

Glendale Community College, Main Campus
Fall 2008
CHM 151 Syllabus
MWF 9:00 – 9:50 am, Section 34758, PS-156

Instructor: Laona Burk
Office Location: PS-117
Office Hours: Tu: 10:00am – 12.00pm, Th: 3:00pm – 4:00pm
Fr: 10:30am – 11:30am
CHEM Help Hours: Monday: 3:00 pm – 4:00pm (PS-150)
Tutoring: Wednesday: 10:30am – 12:30pm (PS149)

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Course Description

Welcome to Chemistry 151 at GCC. Chemistry 151 is the first semester of a two-semester sequence of General Chemistry covering chapters 1-11 in *Chemistry* 5th Edition by McMurry/Fay. This course requires that you have had an introduction to chemistry, either in high school or an introductory course in college (e.g., CHM 130) in the past five years (taken within the last two years is recommended), as well as the equivalent of Intermediate Algebra (MAT 120 or 122). In this course we will cover elements and compounds, atoms and molecules, chemical and physical properties and changes, chemical bonding models, and properties of solutions. We will look at how measurable macroscopic properties can be explained by phenomena that occur at the molecular level. Throughout the learning process, you will also improve your critical thinking, questioning, and problem solving skills.

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-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.

Official course competencies and a course outline are available from the District Website or from GCC's Chemistry Home page (under "Programs and Course Advice") (<http://www.gc.maricopa.edu/chemistry>).

What you need for this class:

Required:

Chemistry by McMurry/Fay, 5th Edition (Prentice Hall, 2008) or the 4th edition (See "Book Options for CHM 151" handout)

Homework assignments – MasteringChemistry (an online homework/tutoring program). Homework assignments will be due each Monday morning after we finish a chapter. For example, if we finish Chapter 2 on Wednesday, September 3rd, the homework assignment will be due on Monday, September 8th at 8 am. The schedule of homework due dates is included starting on page 3.

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 (especially if you continue on to CHM 152/154). Programmable calculators will not be permitted on quizzes or exams (the department has calculators you can borrow).

Optional:

PowerPoint slides available on my website - you may find these useful to print out and bring to class.

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

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 at (602)-244-2678 for free help finding last-minute State-approved day care. Anyone with more than 4 absences before October 31st may be dropped from the course. **After October 31st, 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 my website.

*One-hour Exams 100 pts (x 4)	400 pts
*Final Exam	200 pts
*Homework 5 pts (x 13)	65 pts
*Take-Home Quizzes 10 pts (x 8)	95 pts (only the top 8 grades will count)
Total	760 pts

Course Grade Assignments

<u>Percent average</u>	<u>Point Range</u>	<u>Letter grade</u>
≥ 90 %	684 – 760	A
≥ 80 %	608 – 683	B
≥ 70 %	532 – 607	C
≥ 60 %	456 – 531	D
< 60 %	<456	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 to schedule a make-up exam. You must **show documentation** in order for a make-up exam to be administered. If an exam is missed due to an unexcused absence, a make-up test will only be given at the discretion of the instructor. Make-up exams will only be available for two school days following the administration of the original exam.

- ***Homework:*** Graded homework exercises will help you gauge your understanding of the material presented in each chapter. Homework assignments will be scored out of 5 points and will be graded on relative performance. If you answer 70 – 100% of the questions correctly, you will receive 5 points. 50 – 69% correct will earn you 3 points. Less than 50% will result in a score of 0 for a homework assignment. Accessing and submitting 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. Answer keys to the worksheets will be posted online.
- ***Take-Home Quizzes:*** Take-Home Quizzes will be administered via my website. Students are encouraged to work together on the quizzes outside of class. You will have one week to complete the quizzes. For example, if a quiz is assigned on a Monday, it will be due the following Monday. **No late quizzes will be accepted.** The purpose of the quizzes is to prepare you for the exams, and you will find them very helpful.

Sources of Help

In addition to my office hours listed above, there is departmental tutoring every Monday in room PS-150. Instructors will be available every Monday from ____ am to ____ pm. A schedule will be posted of when each instructor will be available for help. Free tutoring is also available within the department. Schedules are posted in the lecture and lab rooms and in the lobby. The department will also print and distribute a bookmark listing all office hours, CHEM 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 **October 3rd** (my signature is not needed). The restricted withdrawal deadline is **December 1st** (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: Nothing says more about a person than his or her honesty and integrity. Since students compete with one another for grades and positions in degree and training programs, cheating is considered a serious offense. Students should consult with the student handbook or the catalog to review the policies and consequences of cheating. Rather than resort to such tactics, a student should contact the instructor and see if some extra help may resolve any problems in the course. See the student handbook for statements about student responsibility regarding cheating and academic integrity (<http://www.gc.maricopa.edu/catalog/scholastic.htm>)

Taping Policy: Lectures may be audio-taped for personal use only. 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.**

Statement of Student Responsibility:

You are responsible for the information contained in this syllabus. 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 151 LECTURE SCHEDULE

(subject to change as necessary to accommodate the needs of this class)

	<u>Date</u>	<u>Chapter (Sections)</u>	<u>Topic</u>	<u>Hmwk Due Dates</u>
M	Aug. 25	1 (1-13)	Introduction; Syllabus; Groups, elements	9/8
W	27		Density; Scientific Notation; Significant Figures	
F	29		Dimensional Analysis	
M	Sept 1		No Class – Labor Day	
W	3	1 (13), 2 (1 – 4)	Dimensional Analysis, Chemical History	9/15
F	5	2 (5-8)	Atoms, Molecules, Ions; Structure of the Atom	
M	8		Chemical Symbols; Definitions; Bonds	9/22
W	10	5 (1-8,10, 12-15)	Development of Periodic Table; EM radiation	
F	12		Quantum Theory	
M	15		Electron Configurations	9/29
W	17	6 (1-6)	Electron Configurations of Ions; Ionization Energy	
F	19	Exam 1	Chapters 1, 2, and 5	

M	22		Electron Affinity; Lattice Energy	
W	24	2 (9,10)	Acids/Bases; Nomenclature	9/29
F	26		Nomenclature	
M	29	7 (1-7,9-12)	Ionic/Covalent; Electronegativity; Lewis Structures	10/13
W	Oct 1		Lewis Structures; Molecular Geometry	
F	3		Geometry; Valence Bond Theory	
M	6		Valence Bond Theory; Hybridization	
W	8	10 (1-6,11)	Polar Bonds; Intermolecular Forces; Phase Changes	10/13
F	10		Vapor Pressure; Phase Diagrams; Types of Solids	
M	13	3 (1-3)	Balancing equations	10/27
W	15		Chemical symbols; Avogadro's number	
F	17	Exam 2	Chapters 6, Nomenclature, 7, and 10	
M	20		The mole	
W	22	4 (1-8)	Precipitation, Acid-Base, Redox Reactions	11/3
F	24		Net Ionic Equations; Solubility; Acid-Base Rxns	
M	27		Oxidation numbers; Identify Redox Reactions	
W	29		Activity Series	
F	31	3 (4-11)	Stoichiometry	11/17
M	Nov 3		Stoichiometry; Reaction Yields	
W	5		Limiting Reactants	
F	7		Molarity; Dilutions; Solution Stoichiometry	
M	10		Solution Stoichiometry; Titration	
W	12		Percent Composition; Empirical Formulas	
F	14	Exam 3	Chapters 3 (parts I and II) and 4	
M	17	9 (1-6)	Gases; Gas Pressure; Gas Laws	12/1
W	19		Ideal Gas Law; STP	
F	21		Gas Law Stoichiometry; Partial Pressure	
M	24		Kinetic Molecular Theory; Effusion/Diffusion	
W	26-28		No Class – Thanksgiving Holiday	
M	Dec 1	8 (1,3,5-11)	1 st Law; Heat Flow; Enthalpy ($q = \Delta H$); Std State	12/8
W	3		Heat of Phase Changes; Calorimetry; Hess's Law	
F	5	Exam 4	Chapters 9 and 8	
M	8		Heats of Formation; Bond Dissociation Energy	
W	10	11 (1-8)	Solutions; Solution Process; Concentration; Solubility	12/15
F	12		Henry's Law; Colligative Properties; Raoult's Law	

Final Exam

Dec 15th, Mon. 9:00 am – 10:50 am PS-156

My Fall 2008 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							

List other study times here:

(Sign the Contract below and tear off at the line – as best as you can....)

Syllabus Contract

I (print name), _____, acknowledge that I have received and understand the attached course policies for CHM 151 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: _____

Indicate a 3-letter, 4-digit code (e.g., ABC1234) you would like to use to look up your grades on the website.

Code: _____

Please list below the best phone number and email address to contact you if needed.

Phone Number _____

Email _____