Chem 103 provides an introduction to the principles of chemistry, including atomic structure, periodic properties of the elements, chemical bonding, molecular structure, physical properties of compounds, chemical reactions, and stoichiometry. Chem 103 is the first course in a two semester sequence that includes Chem 104, and is an entry point for all chemistry majors and minors as well as the biochemistry/molecular biology major. It also fulfills requirements for several other majors on campus, including biology, geology, physics and kinesiology, and also pre-nursing and pre-pharmacy. It is assumed that students taking this course have satisfactorily completed courses in high school chemistry and algebra. Chem 103 credits also qualify for General Education II credits with a laboratory component.

Lecture: Section F0F Mon. and Wed., 3:00 pm - 4:15 pm, Phillips Hall 117
Instructor: Warren Gallagher Phillips Hall 437 (715) 836-5388 wgallagh@uwec.edu
Office hours: By appointment

Course Materials:

Clicker We will be using a student response system called i>Clicker this semester. The clickers will be used to respond to questions during the lecture and to record attendance. (These are available for purchase at the book store)
Course Website Point your browser to http://www.chem.uwec.edu/Chem103_F08_F0F. Among other things, you will find copies of the syllabus, schedule, problem assignments, answer keys, and lecture overhead.
Lab Manual You have already paid for this. It will be distributed to you on the first day of lab. You will want a 3-ring binder to hold your lab manual.
Goggles Safety goggles are required anytime we are doing wet chemistry in the lab. They are available for purchase from the bookstore. Please bring them to the first lab session.
Scientific Calculator Minimally one that can do scientific notation and has basic mathematical functions such as log, ln, 10^x, and √. Please bring your calculator to all lecture and lab meetings.

Course Goals:

Chem 103 is also intended to contribute to three of the eleven academic goals for a baccalaureate degree from UW-Eau Claire:

- An ability to inquire, think and analyze.
- An understanding of numerical data.
- An understanding of science and scientific methods.

Chemistry’s primary focus is to understand nature at its most basic, molecular level. Unfortunately, this is a level that is far too small to be experienced directly; we need instead, to cultivate an intuition that will allow us to see these things. Through the rigorous application of the scientific method over the past two centuries, chemists have been able to build a very sophisticated and detailed model to describe nature at the molecular level. By the end of this semester, it is our goal that you too will begin to see the world through this powerful lens.
**Attendance Policy:**

Attendance in lecture will be monitored using clickers (see below). Excessive, unexcused absences will be reported to the Office of Student Development and Diversity. Please email me (wgallagh@uwec.edu) or leave a message on my answering machine (836-5388) if you intend to miss more than a couple of lectures in a row. In the event of an absence, you are still responsible for all materials covered, and all announcements and assignments made.

- Missing an exam or lab session due to participation in a university sanctioned athletic event, or an approved field trip for another course, will be considered an excused absence. In the case of a severe illness or a family emergency that takes you away from campus, you should contact the Office of Student Development and Diversity (836-2003); they will contact your instructors to inform them of your absence. If this procedure is followed, such absences will also be considered excused. In the case of excused absences, arrangements can be made to make up missed exams and labs. Because I will be dropping your two lowest quiz scores this semester, I will not, in general, allow students to make-up quizzes that are missed.

- Attending all laboratory sessions is mandatory. If you miss a laboratory session because of an excused absence, you will be allowed to make it up by attending one of the other lab sections. (For those of you registered for the Friday afternoon lab section, “My ride is leaving before 5.” will not be considered a valid excuse for missing a lab.) If you anticipate a problem with attending all scheduled laboratory sessions for which you are registered this semester, you should reconsider taking this course.

**Students with Disabilities:**

Any student who has a disability and is in need of classroom accommodations should contact both the instructor and the Services for Students with Disabilities Office in Old Library 2136 at the beginning of the course.

**Academic Integrity:**

The official university policy on academic integrity will be followed in this class: “Any academic misconduct in this course is a serious offense, and the strongest possible academic penalties for such behavior will be pursued. The disciplinary procedures and penalties for academic misconduct are described in the UW-Eau Claire Student Services and Standards Handbook (http://www.uwec.edu/sdd/publications.htm) in the section titled: Chapter UWS 14 – Student Academic Disciplinary Procedures.”

**Clickers:**

We will be using clickers in lecture this semester. Given the large size of the class, it will hopefully provide an opportunity for a larger number of students to participate in classroom discussions. For each lecture, I plan to pose a handful of questions for you to respond to with the clickers. This will help both you and me gauge your understanding of the material. Your responses to questions will be recorded. The purpose behind the clickers is primarily to get you to think and respond to questions. You will be awarded 80% for participation and an additional 20% for answering the questions correctly. Your participation will also be used to monitor your attendance in lecture. The clicker responses will be used to award up to 3 extra-credit points to your final semester grade. Therefore, you should plan to bring your clickers to every class. The clickers are available for purchase at the University Bookstore. The University has adopted i>Clicker as the campus standard, so you may be required to have a clicker for some of your other classes, either this semester or in the future. You only need to purchase a single i>Clicker for all of your classes. You will also have the option of selling the clicker back to the bookstore at the end of the semester.
Grading:

3 in-class exams at 100 points each (See the Class Schedule for the dates.) 300
7 in-class quizzes at 10 points each the lowest two quizzes will be dropped (These will be announced the class period before they are given) 50
Final Exam (comprehensive) 100
Laboratory Hand-in Assignments 70
Laboratory Practical Exam 50

Total 570

• Semester grades will be assigned on a percentage basis: 90 – 100% A
80 – 89% B
65 – 79% C
55 – 64% D
< 55% F

• +/- grades will be assigned at the end of the semester for borderline situations and will be based on subjective criteria that include attendance, class participation and overall perceptible effort that you put into the class.

Advice:

You will get the most out of this course if you choose to take ownership of it. In lecture we will review and discuss topics found in the textbook and will work through and discuss problems. You will benefit most from these activities if you do an initial reading of the material in the textbook before coming to class, and make an effort to keep up to date with working problems. The lecture schedule indicates the sections in the book that will guide our discussions at each meeting. Problems will be assigned, which highlight the concepts that you should focus on. In general, assigned problems will not be collected. The answers to some of the problems can be found in the back of your textbook. I suggest that as you read and work problems, that you keep a journal that logs questions and lists problems that you are struggling with. You should then seek out answers to these questions and problems. I will provide opportunities in lecture for this. Your are also encouraged to corner me in lab or make arrangements to meet with me outside of class.