

## INFORMATION FOR CHEMISTRY 60 SECTIONS 5036/5037 INTRODUCTION TO GENERAL CHEMISTRY

**Prerequisite:** Math 115 with a minimum grade of "C" or appropriate score on placement assessment. High School Algebra I is no longer accepted as a prerequisite.

**Description:** This is a general basic chemistry 5-unit course with laboratory, emphasizing fundamental principles of inorganic and physical chemistry, nomenclature of inorganic compounds, ionic and covalent bonding, problem solving, gas laws and solutions. This course serves as preparation for Chemistry 101, and meets the IGETC and CSU general education requirements for physical science with laboratory. The course is designed primarily for students who have had little or no chemistry training. The course includes 3 hours of lecture and one 4-hour laboratory sessions per week and attendance for both lecture and lab is mandatory. It covers atomic structure, nomenclature, bonding, molecular geometry, chemical reactions, Stoichiometry, states of matter and related forces, gas laws, solution chemistry, quantum theory, periodic properties, colligative properties, and acid base concepts.

**Student Learning Outcomes:** By the end of this course you will be able to (1) Apply chemistry concepts to solving a variety of qualitative and quantitative chemical problems. (2) Work independently in the laboratory and communicate results in written lab reports. (3) Be prepared for transfer to a four-year institution with the skills needed to begin upper division coursework in chemistry.

**Course:** Chem. 60 **Lecture:** # 5036 & 5037, Tuesday/Thursday 5:15 – 6:40 pm, Room: SCI 132  
Chem. 60 **Lab # 5036** Tuesday/Thursday 6:55 – 9:00 pm, Room: SCI 301. Instructor – P. Mays  
Chem. 60 **Lab # 5037** Tuesday/Thursday 6:55 – 9:00 pm, Room: SCI 305. Instructor – V. Hymowitz

**Required Texts:** Introductory Chemistry by Nivaldo Tro 4<sup>th</sup> Edition (includes license for Mastering Chemistry)  
Laboratory Manual for Chemistry 60/68 (download from LACC website or from Mastering Chemistry)

**Required Materials:** Scientific calculator, Safety goggles, Laboratory Notebook with carbonless duplicate pages. The Lab Notebook may be purchased from the bookstore or from the Chemistry Stock Room

**Office Hours:** MW 3:15 – 4:00pm and T/Th 9:00 – 9:30pm SCI 324

**Contact:** [mayspj@lacitycollege.edu](mailto:mayspj@lacitycollege.edu) or [mayspj@gmail.com](mailto:mayspj@gmail.com). Any emails sent after 10:00pm will be answered the following day.

### Attendance:

Attendance will be taken during each class period. Regular attendance is absolutely mandatory in order to pass this course. The deadline to drop without a "W" is the last day of Week 2 of the semester, which is Sunday, **September 8<sup>th</sup>** for Fall 2013. If you must drop a course, drop before the specified deadline for dropping a class without a grade of "W." Dropping *after* Week 2 will result in a "W" on your transcript. Therefore, before the end of Week 2 you should carefully consider if you can reasonably manage this course with the other factors in your life (e.g. work, family, course load). **If you think you will not be able to complete this course with a C or better, drop by Sunday, September 8<sup>th</sup>.** The last day to drop with a "W" in the course is **Sunday November 17, 2013**. You cannot drop after this date; therefore a letter grade **must** be assigned.

LACC Catalog page 184: "Whenever students are absent more hours than the number of hours the class meets per week, the instructor may exclude them from class. To avoid being dropped from class, students should contact the instructor when they are absent for emergency reasons. Students are responsible for officially dropping a class that they stop attending." This equates to 3 absences in lecture and/or lab. Students who have not officially dropped this class and have stopped attending will be assigned a letter grade of "F". If you have any questions, please don't hesitate to talk to me. You may also see a counselor in the Counseling Center in AD 108.

### Academic Integrity

All students at LACC are expected to follow the rules of ethical conduct stated on pp. 178-179 in the Student Policies section of the Fall 2013 Schedule of Classes. The complete Fall 2013 Schedule of classes in PDF format is found at: <http://lacitycollege.edu/Schedule/Fall/Fall2012Complete.pdf>

## Students with Disabilities:

Students with a verified disability who may need a reasonable accommodation(s) for this class are encouraged to notify the instructor and contact the Office of Special Services (CH 109, 323-953-4000 ext 2270) as soon as possible. All information will remain confidential.

## Course Work and Grading Policy:

One grade will be assigned for Chem. 60 that includes both lecture work and laboratory work. Chemistry courses at LACC cannot be taken for Credit/No Credit, but you may audit the course. Grades will be assigned on the basis of overall percentage of total points earned in both the lecture and the laboratory. If you fail **either** the lecture or lab portion of the course, the highest grade you may earn is a "D".

**HOMEWORK:** Homework is an essential ingredient for success in chemistry. Homework provides the opportunity to practice using the concepts presented in class. The homework for this course is administered through the Mastering Chemistry web-based homework system. Mastering Chemistry is a web-based homework program published by Pearson. If you purchased the LACC custom version of the textbook, you also have the access code for Mastering Chemistry. If you did not purchase the LACC custom version of the textbook, you will need to purchase an access code from Pearson through the Mastering Chemistry website. To enroll as a student in Mastering Chemistry, go to <http://www.masteringchemistry.com>. At this point you are asked to enter your access code and course ID. **The course ID is MCMAYS2013FALL.** (If you do not have an access code, you can purchase one during the registration process.)

The Mastering Chemistry assignments include interactive tutorial assignments and electronic versions of selected **end of chapter problems from your text. Remember, the Mastering Chemistry assignments are required and are part of your course grade.** The difficulty levels of the tutorials and problems are varied. **Expect to spend an average of 3-4 hours per Mastering Chemistry assignment.**

There is a correlation between doing homework problems, understanding the course material, and doing well on exams. The more homework problems you make an honest effort at completing, better are your chances of doing well on the exams. Remember, the point of doing the homework is to improve your understanding of the material, not to practice for exams. Exam problems do not necessarily look exactly like homework problems. However, if you truly understand the material, then you should be able to reason through exam problems that look different from homework problems. If you are having trouble with the homework, please come to office hours.

Homework assignments are to be completed by the due date on-line using the Mastering Chemistry program. The access code comes with the textbook. If you are using an older text, you may buy the access code on-line or at the bookstore. Work completed after the posted due dates will get no points.

**QUIZZES:** There will be 9 quizzes, and each quiz is worth 15 points. Questions may be selected from either the topics covered in the lecture or in the laboratory experiments. There will be absolutely **NO MAKEUPS** for these quizzes. The lowest quiz score will be dropped at the end of the semester.

**EXAMS:** There will be 3 exams during the semester. You must bring your own charged calculator and Scantron 882-E with you for each exam; no borrowing or sharing is allowed. The exams are composed of short essay, multiple choice and word problems based on lecture notes and homework problems. Regular class attendance is mandatory to understand how to successfully complete the problems. **There are no make-up exams.** So don't miss. Scantrons may be purchased at the bookstore. You will need 4 Scantrons for this course.

**FINAL EXAM:** A comprehensive final exam will be given covering both the lecture and lab work. The final will be on **Thursday, December 12, 2013** from 5 – 7pm. The final is designed to incorporate most of the information and skills necessary to begin Chem. 101; it is **everything** you learned in Chem. 60 and more.

### NOTE:

**ANYONE FOUND CHEATING WILL RECEIVE AN "F" GRADE (NO POINTS) FOR THE EXAM OR QUIZ AND MAY BE RECOMMENDED TO THE DEAN OF STUDENTS FOR EXCLUSION.**

## LABORATORY SECTION:

Safety is of the utmost importance, you must always comply with the safety rules found in the SAFETY RULES AND REGULATIONS section of your lab manual. Failure to obey these rules will result in your dismissal from this class. Safety goggles are **REQUIRED** at all times in the lab unless otherwise stated by the instructor. If you have not acquired safety goggles by third week of class (Exp 14 on 9/12/2013) you may "rent" a pair from the Chemistry stockroom for a small fee or be asked to leave the lab. No credit will be given and no make up allowed if asked to leave the class. Attendance is also mandatory for the lab. You must be physically present in the lab and actually **performing** the experiments to acquire valuable laboratory experience. Please review the attendance section above and the LACC Catalog. If you miss more than 2 labs (8 hours) you may be dropped from the course.

\*\*\*\*A video will be shown and a test will be given on the first day covering safety issues. Although most of the information is common sense, it is imperative that everyone understands and complies with safety regulations or you will be asked to leave the class.

**LAB REPORTS:** Laboratory work is done individually – no partners – unless advised by the instructor. Students are expected to show some independent thinking in lab, and so instructor will not automatically answer every question, but rather lead the student to his own conclusions. Instructor will be more generous with help on WS problems. Lab experiments are due one or two periods after the scheduled lab. There little time to make up lost lab work, except in another section. Due to safety regulations we are strictly limited with lab space per student. Students must complete at least 90% of the lab work in order to receive a grade for the course other than F. Students are expected to set up the notebook (pre-lab) prior to coming to lab. This must include your name, the number and title of the experiment, the purpose, procedure and have the data table set up prior to starting class. Please consult the Laboratory Notebook Guidelines on the LACC Chemistry dept website: <http://faculty.lacitycollege.edu/boanta/department/dept%20expt/EXPT60.htm>. The notebooks will be initialed or stamped by the lab instructor at the beginning of each lab period. Points will be deducted for every section not completed before coming to class. It is important for you to know what you are doing in lab before coming to lab. Collect your data during class and record it in your lab notebook. Before you leave class, please turn in the stamped or initialed copy sheet with your data to the lab instructor. The final lab report, which includes your results/conclusion and post-lab questions are due the following lab period. Heavy penalties will be incurred for every day the lab report is late.

**LAB GRADING:** The report grade is based on any attendance (physically performing the experiment), correct answers to questions in the lab report and workshops and safety techniques exhibited during the lab throughout the semester.

The points for the course are broken down in the following manner:

Lecture			Laboratory		
Category	Approximate Contribution to Overall Course Grade		Category	Approximate Contribution to Overall Course Grade	
Homework: ~ 30 question/chapter	~ 9%	110 pts	Performance & Participation. Weekly Laboratory Reports (22 @ 15 pts)	~ 25%	330 pts
Quizzes 8 @ 15 pts	~ 9%	120 pts			
Midterm Exams Exam 1 @ 100 pts Exam 2 @ 120 pts Exam 3 @ 150 pts	~ 29%	370 pts	Workshops 12 @ 10 pts	~ 9%	120 pts
Final Exam	~ 19%	250 pts			
Total Contribution	~ 66%	850 pts total	Total Contribution	~34%	450 pts total
<b>TOTAL POINTS POSSIBLE 100% (1300 pts tentative grand total)</b>					

Your final letter grade will be assigned based on the total percentage as follows:

**A: 100 – 85%      B: 84 - 70%      C: 69 - 60%      D: 59 - 50%      F: below 50%**  
**(1105 pts or higher) (1104 – 910 pts) (909 – 780 pts) (779 – 650 pts) (649 pts or less)**  
**If you are interested in your class standing, then use the above scale.**

## LA CITY COLLEGE Fall 2013 Semester Schedule for CHEM 60 Introductory Chemistry Sections 5036/5037- MAYS

The instructor reserves the right to change the following topics, assignments and due dates if necessary. Check the course announcements weekly for any such changes.

Wk #	Lec #	Date	Lecture	Laboratory
1	1	08/27 (Tue)	Course Introduction Chapter 1 The Study of Change	Math review Mastering Chemistry
	2	08/29 (Thurs)	Chapter 2 – Measurement & Problem Solving	Workshops 1A and 1B (due 9/3) Exp 1(S) Solids (due 9/5)
2	3	09/03 (Tue)	<b>Quiz 1 – Chapter 1 &amp; 2</b> Chapter 3 – Matter & Energy	Laboratory Safety Video Locker Check-in
	4	09/05 (Thurs)	Chapter 3 (Continued)	Exp 1 (L) Liquids (due 9/12)
3	5	09/10 (Tue)	<b>Quiz 2 – Chapter 3</b> Chapter 4 – Atoms & Elements	Exp 2 Graphing & Measurements (due 9/17)
	6	09/12 (Thurs)	Chapter 4 (Continued)	Exp 14 Calorimetry (due 9/19) Workshop 2 (due 9/12)
4	7	09/17 (Tue)	<b>Exam 1 (Ch 1 – 4)</b>	Exp 4 Separation of a mixture (due 9/24) Workshop 3 (due 9/19)
	8	09/19 (Thurs)	Chapter 5 – Molecules & Compounds	
5	9	09/24 (Tues)	Chapter 6 – Chemical Composition	Exp 6 Identification of Ions (due 10/01) Workshop 5 (due 9/26)
	10	09/26 (Thurs)	Chapter 6 (Continued)	
6	11	10/01 (Tue)	<b>Quiz 3 – Chapter 5 &amp; 6</b> Chapter 6 (Continued)	Exp 5 Hydrates (due 10/10) Workshop 4 (due 10/8)
	12	10/03 (Thurs)	Chapter 7 Chemical Reactions	
7	13	10/08 (Tue)	<b>Quiz 4 – Chapter 7</b> Chapter 8 Quantities in Chemical Reactions	Exp 10 SR Reactions (due 10/15) Exp 11 DR Reactions (due 10/17) Workshop 6 (due 10/10)
	14	10/10 (Thurs)	Chapter 8 (Continued)	
8	15	10/15 (Tue)	<b>Exam 2 (Ch 5 - 8)</b>	Exp 12 Copper in Solution (due 10/22) Exp 21/WS 10 (due 11/5)
	16	10/17 (Thurs)	Chapter 9 Electrons in Atoms & the Periodic Table	
9	17	10/22 (Tue)	<b>Quiz 5 – Chapter 9</b> Chapter 10 Chemical Bonding	Exp 15 Molecular Models (due 10/24) Exp 3 Stoichiometry Synthesizing Chalk (due 10/31)
	18	10/24 (Thurs)	Chapter 10 (Continued)	
10	19	10/29 (Tue)	<b>Quiz 6 – Chapter 10</b> Chapter 11 Gases	Exp 16 Boyles Law (due 11/05) Exp 17 Charles Law (due 11/07)
	20	10/31 (Thurs)	Chapter 11 (Continued)	Workshop 7 (due 10/31)
11	21	11/05 (Tue)	<b>Quiz 7 – Chapter 11</b> Chapter 11 (Continued)	Exp 18 Ideal Gas Law (due 11/12) Exp 19 Gas Law Gas Stoichiometry (due 11/14)
	22	11/07 (Thurs)	Chapter 12 Liquids, Solids and Intermolecular Forces	Workshop 8 (due 11/7)
12	23	11/12 (Tue)	<b>Tuesday: Exam 3 (Ch 9 – 11)</b>	Exp E Spectrophotometry (due 11/19) Workshop 15 (due 11/12)
	24	11/14 (Thurs)	Chapter 12 (Continued)	

13	25	11/19 (Tue)	<b>Quiz 8 Chapter 12</b> Chapter 13 Solutions	Exp 7 % O <sub>2</sub> in KClO <sub>3</sub> (due 11/27) Workshop Solutions (handout) (due 11/21)
	26	11/21 (Thurs)	Chapter 13 (Continued)	
14	27	11/26 (Tue)	Chapter 13 (Continued)	Make-up day
	<i>Holiday</i>	<i>11/28</i> <i>(Thurs)</i>	<i>Thanksgiving Holiday</i>	
15	29	12/03 (Tue)	<b>Quiz 9 Chapter 13</b> Chapter 14 Acids & Bases	Exp 17 Acid/Base (due 12/10) Workshop 9 (due 12/05) Locker Check out
	30	12/05 (Thurs)	Chapter 14 (Continued)	
16	31	12/10 (Tue)	Chapter 14 (Continued) Final Review	
	32	12/12 (Thurs)	<b>Lecture Final Exam</b> <b>December 12, 2013</b>	