

**INDIAN RIVER STATE COLLEGE  
GENERAL CHEMISTRY I  
FALL SEMESTER 2014**

**Course Prefix:** CHM 1045

**Instructor:** Mr. Michael P. Jones

**Office:** Science Center (Main campus), Room N-307

**Telephone:** (772) 462-7855

**E-mail Address:** mjones@irsc.edu

**Office Hours:** Available During Posted Hours

**Additional Hours Available by Appointment**

**Lecture:** MW 9:30-10:45 A.M.

**Required Text:** *Chemistry: The Molecular Nature of Matter, 7<sup>th</sup> edition*, by Jespersen, Brady, & Hyslop

**Additional Requirement:** Scientific Calculator; must have scientific notation (EE or EXP key) and common log (LOG key) and natural log (LN key) capability.

**Learning Outcome:** Upon completion of this course, the student should be able to apply critical thinking through problem solving in chemistry

**Course Description:** CHM 1045 is the first semester of a two-course sequence covering general chemistry. This course is designed for students pursuing careers in the sciences or who need a more rigorous presentation of chemical concepts than is offered in an introductory course. This course involves the study of the principles of chemistry including atomic and molecular structure, stoichiometry, chemical bonding, thermochemistry, liquids, solids and the properties of gases. Since there is an extensive use of algebra, MAC 1102 (Basic College Algebra) is a prerequisite. In addition, chemistry is a Laboratory science and CHM 1045L is a corequisite for CHM 1045.

**Attendance:** You are **responsible** for all material covered in lecture. For this reason attendance at all lectures is expected. Absences will lower your comprehension of the material and could be a major contributor to a difficulty with the course material. Attendance will be taken during each class period. Attendance is mandatory if indicated by your financial aid or granting agency.

**Class Conduct:** Classes will begin and end on time. To minimize disruptions to others, students must be on time and plan to stay until class is dismissed. A student will be allowed three tardies. Each subsequent time a student is late will result in a three percentage point deduction from the next exam.

**Cell Phone Usage:** All cell phones must be set on silent or off during the class period. Any student who uses a cell phone to make or answer a call, or send and read text messages or emails, **other than IRSC emergency messages** during class time may be asked to leave and may be considered absent for that class. No student has the right to disturb the teaching and learning process.

**Cheating/Plagiarism:** Anyone caught cheating or plagiarizing will get an immediate F for the course and will be reported to the Vice President of Student Affairs.

**Withdrawal from the Course:** The last day to withdraw from the course with a grade of “W” is November 7. After this date, an instructor’s withdrawal will only be given for extraordinary circumstances (illness, military commitment, etc.) Please note that **a failing grade is not considered sufficient reason for an instructor’s withdrawal.**

**Grades:** Determination of the final grade for the course will be based on hour exams, online assignment, and a final exam The point distribution will be as follows:

Online assignments	10.0%
Exams (best 3)	67.5%
Final exam	22.5%

The final letter grade will be based on the following percentage scale:

A : 90-100      B: 80-89      C: 70-79      D: 60-69      F: 59 and below

**Hour Exams:** There will be four one-hour exams given as shown on the schedule. The lowest of the four exams will be dropped. **There will be no make-up exams.**

**NOTE: The dropped score is in case you get ill on the test day or are unable to take the exam for any other reason. Any student who is more than ten minutes late for the exam on exam day will not be allowed to take the exam.**

**Homework Problems:** On the last page of your syllabus, I listed a set of suggested homework problems at the end of each chapter. These problems are not collected or graded. There will be some online assignments provided by WileyPlus software for this semester.

**Final Exam:** A unit final exam will be given at the end of the semester, covering material during the second half of the semester. **The final exam cannot be made up.**

**Accessibility Statement:** In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, professional disability specialists and support staff at the Student Disability services (SDS) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities. IRSC offers many disability resources at on-campus labs. Students who wish to request an accommodation for a documented disability should contact the SDS at 772-462-7782 or 772-462-7808.

### **Non-Discrimination and Non-Harassment Policy**

Indian River State College is committed to maintaining a fair and respectful employment and educational environment. In accordance with federal, state and local equal opportunity laws, Indian River State College prohibits discrimination on the basis of race, color, national origin, ethnicity, sex, religion, age, disability, sexual orientation, marital status, veteran status, or genetic information.

## TENTATIVE LECTURE SCHEDULE

<b><u>Chapter</u></b>	<b><u>Subject</u></b>
0	A Very Brief History of Chemistry
1	Scientific Measurements
2	Elements, Compounds, and the Periodic Table
3	The Mole and Stoichiometry
4	Molecular View of Reactions in Aqueous Solutions
5	Oxidation-reduction Reactions
6	Energy and Chemical Change
10	Properties of Gases
7	The Quantum Mechanical Atom
8	The Basics of Chemical Bonding
9	Theories of Bonding and Structure

## EXAM SCHEDULE

<b>Exam</b>	<b>Date</b>
Exam #1	Sept 17
Exam #2	Oct 8
Exam #3	Oct 29
Exam #4	Nov 24
Final Exam	Dec 10

## SUGGESTED QUESTIONS & PROBLEMS

<b>Chapter</b>	<b>Questions/Problems</b>
0	16, 18, 19, 24, 26-28, 30, 33, 35, 37, 41
1	2, 3, 5-9, 11, 13, 15-23, 26-28, 31, 33, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 67, 73, 75, 77
2	2, 8-13, 26, 19, 21, 28-30, 32, 33, 36, 38, 40, 43, 44, 47-49, 63, 66, 67, 69, 71, 73, 75, 77, 79, 81, 83, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115
3	1,5, 7, 8, 12, 14, 19-21, 27, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 59, 63, 65, 69, 71, 75, 81, 85, 87, 89, 91, 93, 97, 99, 101, 103, 113, 115, 117, 119, 121, 127, 129, 131, 133, 135
4	1, 2, 4, 7, 8, 9, 13, 15, 17, 34, 35, 43, 45, 47, 49, 51, 53, 57, 61,63, 67, 69, 71, 79, 81, 85, 87, 97, 103, 105, 107, 109, 111, 113, 115, 123, 125, 127, 130, 135, 137
5	1, 2, 6, 8, 10, 11, 13, 15, 17, 19, 29, 31, 33, 35, 39, 41, 43, 45, 47, 57, 65, 77, 79
6	1, 3, 7, 11, 17, 22, 27, 31, 37, 42, 43, 51, 53, 55, 57, 59, 61, 63,81, 83, 85, 91
7	3, 6, 7, 11, 17, 31, 43, 44, 48, 63, 79, 81, 83, 85, 93, 95, 97, 99, 101, 105, 111, 117, 119, 121, 125, 133, 135, 137
8	3, 7, 14, 15, 73, 75, 77, 81, 83, 95, 97, 99, 101, 103
9	1-3, 7, 16, 73, 75, 77, 85, 87, 89, 105, 107
10	11, 15, 16, 23, 35, 45, 47, 49, 51, 53, 55, 63, 65, 67, 69, 71, 73, 75, 81, 91