

CHEM102: CHEMISTRY IN EVERYDAY LIFE

Spring 2013 Syllabus

Meets W 4:45-7:25, CON 242



Images available at <http://blog.sciencescore.com/science-articles-for-kids/> and wsxnagc.org.uk

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Text: J. Suchocki, “Conceptual Chemistry: Understanding Our World Of Atoms and Molecules.” 4th Edition, Prentice Hall, 2011. ISBN: 0321639138 / 9780321639134

Course requirements and grading system:

Your final grade for the course will be based on the following requirements:

Exams (3 one-hour and 1 final)	40 %
Group work (~ every other week)	10 %
Writing assignment (1-2)	10 %
Homework and Quizzes	30 %
Class participation & Attendance *	10%

*** Attendance policy:** *Attendance is mandatory! Anyone who misses three or more lecture meetings will automatically get a grade of F in this course!* Attendance will be taken twice every meeting (before and after the break). There are 13 lecture meetings altogether, each meeting being equivalent to one week’s worth of materials during day class. **Tardiness:** Students who come in late distract the class, so try your best to come to class on-time. Anyone who comes in after 4:55 pm and/or 10 minutes after the break will be marked tardy. *Three tardiness equal one absence.* In addition, **no quiz** will be given to you if you come in late.

Exams: There will be **3 lecture exams**, to be given during class time (see course outline and schedule) worth 100 points each (total of 300 points), and **one final exam** worth 150 points. Each lecture exam will be approximately one hour in length and will be followed by lecture discussion. My exams are usually a combination of multiple choices, fill in the blanks or matching type, short answers and discussion. The discussion part is usually limited to 5 to 7 sentences in length. On rare occasions I may add true/false questions.

Missed exam: You have **until the next meeting** following the scheduled exam to makeup for a missed exam *provided that* I have judged your absence as excused based on the **documentation** that I received from you that explains your absence (e.g. a doctor's note if you were sick or an advisor's note if you attended a school-supported activity, such as a conference).

Homework & Quizzes: Homework and quizzes will be given almost every meeting. Homework questions and quizzes will be based mostly on current lecture topics. It will be helpful to you if you keep up with lectures and readings. While most of the homework answers can be obtained from the text, some may require you to do an internet search on a lecture-related topic or a special chemistry topic of my choice. Although group discussion of homework questions is acceptable, **copying from one another is totally unacceptable** as it is a form of **cheating**. I reserve the right to assign a grade of zero for identical homework. Late homework will incur a penalty proportional to the number of meetings they are late. Once homework has been graded and returned, late ones won't be accepted anymore and will be assigned a grade of zero.

Quizzes will be either multiple choices, fill in the blanks, true/false, short discussion, or a combination of two of these. A missed quiz results to a grade of zero for that quiz. *There is no makeup for a missed quiz, but the lowest quiz grade will be dropped.*

While discussion of ideas related to an assignment is acceptable, copying one's work or copying each other either word for word or by rephrasing someone's statement will be considered a form of cheating, thus will be treated as an academic misconduct. I expect you to write your own ideas and responses to assigned problems as an individual, not as a group. If you derived the ideas/responses from the text or another source, cite these references. In summary, **homework and papers that I have deemed identical or close to being identical will receive a grade of zero!** Read the section below about academic integrity for more details.

Group work: Group work will be assigned approximately every two weeks, which will be based on either current or future lecture topic, or a special chemistry topic that will not be covered in class. **It will be necessary for you to bring your textbook every meeting.** A set of questionnaires will be given for each group to answer within a time period. If necessary, extra reading resources will be provided before or during the group work.

Writing assignment: There will be a number of writing assignments on a selected topic during this course. They could be in-class writing or take-home and will vary in length from 1 to 3 pages depending on the topic that I selected. A set of guidelines will be provided for each writing assignment. Please follow them carefully to avoid **points from being taken off for nonadherence to these requirements**. Both spelling and grammar will be graded as well.

At this point, I also expect you to know how to use quotations if a part of your written work is quoted from the text or another source, and to list that text or any other sources used, including those taken from internet sites, under "References," the last section of your written work. If you don't remember

how to cite sources, go to the BSC Library Homepage at <http://www.bridgew.edu/Library/> and click on the link "**How Do I Cite Sources**". You will notice two bibliographic styles: APA and MLA. I prefer that you follow the APA style.

Academic Integrity:

From the 2012-2013 Student Handbook:

At Bridgewater State University, academic honesty is expected of all students; plagiarism and cheating are not condoned and are subject to academic penalty, which may result in a failure for the course in which the violation took place. A violation may result in a reduced grade, suspension, or dismissal from the university.

Academic misconduct includes, but is not limited to, plagiarism, cheating, and dishonest practices.

For more information please read the university's policy on academic integrity at:

<http://www.bridgew.edu/Handbook/PoliciesProcedures/academicintegrity.cfm>

Classroom Conduct: According the BSU's Classroom Conduct Policy, "All students and faculty at Bridgewater State University are entitled to a positive and constructive teaching and learning environment, Bridgewater State University students are prohibited from engaging in behavior or activity that causes the disruption of teaching, learning, research or other academic activities necessary for the fulfillment of the university mission. If disruptive behavior occurs, whether in the classroom or another academic environment, ***faculty members have the right to remove students from the classroom.***

Disruptive behavior will not be tolerated and is considered a violation of the Student Code of Conduct. Examples of potentially disruptive behavior may include, but are not limited to, using inappropriate language directed at an individual or group, unsolicited talking in class, sleeping in class, using or activating cell phones, arriving at or leaving the classroom while class is in session, and/or failing to comply with the legitimate request of a university faculty member.

(<http://www.bridgew.edu/Handbook/GradSchool/Classroomconduct.cfm>)

Teaching objectives

My primary teaching goals for CHEM102 are:

- (1) To provide basic information about the chemical nature and properties of *materials*,
- (2) To help students assess the risks and benefits of using certain chemicals or everyday chemical products, and
- (3) To help them become well-informed and more responsible citizens of this technologically complex world with their knowledge of chemistry.

As in my upper level courses, I will assign homework and give quizzes frequently to help students learn the materials more effectively. There will be writing assignments on recent chemistry news or topic, not only to help students build up on their written communication and critical thinking skills, but to keep them up to date on chemistry news that affect their daily life.

CHEM 102 COURSE OUTLINE AND TENTATIVE SCHEDULE Spring 2013

Week #	Topic
1-3	<i>Introduction to Chemistry</i> (Chapters 1 & 2) <i>The Atom, Subatomic Particles and Atomic Models</i> (Chapter 3, Sections 4, 5 and 6 only)
4-6	Chapter 5, Sections 1, 4 and 8 only Exam 1 (100 points) – February 27, Weeks 1&4 topics <i>Chemical Bonding and Reactions</i> (Chapters 6 and 9, Section 1 only) <i>Acids, Bases and Salts</i> (Chapter 10)
7-9	<i>Organic Compounds</i> (Chapter 12), <i>Plastics</i> (Chapter 18, part) and <i>Energy Resources</i> (Chapter 19, part); <i>Chemistry of Drugs</i> (Chapter 14 on CD) Exam 2 (100 points) – March 27, Chapters 6, 10 and 12
10-12	<i>Chemicals of Life</i> (Chapter 13 on CD in the Paperback Edition) <i>Air and Water Resources</i> (Chapters 16 & 17 {parts} on CD) Exam 3 (100 points) – April 24, Chapters 14, 13 and 16
12-15	<i>Air and Water Resources</i> (Chapters 16 & 17 {parts} on CD) <i>Nuclear Chemistry</i> (Chapter 4 and part of Chapter 19 Sections 1-3 only, on CD) Final Exam, May 8, Acids/Bases through Nuclear Chem