

2015

Chemistry 101-005 General Chemistry Fall 2015

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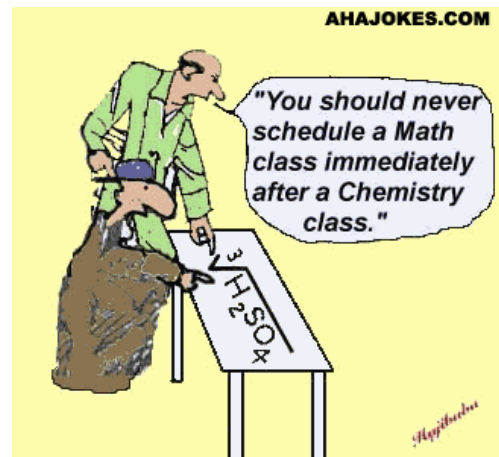
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**CHE 101-005
General Chemistry I
Parkland College
Fall 2015**



Lecture: MF 11:00am-12:50am L-242
Lab: W 11:00am-1:50am M-232

Instructor: Christina Beatty, MS, MS, Associate Professor
Office: L-213 Phone: 217-353-2041 (office) or 815-507-2041 (cell, text is ok too)

Email: I prefer you email me through the Cobra system, cbeatty@cobra.parkland.edu. If you cannot reach me there, you may try cbeatty@parkland.edu

Student Office hours (tentative): MT 1-1:50; W 10-10:50; F 9-10:50. (*email me if these do not work.*)

Prerequisite: Recent high school chemistry or completion of CHE 100 with a grade of "C" or higher.
Completion of MAT 098 or 086 with a grade of "C" or higher.

Required Materials:

- 1) **Text:** Burdge & Overby, Atom's First Chemistry (2nd Edition, McGraw-Hill 2014), with **Connect Plus** homework system. You may choose to use the e-book with Connect only or purchase the looseleaf edition in addition for only about \$50 more. Or use the book on reserve in the library instead.
- 2) **CONNECT PLUS code.** This comes with a new book (see #1). Otherwise you may purchase access to the text's online homework system, Connect, online: www.mcgrawhillconnect.com.
- 3) **Laboratory Manual:** "CHE 101 Experiments", Parkland Chemistry Staff.
- 4) **Laboratory Notebook:** "Student Lab Notebook with Spiral Binding". (You may use an old one).
- 5) **iClicker** (used or new). You also have the option to purchase access through your phone/tablet/laptop instead through www.iclicker.com (REEF Polling). (Do the free 14-day trial first). Note: If you are taking organic chemistry (200 level), purchase an iClicker. It is cheaper in the long run and your phones may not be allowed in class.
- 6) **Scientific Calculator.** Only scientific calculators are allowed on quizzes and exams. The testing center has some.
- 7) **Safety Goggles** (Z87 approved)
- 8) **Quarter:** A quarter is needed for the lab lockers and testing center lockers. You get it back each time.



Attendance

Part of your grade will depend upon clicker points which can only be obtained by coming to lecture. Attendance at all laboratory sessions, including the first week of class, is required. **Failure to attend the first laboratory session will mean no further labs can be completed unless the make-up safety session is attended. Failure to attend both the first lab and the safety make-up will eventually mean an F in the course due to lab incompleteness (see next paragraph.)**

If you miss more than two labs, you will fail the course regardless of your performance in the non-lab portion. Documentation will be required to consider any excused absences. You must attend Week 1's lab or the make-up safety training. If not, you cannot attend any subsequent labs and thus **will fail the class.**

Withdrawal

Aug. 30: Each instructor is required to assess your attendance. If you have **NOT** attended regularly up to this point, then you will be **withdrawn** from this class. This is also the last day you may **drop** a class without any record appearing on your transcript. Note: if your instructor withdraws you, you cannot receive any refund and a "W" appears on your transcript.

Oct. 16: Up until this point, the instructor may **withdraw** you from the class and a "W" will appear on your transcript. After this date, an instructor CANNOT withdraw you. You must withdraw yourself **by going to the Admissions Office** (see page 5 in the Parkland class schedule for more information on how to withdraw). Also, **nonattendance after Midterm will result in an F (not a W), unless you withdraw yourself** from the class before the withdrawal date listed next.

Dec. 4: **The last day you (as a student) can withdraw from this class is before 5:00 P.M. on this day.** A "W" will appear on your transcript instead of an "F". Again, an *instructor* cannot withdraw you past the midterm.

Academic Honesty

Anyone found to be cheating or committing plagiarism on a lab report, exam, quiz, etc. will receive a ZERO for that assignment and the incident will be reported. The instructor also reserves the right to give zeros for all assignments in that category. Cheating includes getting or providing answers from or to another student during before, or after an exam, lab, etc., copying answers to assignments from the Internet or other students' assignments (from this or previous semesters) and/or plagiarism (which means copying from another source without properly citing). There may be random iClicker serial number checks during the semester. If you are found with a clicker other than the one you originally registered, all other previous clicker grades will become zeroes. The complete policy on academic honesty may be found in the *Student Policy and Procedures Manual* – please review this policy here: <http://www2.parkland.edu/studentpolicy/honesty.html>. An atmosphere of mutual respect between and among teachers and students is expected in this class.

Make-up Policy:

If you know in advance that you have a serious conflict which will cause you to miss an exam or lab, be sure to **ask your instructor in advance** if it will be possible to complete the work or receive a make-up assignment. Documentation may be required to consider the request. If you miss a lab or an exam due to sickness, car trouble, etc., **call or email your instructor as soon as possible** (within one day) to explain the situation and to request if it will be possible to make up the work. Almost always, documentation will be required to consider the request.

Students with Disabilities

If you believe you have a disability, for which you may need an academic accommodation (e.g. an alternate testing environment, use of assistive technology or other classroom assistance), please contact the following person and then inform the instructor as soon as possible: Cathy Robinson, Director, Disability Services Room X148 (217)353-2082, crobinson@parkland.edu

Course Grading

Che 101-005 will use a *points* based grading scale. There are approximately 2000 points in the semester.

Exam dates and other due dates are posted on Cobra though a tentative schedule is found on the last page of this syllabus. **Please plan on checking Cobra on a regular basis.**

Course Assessments

<u>Type of Assessment</u>	<u># possible</u>	<u># dropped</u>	<u>Points each</u>	<u>Total points</u>
<u>Exams (50%) and Quizzes (12%)</u>				
Hour-Exams	4	0	150	600 (30%)
1 cumulative Final Exam	1	0	400	400 (20%)
13 Quizzes	13	1	20	240 (12%)
<u>Lab</u>				
Lab reports	9	1	35	280 (14%)
Formal Lab reports	2	0	60	120 (6%)
Pre-Lab quizzes	11	2	5	45 (2.3%)
<u>Homework</u>				
LearnSmart Post-lectures	27	6	3	63 (3.2%)
Connect HW	13	1	10	120 (6%)
<u>Research project</u>	1	0	65	65 (3.3%)
<u>Lecture Participation</u>				
Clicker points (weekly)	16	1	4	60 (3%)
Misc.				7 (0.4%)
TOTAL COURSE POINTS (subject to change)				~2000
Final course grade: A <u>minimum</u> of...(note the decimal for sig figs!) 90.% for A 80.% for B 70.% for C 60.% for D Below 60.% for F				

Exams:

Exams will be the traditional closed-notes, paper and pencil format in class. Each hour-exam will be worth 150 points and the final exam is cumulative and worth 400 points. Documented, valid excuses are necessary to allow any exam make-ups. No lowest exams are dropped.

Quizzes:

13 quizzes will be given. The **one** lowest quiz grade will be dropped. Most quizzes will be taken in **L161**, the Natural Sciences Testing Center. Please see Cobra for the most up-to-date schedule. You need a Parkland ID and a quarter. You will be required to use the testing center's scientific calculator. Do not bring your cell phone in.

Testing Center Hours:**9:00 am – 3:45 pm Mon. through Thurs.****9:00 am – 2:45 pm Fri.**

If you fail to take one or more quizzes, *for whatever reason*, that will simply count as your dropped quiz followed by zeroes. **There are no makeup quizzes.**

Lab :

A **prelab** assignment will be due for all labs (unless otherwise noted on the calendar). See Cobra for how to do this. **IF YOU DO NOT HAVE A PRELAB COMPLETE OR ARE MORE THAN 5 MINUTES LATE TO LAB, you will lose 50% of your points on the lab report.** If a prelab is not complete, you will be forced to complete the prelab in the lab commons and will start lab late (possibly not finishing on time). Therefore, it is essential to complete the prelab thoroughly and on time. Lab Reports are due at the end of class except for formal typed up labs and a few other scenarios at the instructor's discretion.

For most labs, when you arrive at lab, you will take a **prelab quiz** in the lab commons computers. There will also be **two formal lab reports** that will be typed up. More on this throughout the semester.

Extra Credit:

For most labs, there will be a post lab that can be completed on the lab commons computers or at home. For extra credit. There may also be extra credit opportunities. Extra Credit will be 2% max of your grade.

Homework:

LearnSmart:

These are found on the CONNECT website: www.mcgrawhillconnect.com. These are done *before* the Connect homework is done. LearnSmart creates an individualized learning path to help you succeed. It assesses your level of understanding of the material in the text and then helps you practice what you need further help on. Generally, there are 2 sets per chapter split up as "post-lectures" to practice what you should've learned in class, due by the time the next class starts. *Check the Cobra calendar for due dates.* For topics that come easily to you, it "knows" to not spend much time on those. The following is from the LearnSmart website, which describes LearnSmart:

- **Diagnose:** Student practice captures and reveals learning progress; **Remediate:** Personal learning paths automatically generate appropriate content based upon student knowledge level; **Flexibility:** Students access LearnSmart anytime and from anywhere using browsers or mobile devices such as the iPhone or iTouch; **Success:** LearnSmart improves student performance and retention.

CONNECT:

Homework is an important part of this course. It will be conducted on CONNECT, McGraw-Hill's electronic homework system. www.mcgrawhillconnect.com. Homework is important because it helps student understand the material covered in class and better prepare you for quizzes and exams. You should not leave the homework to the last day before it is due. Instead, try to finish problems to each section of a unit as we progress into the chapter. The due date of the homework will be given at the time of assignment; it is also available in the Cobra calendar. Generally, **HW is due at 11:00am on the day a quiz ends – the exact dates are posted on Cobra. No late HW will be accepted**, unless you receive permission as a result of a documented excuse such as a serious medical condition. Sometimes, there are a couple extra credit points worked into a HW assignment for technical issues. Therefore, it is possible to get over 100% in the homework category. It is suggested you attempt all problems carefully. If there is a technical glitch, that assignment will either be dropped or those points will be made up with the extra credit offered in other homework assignments. Do email your instructor right away if there appears to be technical issues. **Check the Cobra calendar for due dates**
What's the difference between LearnSmart and Connect? LearnSmart helps you prepare for class before class by checking that you understood the basics in the chapter. Connect helps you practice what we did in class through online problem sets.

Research Project:

A research project will be completed. For extra credit, you can attend the Natural Sciences Poster Session later in the semester in the college center. See Cobra for specifics

Lecture Participation (iClickers):

Daily clicker points will be assigned by answering questions at the beginning and during lecture. Some will be for points and others will be for participation. Also, there are activities in class that students will perform, sometimes in a team. These will be entered into Cobra as weekly clicker points. **Instead of buying a clicker, you can purchase clicker access for your smartphone, tablet or laptop for \$10 a semester. Talk to your instructor to decide what the best option is. See <https://www1.iclicker.com/products/reef-polling/> and "Create a New Account" but just do the 14-day free trial first.**

Misc.:

There are a few miscellaneous points including the following: taking the syllabus quiz, visiting Christina in L213; taking the replying to her email and turning in the syllabus confirmation sheet and letter to Christina.

Contents:

The course covers the following topics.*

Unit	Chapter	Topic
1	1	Chemistry basics & Measurement Review
	2	Atomic Theory and the Periodic Table
	3	Quantum Theory and the Electronic Structure of Atoms
	4	Periodic Trends
2	5	Bonding, Nomenclature and Moles
	6	Chemical Bonding I: Basic Concepts
	7	Chemical Bonding II: Molecular Geometry (VSEPR, Intermolecular Attractions, Valence Bond Theory, Hybridization)
3	8	Stoichiometry
	9	Reactions in Aqueous Solutions
	10	Thermochemistry
	11	Gases
4	12	Properties of Solids and Liquids
	13	Physical Properties of Solutions
	14	Thermodynamics
	15	Equilibrium

Special notes on Chapter 1: If you are correctly placed into this course, you have already studied these materials recently. Therefore, we will not use a lot of class time to go over this unit again. Please review this unit yourself and work on the HW assignment. When you have refreshed your memory and are ready, you will take the Ch. 1 quiz. **If you scored below 70%, it is highly recommended that you withdraw from the course and work on your chemistry and/or math skills before attempting this course again (perhaps by taking the late start Che 100-201*

that is offered even this semester).. Statistics show that students scored poorly on Quiz 1 typically withdrew from the course in 4 weeks (with no refund).

Fall 2015 Che 101-005 TENTATIVE quiz/exam schedule (check Cobra for most current)

Quizzes are offered in the Natural Sciences Testing Center, L161. Hours are 9-4 M-R and 9-3 F. Class time will be given on the day a quiz is offered. Exams are given in class on one day, not the TC.

week	Quiz	Starts	Ends
1	Ch. 1 Quiz	Thursday, August 27, 2015	Friday, August 28, 2015
2	Ch. 2 quiz	Thursday, September 03, 2015	Friday, September 04, 2015
3			
4	Ch. 3 & 4 quiz	Wednesday, September 16, 2015	Thursday, September 17, 2015
	EXAM 1 (in class)		Friday, September 18, 2015
5	Ch. 5 Quiz	Wednesday, September 23, 2015	Thursday, September 24, 2015
6	Ch. 6 Quiz	Thursday, October 01, 2015	Friday, October 02, 2015
7	Ch. 7 Quiz	Wednesday, October 07, 2015	Thursday, October 08, 2015
	EXAM 2 (in class)		Friday, October 09, 2015
8	Ch. 8 Quiz	Thursday, October 15, 2015	Friday, October 16, 2015
9			
10	Ch. 9 Quiz	Monday, October 26, 2015	Tuesday, October 27, 2015
11	Ch. 10 Quiz	Thursday, November 05, 2015	Friday, November 06, 2015
12	Ch. 11 Quiz	Thursday, November 12, 2015	Friday, November 13, 2015
13	EXAM 3 (in class)		Monday, November 16, 2015
14	Ch. 12 & 13 Quiz	Monday, November 23, 2015	Tuesday, November 24, 2015
15	Ch. 14 Quiz	Wednesday, December 02, 2015	Thursday, December 03, 2015
16	Ch. 15 Quiz	Monday, December 07, 2015	Tuesday, December 08, 2015
	EXAM 4 (in class)		Wednesday, December 09, 2015
17	FINAL EXAM in L242 11am-2pm	Monday, December 14, 2015	