

CHM 152 Syllabus**Lecture Section 19052 T/TH 8:30 – 9:45 AM D 124****Problem Session TH 12:00 – 1:00 PM D 122****FREE Tutoring Wed 9 AM – 12 PM D 109**

Instructor: Christina Clark
Office Location: D 106
Office Hours: By appointment

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Web page: www.cclarkchemistry.com
CHEM AT GCC LS (A) 137 Mon & Tue 9-5

Course Description

Welcome to Chemistry 152 at GCC. Chemistry 152 is the second semester of a two-semester sequence of General Chemistry covering chapters 12, 13, 14, 15, 16, 17, and 22 in *Chemistry* 5th Edition by McMurry/Fay. This course will include studies of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics. Completion of CHM152LL is required to meet the Natural Science requirement. Official course objectives can be found at <http://www.dist.maricopa.edu/cgi-bin/cpr.pl?trm=20056&crs=chm152&inst=99>

Success in this course is a matter of exposure and practice. Staying current (or ahead) with readings and practice problems will greatly help you process the new information presented in class. Be patient when doing the problems – you *learn* the most when you struggle to figure out how to do a problem. Also be aware that it may take several readings to understand the material. **Plan to study at least 2-3 hours outside of class for every hour of lecture.** It will be most beneficial if you spread your study time out a little bit everyday (about 30 -60 minutes) rather than trying to spend a whole day studying the material. Spreading it out will give you time to process the information without taxing your brain!

Lab is a separate 1-credit hour course (you receive a separate grade for lecture and lab), and you must enroll separately for lab. You do not need to have the same instructor for lecture and lab, although you may find it to be beneficial to do so.

What you need for this class:**Required:**

Chemistry by McMurry/Fay, 5th Edition (Pearson/Prentice Hall publishing, 2008)

Homework assignments – on www.masteringchemistry.com. Homework assignments will be due each Tuesday after we finish a chapter. For example, if we finish Chapter 12 on Thursday, January 28th, the homework assignment will be due on Tuesday, February 2nd by 11:55 PM.

Calculator: A **non-programmable calculator** (basic or scientific) capable of computational and exponential functions will be necessary for homework and exams. Common uses will include scientific notation, logarithms, exponents, and x-roots. Programmable calculators will not be permitted on quizzes or exams (the department has calculators you can borrow).

Optional:

PowerPoint slides available on my website: www.cclarkchemistry.com - you may find these useful to print out (as handouts, ~ 6 per page) and bring to class.

Worksheets with answer keys on my website: www.cclarkchemistry.com - students typically find these very helpful when studying for exams.

Additional resources can be found at

Dr. Leedy: http://web.gccaz.edu/~dleedy/152_lecture.htm

Dr. Smith: <http://web.gccaz.edu/~ksmith8/rev152.htm>

Extra Help Links: Compiled by Dr. Smith, these links are to outside sources you may find useful.
<http://web.gccaz.edu/~ksmith8/help.htm#152>

Solutions Manual to accompany McMurry/Fay. I have a copy in my office you can borrow and there is a copy in the main office in the lobby that you can borrow.

Attendance Policies

Attendance will be taken daily. Anyone not enrolled in the class may not attend (liability issues). Therefore, you may not bring children to class (call Child Care Resources and Referral Service (602-244-2678) for free help finding last-minute State-approved day care). Anyone with 4 or more absences during the first 10 weeks of the semester may be dropped from the course. **After the 10th week (April 2nd), if you stop coming to class and do not withdraw, you will be assigned an “F” for the course. You may request in writing, up to the last day of class, to receive a “W” at the end of the semester. Once you submit this written request, you may no longer attend class. If you take the final exam or fail to submit a request in writing, you will be assigned a letter grade for the course!**

Course Grading (It is your responsibility to elect to take this course Pass/Fail at the beginning of the semester.) You can check your grades throughout the semester on Blackboard. Final grades will be posted on my.maricopa.edu.

*One-hour Exams 100 pts (x 3)	300 pts
*Final Exam	150 pts
*Homework 10 pts (x 7)	70 pts
*Quizzes 10 pts (x 14)	140 pts (only the top 14 grades will count)
Total	660 pts

Course Grade Assignments

<u>Percent average</u>	<u>Point Range</u>	<u>Letter grade</u>
≥ 90 %	594 – 660	A
≥ 80 %	528 – 593	B
≥ 70 %	462 – 527	C
≥ 60 %	396 – 461	D
< 60 %	<396	F

- **Special Circumstances for Exams:** None of the graded exams will be dropped. Therefore, it is imperative that you be present for every exam and plan travel and other events accordingly. If university-sanctioned travel or excused events do interfere with an exam date, then it is your responsibility to contact me BEFORE the scheduled exam and take the exam BEFORE the regularly scheduled time. You must **show documentation** in order for an early exam to be administered. All exam dates are scheduled at the beginning of the semester. Exam dates will not be changed but the material covered on them might be shifted depending on the pace of the course.
- **Homework:** Graded homework exercises will help you gauge your understanding of the material presented in each chapter. Homework assignments will be scored out of 10 points and will be graded on relative performance. If you answer 90 – 100% of the questions correctly, you will receive 10 points. 80 – 89% correct will earn you 9 points, etc. Less than 50% will result in a score of 0 for a homework assignment. How to access homework will be covered the first day of class.
 - Additional worksheets are available on my website as extra practice material to help you study. They will not be turned in or graded, although they will be helpful for you. Answer keys to the worksheets are posted online.
- **Group Quizzes:** Group quizzes and some individual quizzes will be given during lecture and will not be announced. Therefore it is in your best interest to attend every class. In-class quizzes will be graded on a five-point scale. Make-up quizzes will be allowed if I am notified before an absence (via email or phone) and if **written documentation is provided**. It is your responsibility to schedule a make-up quiz. We may take many quizzes, but only the top 14 scores will count toward your final grade.
 - No whining is allowed when quizzes are announced.

Sources of Help

In addition to my FREE tutoring hours listed above, there is an hour problem session scheduled on Thursdays from 12:00 – 1:00 PM in D 122. This is solely for CHM152 students and it's an opportunity to work through problems. I highly recommend making it to the problem session or the FREE tutoring at least once a week. Additionally, GCC Main is offering FREE tutoring on Mon and Tues from 9-5 in LS(A) 137. Chemistry instructors will be available for additional help throughout the week. A schedule will be posted of when each instructor will be available for help. The department will print and distribute a bookmark listing all office hours, CHEM AT GCC help hours, and tutoring hours for the semester.

Special Accommodations

If you need special accommodations for lecture or testing purposes, please contact the Disability Services and Resources office (TDS building, phone 623-435-3080). Please see me during the first week of classes to discuss appropriate accommodations to meet your needs. If you require special accommodations for exams, please schedule a time to see me as early as possible in the semester.

Withdrawing from the course

The unrestricted withdrawal deadline is **March 5th** (my signature is not needed). The restricted withdrawal deadline is **April 26th** (you will need my signature in order to withdraw). You may also elect to receive a "W" at the end of the semester if you submit a written request **up to the last day of class**. Once you elect to withdraw from the course you may no longer attend (see attendance policies). You cannot elect to receive a "W" for the course if you take the final exam – you will receive a letter grade for the course.

Academic Integrity

Cheating will absolutely not be tolerated. Cheating is bad! This includes (but is not limited to) any form of inter-student collaboration on exams or external assignments that is not specifically sanctioned by the professor, use of prohibited materials or devices during exams, copying or distribution of quiz or exam answers prior to the test, and plagiarism. See the student handbook for statements about student responsibility regarding cheating and academic integrity (<http://www.gc.maricopa.edu/catalog/scholastic.htm>)

Taping Policy

You may audio-tape lectures for personal use. No video-taping is allowed unless you receive my permission before each use.

Cell Phone/Pager Policy

Cell phone use during class is not permitted. Turn all ringers off before entering the classroom. Take all **vital calls outside the classroom**. **If your cell phone rings, beeps, vibrates, or otherwise makes noise during an exam, your exam will be taken up at that point. This includes the final exam! Don't bring it to an exam!**

Email

To ensure a timely response from me when you send emails, please include an appropriate subject and type the email in a professional manner. Emails sent in "text lingo" may or may not solicit a reply from me. Please email me at c.clark@gcmail.maricopa.edu and write CHM152 in the subject heading.

Statement of Student Responsibility

You are responsible for the information contained in this syllabus and in the GCC college catalog and student handbook (www.gc.maricopa.edu/catalog). If you have questions or concerns about any of the policies please see me as soon as possible so we can address them. Your signature on the last page is your agreement to the policies outlined in this syllabus. Students will be notified by me of any changes in course requirements or policies.

CHM 152 Class Schedule (subject to change as needed)

Date	Ch. (Sec.)	Topics	HW Dates	Notes	Lab Experiments
Wk 1		Syllabus	Intro: 1/26	<i>Monday Holiday – MLK Day</i>	Intro; Pre-test
1/19-1/21	12 (1-3)	Reaction rates			
		Solving for rate laws			
Wk 2	12 (4-13)	Integrated rate laws	Ch. 12: 2/2		Solutions Worksheet
1/26–1/28		Reaction mechanisms			
		Arrhenius Equation			
Wk 3	13 (1-9)	Equilibrium; K_c , K_p			Kinetics
2/2-2/4		K calculations, Q			
		Le Chatelier's Principle			
Wk 4	13 (10)	Catalysis	Ch. 13: 2/16		Kinetics Help Session
2/9-2/11	14 (1-7)	Acids and Bases			
		Relative strength			
Wk 5		Exam I – Tuesday 2/16 - Ch. 12 and 13		<i>Mon. Holiday – President's Day</i>	Nuclear
2/16-2/18	14 (8-9)	K_w , pH, pOH			
		pH of acids, K_a of weak acids			
Wk 6	14 (9-16)	Equil Conc.; % Diss.; Weak bases	Ch. 14: 3/2		Le Chatelier's Principle
2/23-2/25		Salts			
	15 (1-3)	Common ion; buffers			
Wk 7	15 (4-9)	Buffers		<i>March 5th – W without signature</i>	Intro Strong/ Weak Acids
3/2-3/4		Titrations			
		Titrations			
Wk 8	15 (8-12)	Titrations			Weak Acids, Weak Bases
3/9-3/11		Solubility			
		Solubility; K_{sp}			
3/15 - 3/19		No Class – Spring Break!			No labs
Wk 9	15 (13)	Q_{sp}	Ch. 15: 3/30		Exploring Buffers
3/23-3/25		Review of Ch. 15			
		Exam II - Thursday 3/25 - Ch. 14 and 15			
Wk 10	16 (1-7)	ΔH calculations; Review of 151			Acid-Base Titrations
3/30-4/1		Entropy; Standard Entropy			
		Free Energy			
Wk 11	16 (8-11)	Standard Free Energy	Ch. 16: 4/13		Qualitative Analysis
4/6-4/8		Free-Energy Calculations			
		Thermo Calculation Practice			
Wk 12	17 (1-5)	Review of Redox rxns; Oxidation States			Thermodynamics
4/13-4/15		Galvanic cells			
		EMF, E°_{red} Table			
Wk 13	17 (6-11)	EMF and K; Batteries	Ch. 17: 4/27		Redox Titration
4/20-4/22		Nernst Equation			
		Review			
Wk 14		Exam III – Tuesday 4/27 - Ch. 16 and 17		<i>April 26th – W with sig- nature</i>	Electrochemistry
4/27-4/29		Nuclear reactions; nuclear particles			
		Radioactive decay; Half-lives			
Wk 15		Nuclear Stability; Fission, Fusion	Ch. 22: 5/11	<i>Must ask for W before the final</i>	Final Exam
5/4-5/6		Transmutation; Biological Effects			
		Nuclear Power Plants			
5/13		Final Exam – 8:00 – 9:50 AM	<i>If you take the final, you get a letter grade!</i>		

Final Exam

Section 19052 Final Exam: Thu., May13 8:00-9:50 AM D 124 (Note this is 30 min earlier!)

My Spring 2010 Schedule: Block off the times during which you will be in classes (mark with “C”), at work (“W”), and other busy times (“B”). Then indicate the blocks of time you can dedicate to studying (“S”).

Hour	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8 – 9 am							
9 – 10 am							
10 – 11 am							
11am – 12pm							
12 – 1 pm							
1 – 2 pm							
2 – 3 pm							
3 – 4 pm							
4 – 5 pm							
5 – 6 pm							
6 – 7 pm							
7 – 8 pm							
8 – 9 pm							
9 – 10 pm							
10 – 11 pm							

Extra hours of study:

Tear this sheet on the line below (as best as you can) and turn in the contract once you have read and understand the policies outlined in this syllabus.

Syllabus Contract

I (print name), _____, acknowledge that I have received and understand the attached course policies for CHM 152 lecture.

I will not cheat, nor will I encourage or allow others to do so. _____ (initial)

I understand that this course will require considerable time and effort on my part and that I need to allow an appropriate amount of time for studying the material outside of class, work, and family obligations.

(initial) _____

Signature: _____

Date: _____