CHE 107: Principles of Chemistry
Course syllabus and policies

Fall 2009
MTWF 10:30 – 11:20 pm
Nobel Hall Auditorium

Instructor:

Dr. Carolyn Wanamaker
Office: Nobel Hall room 113
Office Hours: Tuesday 11:30—12:20 and 4:30—5:20, Wednesday 9:00—9:50 and 1:30—2:20

If you cannot get to my office hours, the best thing to do is to email me with some of your free hours so we can make an appointment. You are also very welcome to drop by my office; if I am not tied up with other obligations, I will be glad to meet with you without an appointment. Please note that the time right before class is generally NOT a good time to meet with me.

Phone: x6332
Email: cwanamak@gustavus.edu

Required materials:

Textbook: General Chemistry: The Essential Concepts, 5th Edition, Chang, McGraw Hill
Calculator: Must do logarithms and exponentials (and you must know how to use it!).
Lab supplies: Safety goggles, bound carbon-copy laboratory notebook, and laboratory experiments packet, all available from the Book Mark. (If you are in Discovery lab on Wednesdays at 1:30, do not buy the laboratory experiments packet.) You must wear closed-toed shoes for all lab periods.

Online resources:

aris.mhhe.com: This is where you do homework assignments and view homework grades.
moodle.gac.edu: This is where you can find all other course information and handouts.

About this course: Principles of Chemistry is an introductory chemistry course. This course provides a basic understanding of key chemistry principles for both the students who will continue in chemistry and those who will never take another chemistry course. The course therefore focuses on basic principles for the well-informed citizen, but also must prepare students for upper-level coursework. Topics covered will include the fundamental concepts of chemistry, including the atom, periodicity, stoichiometry, properties of gases, liquids and solutions, acids and bases, chemical energetics, and bonding. Laboratory work is coordinated with lecture and is intended to illustrate principles and develop experimental skills.

Attendance: Regular attendance is virtually required for success in this class. Although there is not a portion of your grade allotted to attendance, you will be responsible for all material covered during the class period, even though it may not be fully described in the other course materials. Laboratory attendance **IS** required every week. If you must miss a laboratory meeting, you must fill out a form (available on Moodle) and email it to the laboratory scheduler (Todd Swanson, tswanso2@gustavus.edu) before you will be allowed to make up the experiment.

Homework: Homework assignments will be given nearly every week through the ARIS website. Homework assignments will be accepted until 2:30 pm on the due date. You will be allowed to attempt each assignment five times; the higher of your five scores (if submitted five times) will be recorded. In general, late assignments will not be scored. You can still complete the assignments online for your benefit. Regardless of the direct impact on your grade, mastering the material included on the homework assignments is the best way to learn the subject matter and do well on the exams. If you are unable to turn in a homework assignment on time, you are allowed *one* extension (send me an email to request it).

Quizzes: There will be 4 quizzes and 5 exams (see last page for dates). Quizzes will take 10 – 30 minutes and may be held in class, online, or as a take-home exercise. In general, missed quizzes cannot be made up and will result in a score of zero. For extenuating circumstances, contact me. Simply forgetting to take an online quiz is *not* considered an extenuating circumstance.

Exams: There will be 5 scheduled one-hour exams and one final exam (see last page for dates). These will contain both multiple-choice and short-answer questions and will test your understanding of material covered in lecture and laboratory. Exams will primarily test material covered since the last exam, but also may include earlier material.

I expect you to take your exam on the day scheduled, and at the time scheduled. If circumstances make it *necessary* for you to miss an exam, notify me as soon as possible *prior* to the exam date so we can schedule a make-up exam. There is no guarantee that the make-up exam will have similar content, format, and/or level of difficulty than the in-class exam. If you miss an exam without notifying me in advance you risk grading penalties, including earning a zero on that exam. If you must miss an exam, I will ask for confirmation of your reason for missing the exam. Please do not be offended; I require this of everyone.

You must bring your own calculator to each exam. Sharing of calculators is not allowed, and using calculator programs on communication devices such as cellular phones is likewise prohibited. The use of any potentially useful information programmed by the student into (or otherwise attached to) a calculator constitutes academic dishonesty. Ask me if you are unsure if a program you have on your calculator is allowed.

The final exam will be cumulative. Please note the date and time set by the registrar: Monday, December 18th, 10:30 am – 12:30 pm. The final will be held in the auditorium.

Laboratory: It is essential that you attend all laboratory sessions. Your laboratory instructor may be someone other than me. If you have specific concerns relating to the laboratory, please speak with your laboratory instructor. Most of the laboratory sections share a common lab manual, experiment schedule, and attendance policy, except Discovery Lab (which meets Wednesdays at 1:30 pm). Whichever section you are registered for, the laboratory program complements the lecture and you must pass both lab and lecture to receive a passing grade. Thus, even though the lab component counts 20% of your grade, if you fail this portion you will receive an overall grade of "F".

A note to students in the "regular" lab: If there is a good reason that you cannot attend your regularly scheduled laboratory section, you should fill out the "Make-up Lab Request Form" available on the course Moodle site. Email the completed form to Todd Swanson at tswanso2@gustavus.edu. Detailed instructions regarding make-up lab procedures can (and should) be viewed in the "Lab Attendance Policy" file on the course Moodle site.

A note to students in discovery lab: The concepts and skills learned in the laboratory WILL be tested. Since the majority of students are in the "regular" lab sections, the experiments from that

section will be most likely to show up on exams. My expectations of what you have learned will be limited to what we discussed in the lecture, and any experiment that is performed in all lab sections. This means that when we discuss a laboratory experiment in lecture, you should pay attention, even if you will not be doing that experiment.

Lecture Notes: I will provide lecture notes of my own for each chapter (available on Moodle). However, I will leave some important ideas (and problems I work in class) blank for you to fill in yourself. If you miss class, it is your responsibility to fill in missing information; I will not post or provide notes with the blanks filled in or problems worked out. Also, I will never, under *any* circumstances, post any original Powerpoint slides used in class.

Honor code: As members of the Gustavus Adolphus College community of scholars, you and I have agreed to abide by an excellent honor code, which you signed when you registered for classes. If you have forgotten the details of this code, please refer to the Academic Bulletin.

For homework assignments, I encourage you to work on problem sets with your classmates. Still, you must complete the homework for yourself.

For quizzes and exams, you must do all the work on your own, and must only use the materials and resources that are specifically allowed according to the quiz/exam instructions.

In laboratory, you are required to use only your own data, or that of your group (when appropriate). As with homework, you are encouraged to discuss your laboratory results with fellow students in your group and others, as long as you submit your own work.

Under our code, you are not expected to police others' actions, but you are expected to report violations of which you become aware. Every effort will be made to keep such reports confidential. Keeping silent about honor code violations is itself an honor code violation.

Sometimes it is difficult for students to negotiate the finer points of academic honesty, especially when it comes to homework and lab. If you have any questions about these policies, please come see me and I'll be happy to explain in more detail.

Any student found in violation of the academic honesty policy and honor code will receive a grade of 0 for that assignment or activity. A second offense will result in an F for the course. The Dean will be notified of all offenses.

Succeeding in CHE 107:

Keep up with the work: For some students who have taken chemistry before, this course may seem easy in the beginning, but it does get harder quickly so I advise developing good study habits from the start. If you have not taken a chemistry course before, you may find the class more challenging, especially in the beginning. There is no reason you cannot succeed in this class without having taken high school chemistry, but you will have to work hard from the beginning. Please come by my office in the first week or two of classes and we can talk.

Attend class and do the homework: To succeed in this class, it is essential to come to class and lab, keep up with the reading and the homework and to really, honestly work through all the problems on your own. Following along in class as problems are worked is not enough. The homework assignments are meant to help you keep pace with the lecture material and avoid falling behind. In addition, doing the homework should be a reliable way of boosting your course grade.

Take good notes: I will provide partially completed notes for you (and in my experience, everyone uses them…). Hopefully, this will allow you to pay closer attention to what is SAID in class. Be sure, however, to fill in all the missing information in the notes. Your notes should be your primary

resource when studying for an exam. I will not test you on any material which I do not cover in lecture.

Ask questions: Try not to be shy about asking and answering questions in class, and seeking additional help. If you have a question, it is likely that someone else in the class has the same question and will be grateful that you asked. I am happy to spend time with you outside of class to make sure you understand the course material. There are other sources of help on campus as well, including the chemistry tutors who meet Sunday-Thursday nights in Nobel 305. The most important thing is to take care of points of confusion as they come up, to avoid a snowball effect.

Other campus resources: If you find that you are having trouble with identifying a successful learning strategy, with time management, or with test anxiety, by all means come see me, but please also consider the Academic Advising Center (x7027). This office is staffed by wonderful, talented people who are experts at dealing with these sorts of issues.

If you have a physical, psychiatric/emotional, medical, attentional, or learning disability that may have an effect on your ability to fulfill course expectations, please contact Laurie Bickett (x6286, lbickett@gustavus.edu), in the Academic Advising Center. She will review your concerns and decide with you what accommodations are necessary. I will be happy to work with you, upon receipt of documentation from her. Discussions will remain confidential.

Cell phones and other wireless devices: I do not allow the use of cell phones, pagers, blackberries, and similar devices in my classroom. Noises from these devices are disruptive to the entire class. Likewise, students with their attention diverted by checking caller ID, sending email, and text messaging learn little chemistry. I will leave my own cell phone in my office during class, and I expect that each of you will leave yours at home or turn it off.

Course grade: I do not guarantee that I will use a grading curve. I will adjust letter grade assignments only if I feel the numerical scores earned do not reflect the level of mastery of material attained by the class. There is no limit to the number of "A" grades that I will give. The most likely grade breakdown is as follows:

A	94-100%
A-	90-93%
B+	87-89%
B	83-86%
B-	80-82%
C+	77-79%
C	73-76%
C-	70-72%
D	60-69%
F	< 60%

Exams:	50%	(5 x 100 points)
Quizzes:	6%	(4 x 15 points)
Laboratory:	20%	(200 points)
Homework:	12%	(12 x 10 points)
Final exam:	12%	(120 points)
Total:	100%	(1,000 points)

Lecture schedule: Below is a rough outline of the topics that will be discussed in lecture. The schedule is tentative and may change if we need to spend more time on a given topic.

Week	Monday	Tuesday	Wednesday		Friday	
9/7-9/11	No Class (Labor Day)	Introduction; Ch. 1	Ch. 1		Ch. 1	*Sept 12: HW 1 due*
9/14-9/18	Ch. 2	Ch. 2	Ch. 2		**Quiz 1**; Ch. 3.7, 4.1-4.4	*Sept 19: HW 2 due*
9/21-9/25	Ch. 3.7, 4.1-4.4	Ch. 3.7, 4.1-4.4	**Exam I** (Ch. 1, 2, 3.7, 4.1-4.4)		Ch. 3, 4.5-4.6, 13.3	*Sept 26: HW 3 due*
9/28-10/2	Ch. 3, 4.5-4.6, 13.3	Ch. 3, 4.5-4.6, 13.3	Ch. 3, 4.5-4.6, 13.3		**Quiz 2**; Ch. 5	*Oct 3: HW 4 due*
10/5-10/9	Ch. 5	No Class (Nobel Conf.)	No Class (Nobel Conf.)		Ch. 6, 18.1-18.5	*Oct 10: HW 5 due*
10/12-10/16	Ch. 6, 18.1-18.5	Ch. 6, 18.1-18.5	Ch. 6, 18.1-18.5		**Exam II** (Ch. 3, 4.5-4.6, 5, 6, 18.1-18.5)	*Oct 17: HW 6 due*
10/19-10/23	Ch. 7	Ch. 7	Ch. 7		Ch. 8	*Oct 24: HW 7 due*
10/26-10/30	No Class (Reading Day)	No Class (Reading Day)	Ch. 8		**Quiz 3**; Ch. 9	
11/2-11/6	Ch. 9	Ch. 9	**Exam III** (Ch. 7-9)		Ch. 10	*Nov 7: HW 8 due*
11/9-11/13	Ch. 10	Ch. 10	Ch. 12		Ch. 12	*Nov 14: HW 9 due*
11/16-11/20	**Quiz 4**, Ch. 13	Ch. 15	Ch. 15		Ch. 15	*Nov 21: HW 10 due*
11/23-11/27	**Exam IV** (Ch. 10, 12, 13, 15)	Ch. 16	No Class (Thanksgiving Break)		No Class (Thanksgiving Break)	
11/30-12/4	Ch. 16	Ch. 16	Ch. 17		Ch. 17	*Dec 5: HW 11 due*
12/7-12/11	Ch. 14	Ch. 14	Ch. 14		**Exam V** (Ch. 16, 17, 14)	*Dec 12: HW 12 due*
12/14-12/18	TBA	Review	No Class (Reading Day)		**Final Exam 10:30 – 12:30**	