. The consequences for academic dishonesty are extremely serious and may result in an F grade in the class and notification to the Dean of Students regardless of any grade/score earned to that point. Students have been expelled from the university in some instances.
Tutors:	Paid and volunteer tutors are available to help you succeed in this class. More information is available from the chemistry department office (Eucalyptus Hall 2102).
Grading	Your overall grade will be calculated as follows:

Assignment	Points
Pop quizzes	50
Moodle quizzes	50
Examination 1	100
Examination 2	100
Final examination	250
TOTAL POINTS	550

There is no extra credit that can be earned in this class so it is important to give this class your full and sustained effort at all times. Historically, ~15-20% of the class has scored F grades and 40-50% of the class has scored below the C grade minimum required to advance to CHEM 101.

Letter Grades: The guaranteed letter grades are assigned as follows:

Percentage	Grade	Percentage	Grade	Percentage	Grade
>84 %	A	68-72 %	B-	54-57 %	D+
80-84 %	A-	64-68%	C+	51-54 %	D
76-80 %	B+	60-64 %	C	48-51 %	D-
72-76 %	B	57-60 %	C-	<48 %	F

Percentage/letter grades may be adjusted *slightly* depending upon the overall ability of the class. The percentage required to achieve the grades above will never increase.

### Tentative CHEM 100 Schedule

Week	Lecture Topic	Reading
1	Introduction Reading, Writing and Doing Science	Introduction Chapter 1
2	Reading, Writing and Doing Science Quantitative Science <i>Labor Day: No classes 09/03/16 - 09/05/16</i>	Chapter 1 Chapter 2
3	Quantitative Science Properties of Matter: Opposites Attract	Chapter 2 Chapter 3
4	Properties of Matter: Opposites Attract	Chapter 3
5	Properties of Matter: Opposites Attract	Chapter 3
6	Chemical and Physical Changes	Chapter 4
7	<i>Examination 1 (Chapters 1 - 3)*</i> Chemical and Physical Changes	Chapter 4
8	How Chemists Measure Atoms and Molecules	Chapter 5
9	How Chemists Measure Atoms and Molecules	Chapter 5
10	How Chemists Measure Atoms and Molecules Wet Chemistry: The Science of Substances in Solution	Chapter 5 Chapter 6
11	Wet Chemistry: The Science of Substances in Solution <i>Veterans' Day: No classes 11/11/16</i>	Chapter 6
12	Wet Chemistry: The Science of Substances in Solution <i>Examination 2 (Chapters 4 - 6)*</i>	Chapter 6
13	Electronic Structure of Atoms <i>Thanksgiving: No classes 11/24/16 - 11/27/16</i>	Chapter 7
14	Electronic Structure of Atoms	Chapter 7
15	Electronic Structure of Atoms	Chapter 7
16	<i>Finals Week (12/12/16 - 12/18/16)</i>	All Material

\*All dates, including examination dates, are subject to change.

Saturday classes are August 27; September 10, 17, 24; October 1, 8, 15, 22, 29; November 5, 12, 19; December 3, 10.