CHEMISTRY 141

FALL 2013

CLASS SCHEDULE:	**Section 10B** MWF – 10:45-11:50 AM **(P206)**
INSTRUCTOR:	Dr. Nichole Powell
OFFICE LOCATION:	Pierce 210
OFFICE HOURS:	Designated hours: **Mon** and **Wed** 1:40 – 3 pm **Thurs** 9:40 – 10:40 am **(By Appt Only)**. You may stop by my office at any other time or make an appointment via email. My schedule is posted on my door. The last 15 minutes of most class sessions will also be reserved for answering questions.
CONTACT INFORMATION:	**Email**: nichole.powell@emory.edu **Telephone**: 770-784-8396

1. Course Description/Objectives.

General Chemistry I (CHEM 141) is the first of a two-semester course sequence designed to introduce you to the fundamental terminology, principles, and theories of chemistry. The topics taught will provide you with the skills and competencies needed in higher level chemistry courses.

2. Learning Goals.

The primary learning goals for this class are for you to:

- Utilize critical thought and reasoning to understand chemical behavior at the microscopic and macroscopic levels.
- Use your knowledge of chemistry and chemical systems to develop solutions to problems which you have not encountered before.

3. Content Goals.

You will be expected to master these areas of chemistry:

- The scientific method
- Conversion between different measuring systems
- Significant figures
- The structure of the atom
- Nomenclature
- Molecular mass and moles
- Stoichiometry
- Reactions in aqueous solution
- Molarity
- Gases
- Thermochemistry
- Quantum theory and electromagnetic radiation
- Electron configurations
- The periodic table
- Bonding
- Molecular geometry and hybridization
- Organic chemistry

CLASS MATERIALS (REQUIRED):
1. "Chemistry" 11th Ed. by Chang (including solutions manual)
2. Subscription to CONNECT (McGraw Hill)
3. Nonprogrammable scientific calculator (must be brought to every class). Students will not be allowed to borrow calculators from their classmates during class assignments, quizzes, or exams. The use of cell phones and PDAs will not be allowed.

For Lab – must have before your first lab meeting
3. Laboratory manual: sold by the Chemistry Department.
4. Carbon-copy lab notebook.
5. Safety glasses.

COURSE COMPONENTS:

ATTENDANCE

You are expected to attend each class period. You are allowed 3 absences in lecture and NO absences in lab. Each absence exceeding 3 absences will result in a corresponding point deduction from your final course grade (eg. 4 absences= 1 pt, 5 absences= 2 pts etc). There are no excused absences. Being cited 2 times for any combination of the following behaviors will count as 1 absence: arriving more than 10 minutes late for class, walking in and out of class (unless you are sick), leaving class early, being inattentive or working on other assignments during class.

You are responsible for all material covered in the lecture even if you were absent.

GRADED ASSIGNMENTS

Graded assignments (includes graded homework and learning modules) will be given throughout the semester. The assignments will usually be housed on Blackboard. Graded assignments will include chapter quizzes/homework which will usually be due within 48 hrs after we have completed the chapter in class.

NON-GRADED ASSIGNMENTS

You are expected to complete all assignments regardless of whether or not they will be graded. You are expected to work all in-chapter and end of chapter problems in your textbook unless otherwise noted.

POP QUIZZES

Pop quizzes will be given during the first 5 minutes of class throughout the semester. These quizzes are unannounced and will be used to assess your understanding of the course content. Pop quizzes will primarily assess the content covered in the previous class session. Your lowest Pop quiz grade will be dropped. Bonus pop quiz points may be earned during lecture for completing assigned problems during a given time period. These bonus points count only towards the pop quiz grade and may not exceed the maximum number of pop quiz points available during the semester. There is a limit on the number of bonus points you may earn per class.

EXAMINATIONS

Four (4) exams are scheduled during the regular class period. No make-up examinations will be given. Excuses including the reason for missing an exam must be presented **before** the scheduled exam- this may be done by email or sending a note to class. If the excuse is accepted, the grade obtained on the final exam will count in place of the missed exam. If your excuse is not accepted

you will receive a zero for that exam. You may only be excused from missing 1 exam.

Anticipated Exam Schedule:

#1	Friday, Sept 20
#2	Wednesday, Oct 9
#3	Friday, Nov 8
#4	Friday, Dec 6

Exam dates are subject to change. The sections to be covered in each exam will be announced in class.

Final Exam – will be given during the final exam period.
Section 10B on Friday, December 13 at 2 - 5 pm.

The final examination is mandatory and will be comprehensive. Any material discussed during the semester may be included in this exam. Final exams will not be returned.

LABORATORY

Laboratory sessions will be three hours per week. Each session will begin with a pre-lab meeting during which you will do the pre-lab quiz for that week's experiment and a post-lab quiz on the previous week's experiment. You will submit a lab report for each experiment – the due date is given in your lab syllabus. Please consult your laboratory syllabus all information regarding labs.

GRADING:

Your course grade will be computed as follows:

Graded Homework	4%
Learning Modules	2%
Pop Quizzes	3%
Exams (4)	56%
Final Exam (Cumulative)*	15%
Laboratory#	20%
Total	100%

* Your final exam grade may be used to replace your lowest Exam grade with the following exceptions: 1) If you have a zero on an exam due to missing the exam without a valid excuse no grade may be replaced, including the zero. 2) If you missed an exam with an accepted excuse only the grade for the excused exam may be replaced.

#Consult your laboratory syllabus for grading details.

GRADING SCALE

A = 93 – 100	A- = 90 – 92	B+ = 87 – 89	B = 83 – 86	B- = 80 – 82	C+ = 77 – 79
C = 73 - 76	C- = 70 - 72	D+ = 67 - 69	D = 60 – 66	F = below 60 F	

Note: You must have a passing grade in both lecture and lab to pass the course. If you fail either the lecture or the lab you will receive an "F" in the course.

Final course grades will only be available in OPUS. Final exam grades will not be distributed.

Errors in grading:
Exams should be reviewed immediately upon return for grading or addition errors. If there appears to be an error, submit your request for a regrade **in writing** no later than three days after the exam was returned in class. The Regrade Request form is available in Blackboard.

HONOR CODE

It is expected that you will adhere to the Honor Code. It is expected that you will not cheat, contribute to or condone the cheating of others. You are therefore expected to submit your own best effort on all assignments. Exams will not be proctored unless it is believed that the Honor Code is being violated. Pens/pencils and a non-programmable calculator are the only tools you are allowed to bring to and use in exams (no cell phones). Unless otherwise specified, collaboration is not allowed in any assignment to be submitted – including laboratory reports. You may collect data in groups however you may not collaborate with other students when completing lab report sheets/formal summaries/reports.

CRITICISM/FEEDBACK

Criticism/feedback is given in a variety of ways – dependent on the type of assignment. Below is the key for criticism/feedback given on quizzes/exams.

CAL – calculation error
CON – inadequate understanding of concept
CVF – problems with conversion factor
FORM – incorrect formula or wrong use of formula
SFU – problems with significant figures and/or units

For essays/formal reports, criticism/feedback is given in the form of a grading rubric, which provides details on the grading of each area assessed.

"RULES OF ENGAGEMENT"

Expectations regarding class deportment and interpersonal interaction will be discussed on the first day of class. Below are a few general notes.

- You are expected to arrive to class on time and stay for the entire class period (no walking in and out of class unless you are sick).
- You are expected to be attentive and participate during class.
- Cell phones are not allowed in class. You will be asked to leave the class if you are caught texting.
- Laptops are only allowed in class if you have an e-textbook or it serves as your primary means of taking notes. You must request permission from me before bringing your laptop to class. If you are caught doing anything inappropriate (ie. not what is currently being done in class), this privilege will be revoked.
- You must be appropriately dressed for class and lab. No undergarments should be visible.

Q&A SESSIONS

A question and answer session will be conducted in the class session prior to each exam.

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LEARNLINK AND BLACKBOARD

Blackboard will be the primary means of communicating outside of class. It will also house supplementary course resources as well as assignments. You are also expected to read the class LearnLink conference (under Oxford Chemistry) regularly, as well as any subconferences within it.

AVAILABLE RESOURCES

- **Need help –** please come to office hours at the first sign of trouble. You should also attend the weekly SI sessions even if you think you have mastered the material.
- **Need more problems -** the textbook "Chemistry: A Molecular Approach" by Tro (including solutions manual) is available as a course reserve in the library (1 hr limit).

ADDITIONAL INFORMATION

Quiz and Exam keys will be posted on Blackboard. Exam keys are posted 24 hrs after the exam is returned in class. It is very important that you spend time reworking questions you had difficulty with before looking at the exam key. If you are still having difficulty after consulting the key – please see me for help. I will briefly review the exam in class one week after it is given.

COURSE SCHEDULE

Chap. 1
Chap. 2
Chap. 3
Chap. 4
Chap. 5
Chap. 6
Chap. 7
Chap. 8
Chap. 9
Chap. 24 (brief overview)
Chap. 10

* The learning objectives for each chapter is available in Blackboard.

The course schedule is subject to change. The sections to be covered in each exam will be announced in class.

Student work submitted as part of this course may be reviewed by Oxford College and Emory College faculty and staff for the purposes of improving instruction and enhancing Emory education.

PRELIMINARY HOMEWORK/ GRADED ASSIGNMENT:

- Read article on HOW TO PASS CHEMISTRY (BLACKBOARD under INFORMATION)
- Assignments in **TOOLS FOR ACADEMIC SUCCESS:** (BLACKBOARD under CONTENT)
- Syllabus quiz (BLACKBOARD under CONTENT)

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*TO BE COMPLETED BY THE SECOND WEEK OF CLASS (*SEPTEMBER 6th*)*

1) Sensory Preference Self-Test **BRING RESULTS TO CLASS ON FRIDAY, SEPTEMBER 7th**
2) Workshop on Time Management
3) Workshop on College Reading Strategies

TO BE COMPLETED BY THE THIRD WEEK OF CLASS (SEPTEMBER 13th)

4) Workshop on Concept Mapping
5) Workshop on Test Preparation
6) Workshop on Overcoming Test Anxiety

TENTATIVE LECTURE SCHEDULE

The topics covered and lecture schedule is subject to change, depending on the pace of the course.

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Date	Chapter
8/28	1
9/2	LABOR DAY
9/6	2
9/11	3
9/20	**Exam 1**
9/23	4
10/2	5
10/9	**Exam 2**
10/14	MID SEMESTER BREAK
10/16	6
10/18	***LAST DAY TO DROP***
10/25	7
11/4	8
11/8	**Exam 3**
11/11	9
11/22	10
12/6	**Exam 4**
12/9	**Last Day**
12/13	**Final Exam - Cumulative**

CHEMISTRY 141 – 10B LAB SCHEDULE
Fall 2013

Week	Experiment no.	Date	Experiment title
1	Introduction, Safety video	Sept. 3	
2	Exp. 1	Sept. 9 - 13	Precision of Mass Determination
3	Exp. 2	Sept. 16 – 20	Mass, Volume, and Density
4	Exp. 3	Sept. 23– 27	Chemical Properties
5	Exp. 4	Sept. 30 - Oct. 4	Production of a Pure Substance
6	Exp. 9	Oct. 7 – 11	Aqueous Reactions
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7	Exp. 7	Oct. 21 – 25	Gas Laws
8	Exp. 8	Oct. 28 – Nov. 1	Calorimetry
9	Exp. 5	Nov. 4 – 8	Titration I: Standardization of NaOH
10	Exp. 6	Nov. 11 – 15	Titration II: Acetic Acid in Vinegar
11	Exp. 10	Nov. 18 - 22	Spectroscopy
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12	Wrap-up	Dec. 2 – 6	

NOTE: The lab schedule is subject to change, depending on the pace of the course. Changes will be announced in class and posted to your class Blackboard site.