**SYLLABUS**

**INTRODUCTION TO GENERAL CHEMISTRY**

**CHM 1025C CRN 12857 - WEST CAMPUS FALL SEMESTER 2016**

**INSTRUCTOR:** Robert J. Borders Ph.D. OFFICE: AHS-207

**LECTURE:** Monday/Wednesday 1000 -- 1115 WC AHS room 210

**LABORATORY:** Monday 1130 -- 1415 WC AHS room 304

**OFFICE HOURS:** Monday & Wednesday 0845 – 1000

Monday1600 – 1700

Tuesday & Thursday 0900 – 1400

 Friday by appointment or Virtual 0900 -- 1200

 **PHONE:** My office (407) 582 - 1905 or my cell (407) 902-3346 or leave a

message with the Chemistry office (407) 582-1407

**E-MAIL:** rborders2@ valenciacollege.edu

**Welcome to my class!** I would like to share with you my enthusiasm for chemistry and anticipate that you are excited to learn about it. Many call it the central science. You reap many benefits from its advances every day through the use of cosmetics, medicines, plastics, energy sources, and DNA fingerprinting, just to name a few. Chemistry has had a tremendous impact in shaping our civilization and our lives. The study of chemistry can enrich your life by allowing you to have a better understanding of your body, mind, environment, and the universe. Please feel free to visit me during my office hours. You can also reach me by phone or email.

**PREREQUISITE:** One year of high school algebra or minimum grade of C in MAT 0020C or

MAT 0024C.

**COURSE DESCRIPTION:**

This one semester course, with 4-sememster hours of letter grade credit, is designed to prepare students without high school chemistry or with inadequate backgrounds in chemistry for CHM 1045C. Modern chemical theories are used to develop an understanding of the fundamentals of inorganic chemistry and their applications. Some of the topics that we will cover include atomic theory, periodic arrangements of the elements, formation of molecules and reactions, compound nomenclature, quantitative relationships, energy, and gas laws. Emphasis is on quantitative relationships used in dimensional analysis to solve problems. The laboratory time will illustrate principles discussed in the classroom and is an integral part of this course.

**TEXT BOOKS & MATERIALS REQUIRED FOR THIS COURSE:**

**MANDATORY TEXT:** INTRODUCTORY CHEMISTRY, Concepts and Critical Thinking. Custom Edition for Valencia College, by Charles H Corwin ISBN: 13: 978-1-269-39146-7 Seventh edition.

2. **MANDATORY LABORATORY MANUAL:** INTRODUCTORY CHEMISTRY

 Concepts an Critical Thinking, by C. H. Corbin ISBN978-1-269-73169-8 **MUST BE**

 **NEW LAB BOOK WITH NO MISSING PAGES**

 3. **Scientific Calculator**: Bring to every class and laboratory.

 4. **Mandatory Safety Goggles:** These are required for all laboratories. They are available

 in the laboratory. You will not be allowed to take part in the laboratory without safety

 glasses. You may purchase your own if desired in the book store..

**STUDY AIDS:** The campus bookstore has chemistry flashcards, and other study aids. Chemistry tutors are available for walk-in assistance in the Math Lab.

There are CDs on reserve in the library computer lab with tutorials for most major topics. For a complete list, go the URL http://faculty.valenciacc.edu/tmellone/includes/cyberedl.htm#Top

The Chemistry Tutor CD - can be checked out (taken home), at the library reserve desk. It can be checked out for four days. The CD is also available in the library first floor computer lab for use in the library. This CD has interactive questions and very short tutorials on a wide range of chemistry topics. If you like the CD, you can purchase it at the Bookstore.

**BLACKBOARD:**

We will use **OUTLOOK** for e-mail, We will use **BLACKBOARD** which is an Internet management program for class. Here you will find class outlines, email addresses to communicate with me and other students in your class, useful links, grades, and announcements regarding changes in the class calendar, among other things.

**WITHDRAWALS DEADLINE:**

Per Valencia Policy 4-07 (Academic Progress, Course Attendance and Grades, and

Withdrawals), a student who withdraws from class before the withdrawal deadline *of* will receive a grade of "W." A student is not permitted to withdraw after the withdrawal deadline. A faculty member MAY withdraw a student up to the beginning of the final exam period for violation of the class attendance policy. A student who is withdrawn by faculty for violation of the class attendance policy will receive a grade of "W." Any student who withdraws or is withdrawn from a class during a third or subsequent attempt in the same course will be assigned a grade of "F." For a complete policy and procedure overview on Valencia Policy 4-07 please go to: <http://valenciacc.edu/generalcounsel/policydetail.cfm?RecordID=75>.

**IMPORTANT DEADLINES:**

 Drop / Refund Deadline 9 Sep 2016

 Withdrawal Deadline for a "W" grade 11 Nov 2016

**ATTENDANCE POLICY: ATTENDANCE IS ESSENTIAL FOR SUCCESS!**

**ATTENDANCE TO ALL LECTURES AND LABORATORIES IS MANDATORY.** Attendance will be taken every class. **YOU must initial the attendance sheet provided,** and if you arrive late it is **your** responsibility to notify the professor **after** class and initial the class attendance sheet. More than two absences from class will be considered excessive, and will negatively affect your grade. Missing more than 3 class periods, for any reason, will be considered sufficient reason for you to be withdrawn from the class. Students are responsible for allwork, announcements, handouts and material missed during an absence. **It is your responsibility to come to class on time and prepared.**

**EVALUATION:**

1. Exams: Five (5) exams, each worth 100 points will be given. Each exam will usually cover three chapters. **There are no make-up exams.**
2. Quizzes: 15 quizzes will be given. Each one will be worth 20 points. Unannounced quizzes, (5 to 20 points), will vary on the points for each quiz, but will add to your total quiz points.
3. Homework: Homework will be assigned, graded, then returned and will be part of your overall grade calculation. It is your responsibility to do all assigned problems showing **ALL WORK** **AS WELL AS THE ANSWER**. Homework will be accepted only at the due date, Homework, test and quiz problems will be very much alike. Studying together with a classmate is an extremely effective method of learning the material.
4. Final Exam: The final exam will be worth 200 points. The final exam will be a comprehensive test of material covered throughout the semester. If you miss the final exam your grade will be an **“F”.**

5. There are **NO** **MAKE-UP TESTS, QUIZZES OR LABORATORIES**. **ALL**

**MISSED QUIZZES AND LABORATORIES ARE GIVEN A GRADE OF**

**ZERO.**

ALL Tests and Quizzes are given using Blackboard. **LOCKDOWN** **BROWSER** **will be** **REQUIRED, for all tests and quizzes.**  See the Schedule for tentative dates.. They will usually be multiple choice questions. Specific details and instructions will be given in class.

**LABORATORY WORK:**

**LABORATORIES; All laboratories will start 15 minutes after the scheduled lab time. Students who are 15 minutes late may not be allowed to participate in the laboratory and will receive a grade of zero.** Twelve labs are scheduled. You must read each scheduled lab prior to the day of the lab. **A pre-lab report for each experiment is due prior to the start of each scheduled lab. The experimental data and post-lab questions are due at the end of each lab.**

**PRE-LABORATORY REPORT:** This is an individual report. This consists of reading the experimental procedure and answering the pre-laboratory questions. **IN ADDITION** you must write a short summary of the procedures to be completed in the laboratory. Read the required Technique sections and briefly summarize them. This summary should contain the key steps for the experiment. (5) points. Each pre-lab assignment is worth 25 total points.The procedure summary must be stapled to the back of the pre-printed pre-lab report. The Pre-laboratory Assignment must be placed in the labeled tray when you enter the lab. **Reports handed in after the first 5 minutes of the lab period may lose 5 points for being late. Pre-lab quizzes may be given for any laboratory. NOTE:** This pre-lab report is a separate report which is part of the experiment being conducted, in the laboratory, and will be recorded as a separate grade.

**LABORATORY REPORT:** This consists of filling out the Report Data Sheet for the experiment and answering the post laboratory questions. **The post laboratory questions must be stapled to the back of the Laboratory** Reports are due at the end of each laboratory (25 points), unless otherwise stated. **Only two names are allowed on the report without permission of the instructor**. **YOUR NAMES CLASS NUMBER AND DATE MUST BE CLEARLY WRITTEN ON EACH PAGE. No name, No Grade.** Make sure you place it in the report tray prior to leaving the laboratory. **NOTE:** This report is a separate grade that will be recorded for each of the students listed on the report.

**GENERAL REQUIREMENTS:** Do not hand in loose pages, whenever handing something in that has more than one page, staple them together. You will lose points if not stapled (folding corners or using paperclips is not acceptable).

**LABORATORY SAFETY RULES:** The departmental safety rules, explained during the first lab meeting, must be followed when working in the laboratory. Safety is our top priority. These rules will be enforced at all times. RESULTS for non-compliance are;

 1st minor infraction: verbal reminder

 2nd minor infraction: 5 points taken away from laboratory report

 3rd minor infraction or 1st major infraction: leave laboratory, Grade will be zero.

**SAFETY GOGGLES ARE MANDATORY.** They must be worn at all times while in the lab.

**NO EATING OR DRINKING IS PERMITTED IN THE LAB.** Students not following these rules **WILL BE ASKED TO LEAVE THE LAB** and will receive a grade of **ZERO** for the lab. For **SAFETY** reasons, **no hats, shorts, open toe shoes, or high heels** are to be worn in the lab. Backpacks and coats will be hung in the appropriate area.

**MAKEUP POLICY:** There are **NO** make-up tests, quizzes or laboratories. **ALL** missed tests, quizzes and laboratories are given a grade of **ZERO.**  The lowest **quiz**, **test, prelab** and **laboratory** grade will be dropped. If you miss a quiz, test, prelab or laboratory this is the one that is dropped.

**GRADE DISTRIBUTION:**  “Tentative”

**Activity Points % of Grd T Points Grading Scale**

Exams (5 x 100) 400 20 80 A 290 - 261

Quizzes (15 x 20 plus unscheduled) 300 10 30 B 260 - 232

Homework (15 x 20) 300 5 15 C 231 - 203

Pre-Lab Reports (12 x 25) 300 10 30 D 202 - 174

Laboratory Reports (12 x 25) 300 25 75 F 173 or less

Final Exam 200 30 60

**TENTATIVE** **TOTAL 1800** **100%** **290**

Final grades are determined using the above scale, **based on the percentage of points earned.** Overall cumulative average for the final grade will be rounded up or down to a two-digit score when the average results in a score of XX.x. For example, an 260.5 will result in a score of 261 but an 260.4 will result in a score of 260, One is an A and the other a B. Remember there must be cut-offs. I would feel badly for any student that ended up with an 89.4%, but would have to follow this guideline.

 **YOU NEED TO KEEP UP WITH ALL YOUR ASSIGNMENTS! LAST MINUTE CRAMMING DOES NOT WORK IN CHEMISTRY.**

**ACADEMIC HONESTY**: Academic dishonesty is not permitted. The minimum penalty is a zero for the first incident. While I encourage students to help each other and study with each other, I consider classrooms, exams and quizzes to be an opportunity for the individual to stand out. Please do not plagiarize and claim someone else's work as your own (do not copy during quizzes or exams). Violation of the VCC policy on cheating can result in failure on the assignment, the course, or your active student status.

**CLASSROOM CONDUCT:** The classroom is an area where I encourage your active contributory participation and to ask questions when confused about material covered in class or in the text. Disruptive behavior detracts from the learning experience. If you are disruptive you will be asked to leave the classroom. It is discourteous to your fellow classmates. EVERONE has the basic right to learn and succeed. PLEASE respect others as you would like them to respect you. Included (but not inclusive): (1) Try not be disruptive by being tardy, leaving and returning to class unnecessarily prior to dismissal; (2) Do not conduct side-discussions during class: (3) State or imply acts or threats of violence against any individual; (4) Use of indecent language or gestures; (5) use any music device or telecommunications devices, i.e. cell phones or pagers.

**AS A COURTESY AND TO AVOID CLASS DISRUPTIONS, PLEASE ENSURE YOUR CELL PHONES, BEEPERS OR OTHER ELECTRONIC DEVICES ARE TURNED OFF**

**THE KEY TO PASSING AND ENJOYING CHEMISTRY IS TO DO IT EVERY DAY. ALOCATE AT LEAST AN HOUR A DAY TO DO CHEMISTRY, OUTSIDE OF SCHEDULED CLASS TIME.**

 **REQUESTS FOR ACCOMMODATIONS:** Students with disabilities who qualify for academic accommodation must provide a letter from the Office for Students with Disabilities (OSD: West Campus, SSB, 103, 403-582-1523) and discuss their specific needs with the professor, preferably during the first two weeks of class.

**MINIMUM RECOMMENDED STUDY REQUIREMENTS:** This course is a CUMULATIVE learning experience, therefore, it is important that you:

1. Dedicate a minimum of six plus hours of study to the lecture course per week.

2. Preview material to be covered in class by reading ahead in the book.

3. Come to class prepared and take a good set of notes on what is covered in class.

4. Be prepared to be an active participant in class discussions and ask questions. Review lecture

 notes, and assigned reading.

 5. It is essential that you work suggested chapter questions and problems. Attempt every

 problem; mastery of chemistry requires much practice.

 6. Please seek help as soon as possible if you are having difficulty because this course will be

 taught at a rapid pace and most new principles rely on mastery of previous material. You may

 contact me any time you have a question about the material covered.

**VALENCIA STUDENT COMPETENCIES:**

Valencia faculties have defined four interrelated competencies (Value, Think, Communicate, & Act) that prepare students to succeed in the world community. These competencies are outlined in the Course Catalog. In this class, through classroom lecture and discussions, group lab work, and other learning activities, you will further develop mastery of these core competencies.

**Think.** Think clearly, critically, and creatively. You will analyze data and ideas, employ formulas

and procedures, and draw and revise conclusions.

**Value.** Make reasoned value judgments and responsible commitments. You will recognize relevant

 information and manage your work time.

**Communicate**. Identify your own strengths and need for improvement as a communicator. You will

 exchange ideas and information with others.

**Act**. Act purposefully, reflectively, and responsibly. You will set goals and solve problems,

 individually and in groups.

“**TENATIVE” CHM 1025C SYLLABUS CRN 12857 FALL SEMESTER 2016**

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| **Date** | **Lab’s** | **Study/Lecture Chapters** | **Quiz** |
| 29 Aug | Lab Intro and Safety | Syllabus /Chapters 1, PPS |  |
| 31 Aug  |  | PPS and Chapter 2 | Quiz 1 & 2  |
| 5 Sep  | HOLIDAY  |  |  |
| 7 Sep |  | Chapters 2  |  |
| 12 Sep  | Exp # 2 Instrument Meas | Chapters 3 Review Chaps 1-3  | Quiz 3 |
| 14 Sep |  |  Chapter 4 T**EST 1 CHP’S 1, PPS, 2, & 3** |  |
| 19 Sep | Exp # 5 Phy & Chem Prop (parts B & D) | Chapters 5  | Quiz 4  |
| 21 Sep |  |  Chapters 6  | Quiz 5 |
| 26 Sep | Exp # 7 Families of Elements | Chapter 7 Rev Chps 4 – 6**TEST 2 CHP’S 4, 5, & 6**  | Quiz 6 & 7  |
| 28 Sep |  | Chapters 8  | Quiz 8  |
| 3 Oct | Exp # 8 Ident of Cations | Chapter 9  | Quiz 9 |
| 5 Oct |  | Chapter 10 Review Chap’s 7, 8, 9  **TEST 3 CHP’S 7, 8, 9**   |  |
| 10 Oct | Exp # 9 Ident Anions  | Chapters 10 | Quiz 10 |
| 12 Oct |  | Chapters 11 **MID-TERM TEST CHP’S 1 – 9** | Quiz 11 |
| 17 Oct |

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| Exp # 10 Analysis of a Penny Parts B - E only |

 | Chapter 12  |  |
| 19 Oct |  | Chapter 14  | Quiz 12 |
| 24 Oct | Exp # 12 Empirical Form of a Compound | Review Chapters 10, 11, 12**TEST 4** **CHP’S 10, 11, 12**  | Quiz 14 |
| 26 Oct  |  | Chapter 14 |  |
| 31 Oct | Exp # 15 Prec Ca3 PO4 | Chapter 14 |  |
| 2 Nov |  | Chapter 15 | Quiz 14 |
| 7 Nov  | Exp # 16 Gen Hyd Gas | Chapter 16 | Quiz 15 |
| 9 Nov |  | Chapter 16 |  |
| 14 Nov | Exp # 18 Molecular Mod | Chapter 17 | Quiz 16  |
| 16 Nov |  | Chapter 17 |  |
| 21 Nov  | **Class Day**  | Rev 13, 14, 17 **TEST 5 CHP’S 13, 14, 17** | Quiz 17 |
| 23 Nov | **THANKSGIVIING**  | **BREAK** |  |
| 28 Nov  | Exp # 20 Analysis of Vinegar Part B | Chapter 18 |  |
| 30 Nov |  | Chapter 18 | Quiz 18 |
| 5 Dec  | **Lab Practical**  |  |  |
| 7 Dec |  | Review your choice of subject |  |
| 12 Dec | **FINALS WEEK** |  |  |

 NOTE: The instructor reserves the right to add, subtract or change this schedule at any time. Any change will be in the best interest of the students and the completion of course objectives.