Syllabus for Chemistry 9 - Everyday Chemistry

Winter 2016 - Dr. Kline

Meeting Times
Lecture: TuTh 1:30-6:40 pm in Sci 153
Labs: MW 1:30-6:40 pm in Sci 301

Office Hours
By appointment. OK to email with questions; if it becomes unwieldy I can set up a threaded discussion in eCompanion.

Dr. Kline Contact Information
• Office: Sci 272
• E-mail: kline_peggy@gapps.smc.edu; kline_peggy@smc.edu
• Phone: 310-434-4745
• Web Site: homepage.smc.edu/kline_peggy/

Grading

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Points</th>
<th>Grade Standards (based on total points):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests (3)</td>
<td>300</td>
<td>A ≥ 576 points (90%)</td>
</tr>
<tr>
<td>Quizzes (16/18)</td>
<td>80</td>
<td>B ≥ 512 points (80%)</td>
</tr>
<tr>
<td>Homework</td>
<td>10</td>
<td>C ≥ 416 points (65%)</td>
</tr>
<tr>
<td>Lab Reports (10/11)</td>
<td>100</td>
<td>D ≥ 320 points (50%)</td>
</tr>
<tr>
<td>Lab Citizenship</td>
<td>10</td>
<td>F &lt; 320 points</td>
</tr>
<tr>
<td>Final Exam</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>620</td>
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No tests will be dropped; however, you may use your percent score on the final to replace a missed test if you have a legitimate, verified reason for missing said test.

Course Materials
Books and Supplies - all items are required unless otherwise noted
• Chemistry in Context, 7th ed., A Project of the American Chemical Society. The package sold in the SMC Bookstore includes an access code for Chemistry Connect Plus.
• Lab Experiments (Procedures) - available online: https://www.smc.edu/AcademicPrograms/PhysicalSciences/Pages/Chem-9-Experiments.aspx
• Lab Goggles (ANSI Z87.1)
• Locker Card
• Nitrile or Neoprene Gloves
• Lab Coat

Internet Content
• Chemistry Connect for our section- http://connect.mheducation.com/class/p-kline
Course Information

- Course material will be posted on or linked from the class web site. The instructor will send out communications to students using their official SMC email addresses so make sure that you check that email. You are responsible for knowing about information sent to your official SMC address.

- Contacting the instructor. The best way to contact this instructor is by email. Include the course name as the subject in any email to help keep it from getting trapped in the spam filter. I will answer course-related questions by email unless it becomes cumbersome; if that happens, I'll set up a threaded discussion.

- Successful completion of this course will require full participation in all class activities. Punctuality is critical as well—plan to arrive on time each and every class period. You will miss important material, annoy your fellow students and anger the instructor when you disrupt the class by entering late. Students are responsible for knowing what happens in class, including schedule changes, material not in the book, information about what's going to be on the next test and so on. It is a good idea to have the names and contact information for a few students whom you can contact if you miss class.

- Office hours. I usually don’t schedule these during winter session. If there is enough demand, I can set some up. Otherwise, they are by appointment or you can catch me during lab.

- Electronic devices. Please adjust cell phones, laptops, tablets, etc. so they do not make noise and/or and disrupt class members; the instructor reserves the right to confiscate such devices that do make noise and/or to evict students who are not using them appropriately during class time.

- No eating, gum chewing, or drinking is permitted in classrooms or labs; no food or drink is permitted unless it’s sealed so that it absolutely cannot spill. Water is an exception to this rule but not in lab.

- Tutoring. The Science Learning Resource Center (Sci 245, http://www.smc.edu/sciencelrc/) provides free tutoring for SMC students and other resources; see Saundra Willis (434-4630) to set up a tutoring appointment.

- Religious Holiday Absences. SMC Academic Regulation 5530 states: “It is the college practice that students may be required to make-up missed work from absences due to the observance of a religious holiday, but they cannot be penalized for such absences. This practice applies to any work affecting a student’s grade.” My policy is to avoid scheduling tests and quizzes on religious holidays that commonly affect students in my classes and, whenever possible, to schedule labs that can easily be rescheduled or done on a student's own time on religious holidays that affect large numbers of students. Students must let the instructor know by email within the first week of class of any planned absence due to a religious holiday. I try to offer students opportunities to make up labs they have to miss and expect students to make a reasonable effort to make up said labs. I do lecture on religious holidays and students who need to miss class are expected to get notes from other students.

- SMC accommodates students with disabilities. If you qualify for any special accommodations due to a disability, you need to officially process your request through the Disabled Students Programs and Services (DSPS) office. If you believe you have a learning disability that has not yet been documented, please see me and make an appointment at the DSPS office for assistance. The DSPS office is located in the Admissions/ Student Services Complex, Room 101, and the phone numbers are (310) 434-4265 and (310) 434-4273 (TDD). Students requiring permissible accommodations should contact the instructor by email no later than the end of the second week or classes or as soon as s/he becomes aware of the disability. No retroactive accommodations will be provided. The student is solely responsible for securing any provisions to which they may be entitled. Scheduling of accommodated exams must be made through DSPS.

- Topics for test and quiz questions will be taken from information presented in lecture and assigned problems. Quizzes on lab days may include material that students should know based on reading over the lab Procedure and Report form. Quizzes on non-lab days may include material based on the previous class day’s experiment(s).

- There will be no makeup tests or quizzes. If you miss a quiz it will be dropped (up to two quizzes). If you miss a test for a legitimate, verifiable reason, your percent score on the final will be used in place of that test score.

- “Graphing” calculators are permitted during tests for which calculators are permitted until the first occurrence of one being used improperly; from that point on, they will not be permitted for any student in any class. No cell phones, dictionaries, or translators are allowed during quizzes or tests.

- Homework. Suggested end-of-chapter problems from the textbook are will be written on the board in class when a chapter is started. It is generally a good idea to do the in-chapter problems as you read through the chapter. Written-out homework for a chapter is due by the end of the class period following the one where we
finish that chapter. Each chapter's assignment is worth one point. You will get that point if you make a good
effort. It you make a not-so-great effort, you will get half a point. If you make little or no effort you won’t get
credit. Ten points maximum will be awarded for homework; this corresponds to completing ten of the thirteen
chapters’ homework. There is a strong correlation between working the problems in a serious and dedicated
manner (pencil, paper, and lots of time) and course grade.

- **Online homework** - none, though the website is set up if you want to use the eBook or use the problems,
etc. there for practice.

- **The Academic Honesty Policy of Santa Monica College** will be strictly enforced. Acts of academic
dishonesty including, but not limited to, plagiarism, providing test/quiz answers to another student, and
copying from another student can result in a failing grade for the assignment or the course. Plagiarism
consists of presenting the words of another person as your own and includes “recycling” written work from
other students and the Internet. Both the provider and the recipient of the information will be penalized. In
addition, lying, manipulative or disruptive behavior will not be tolerated. More information on SMC policies is
available on the website for The Office of Student Judicial Affairs. Students need to be familiar with the SMC
Code of Academic Conduct.

- **Re-grading.** Tests and quizzes may be submitted for re-grading (or re-adding) within three school days of
their initial return to students. Please note that the instructor reserves the right to re-grade the entire test or
quiz. Answers that look as if they could have been changed after they were graded will not be considered for
re-grading.

- **Safety, Personal Protective Equipment (PPE) and Emergency Information.** Chemical splash goggles, lab
coats, closed shoes, and/or gloves must be worn by all students as noted for each experiment on the web
page that links to the experimental procedures ([https://www.smc.edu/AcademicPrograms/PhysicalSciences/
Pages/Chem-9-Experiments.aspx](https://www.smc.edu/AcademicPrograms/PhysicalSciences/Pages/Chem-9-Experiments.aspx)). Goggles and lab coats must be worn by all students until each and every
student is finished working with chemical reagents. An extremely limited supply of goggles and lab coats is
available in the lab for students to borrow. If you do not have a pair of appropriate goggles to wear for lab and
none are available in the lab, you will have two options—go buy some or don’t work in lab that day. Students
must supply nitrile or neoprene gloves for labs that require them (noted on the web page that links to
experimental procedures). Gloves must be removed and placed in the glove waste container when
contaminated or any time you leave the lab. A link to the SMC Safety Rules, PPE Information, and Emergency
Information is on the course web site. All students must sign a statement indicating that they are familiar with
the above Safety, PPE, and Emergency information before being allowed to work in the lab.

- **Lab neatness.** Students are responsible for keeping the lab neat. Students will be assigned one clean-up day
during the semester. There are ten points available for lab citizenship: deductions from the ten points will
occur for transgressions such as bottles left off lids, messy balance areas, not doing your assigned cleanup,
not wearing appropriate PPE, etc. The entire lab class may get points deducted for certain items.

- **Missed labs.** There will be no make-up labs, unless you arrange to do the lab during another lab time when
that section is doing the experiment. If you miss one lab, it will be the one dropped. If you miss more than
one lab, you will forfeit the points. Students who must miss their regularly-scheduled lab time due to a day of
religious observance may not be penalized; however, they must make a reasonable attempt to attend another
session and/or complete the lab report.

- Students who miss more than two labs will not receive a passing grade in the course except in the case of
exceptional circumstances.

- **Lab Reports** consist of filling in the Report Sheet for the experiment and will either be due at the end of the
lab period or by the beginning of the next class meeting.

- **Dates and Deadlines.** See the SMC Dates and Deadlines web page for enrollment and payment deadlines
and Corsair Connect for individual course withdrawal deadlines. The instructor reserves the right to drop any
student who misses any class meetings during the first week. The instructor will probably drop students who
miss a test without notification or appear to vanish; however, clerical errors do occur. If you want to be sure
you are dropped, do it yourself. Aside from the circumstances under which you may be dropped by the
instructor, it is nevertheless your responsibility as a student to withdraw from class if you do not intend to
complete it. Students must not expect faculty to initiate withdrawal procedures for them. If you wish to drop
this class, you may do so through Corsair Connect. Students may process a drop for themselves through
75% of the class, which is through the 12th week in a regular semester. Data regarding the withdrawal
parameters for each class are provided within each student’s individual Corsair Connect account.

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**Study Advice**
Chemistry is not a spectator sport—reading the book and watching the instructor work problems will not be sufficient. The only way to learn to work problems is by working them yourself (without looking at the solutions). Read the appropriate chapter sections and work the problems as we cover them in lecture. Do not wait until the last minute to work the problems. It is often helpful at least to skim the chapter (read the headlines) before we cover it in lecture. If you have difficulty with a problem, try rereading the appropriate section(s) or your lecture notes and/or the book, looking at worked-out problems of the same type, etc. If you get totally frustrated with a problem, don’t get hung up on it—go on to something else for a while. **Study strategies** that students have found useful in the past include study groups, flashcards, working questions from old tests and quizzes, reworking assigned problems and examples, and reviewing their tests before the final exam.

Courses offered during the short winter session will move quickly, often at an alarming rate. Be prepared!

**Official Course Information**

**Catalogue Description:** This course serves to fulfill the general education requirements for a laboratory science course. Students who successfully complete this course will understand basic chemical principles and how these principles relate to the world around them. They will also learn various lab techniques, including the safe handling of chemicals and the proper use of laboratory equipment. **Course Note:** This course does not fulfill the prerequisite for Chemistry 11. Students enrolling in this course should have math skills equivalent to those entering Math 31.

**Course Objectives:** Upon completion of this course, the student will be able to: explain the “scientific method” and apply it to current scientific issues from everyday life; employ significant figures in measurements and in calculations involving scenarios from everyday life; use the metric system and SI units when solving simple everyday life word problems involving unit conversions; describe the periodic trends of elements using the Periodic Table; compare and contrast the behavior of gases, liquids, and solids and use these to explain everyday phenomena; convert formulas and names, using the Stock and Classical systems, for common acids, bases, salts, and binary covalent compounds; write and balance chemical equations and classify chemical reactions found in everyday life; draw Lewis structures for simple covalent compound from everyday life; describe the properties of acid and base compounds, including pH, of common household products; perform basic and limiting reagent stoichiometric calculations involving gases and solutions from everyday life; apply knowledge of basic chemistry to identify common household products, industrial polymers, and poisons; make reliable observations in lab and record these observations systematically; identify and properly use common laboratory equipment and glassware; demonstrate correct safety protocols and ability to follow lab procedures.

**Student Learning Outcomes** *As assessed by: questions on exams and/or observation of laboratory performance and/or evaluation of laboratory data.*

1. When given a current event scenario about global warming, students will be able to analyze and discuss the data and potential solutions, using acid-base calculations and appropriate chemical formulas.
2. Students will be able to write an analysis about some of the current drugs and poisons readily available in today’s marketplace.