

**INDIAN RIVER STATE COLLEGE**  
**GENERAL CHEMISTRY I**  
**Fall 2016**  
**MUELLER CAMPUS**

**Course Prefix:** CHM 1045 (Ref. Num. 219034)

**Instructor:** Dr. Larisa Eads

**Office:** Science Center, N-313

**Telephone:** 772-462-7888

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**Lecture:** F, 9:00 AM- 11:30 AM, D-136

**Office Hours:** Available During Posted Office Hours.

**Required Text:** *Chemistry: The Molecular Nature of Matter*, 7th Edition, Jespersen, Brady, Hyslop. Also Wiley PLUS. You will need a registration code to access Wiley PLUS on Blackboard.

**Additional Available Text:** *Chemistry: The Molecular Nature of Matter*, 7<sup>th</sup> Edition, *Student Solutions Manual: Duane Swank*.

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

**Note: If a programmable calculator is used on the exam, the memory must be cleared by the instructor prior to the start of the exam.**

**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.

Though this is a chemistry course, there is extensive use of algebra, therefore MAC 1033 (Intermediate Algebra) is a prerequisite. Additionally, as chemistry is a lab science, CHM 1045L (General Chemistry I Lab) is a corequisite for CHM 1045.

**Learning Objectives:** Using the scientific method, critically analyze and evaluate scientific data and utilize analytical skills to solve problems relevant to chemistry.

- Use different systems of measurement and be able to convert between the systems.
- Use the periodic table to classify the elements as well as determine various properties and characteristics of the elements.
- Describe the bonding and structure of compounds.
- Describe the basic properties of acids and bases.
- Write balanced chemical equations.
- Predict the products of combustion, metathesis, single-replacement, and acid/base reactions.
- Explain the behavior of gases in terms of gas laws and kinetic molecular theory.
- Perform calculations involving enthalpy and energy changes associated with physical and chemical processes.

**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. If an early departure is necessary, inform the instructor before class. 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. **ALL Cell phones, pagers, etc. MUST BE PLACED ON SILENCE OR VIBRATE MODE prior to the start of class. Use of a cell phone is not permitted during the lecture period (this includes stepping outside of the classroom to use the phone.)**

**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 “W” is **Oct. 31**. 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. Before withdrawal, check with Financial Aid. Occasionally, when a student attempts to withdraw from the course, the student is not withdrawn, but in fact remains in the course. Therefore, if a student withdraws from the course, they need to contact the instructor within two days of**

**withdrawing to confirm that the withdrawal did in fact get posted. If the student does not contact the instructor and receive confirmation that the withdrawal was posted, then at the end of the semester, if the student finds they are still registered in the course, the instructor will not issue an instructor's withdrawal. If the student receives an Incomplete grade, the student needs an incomplete form signed by the instructor.**

**Grades:** Determination of the final grade for the course will be based on 4 unit exams comprehensive final exam and Wiley PLUS assignments. The distribution will be as follows:

Unit Exams	67.5%
Final Exam	22.5%
Wiley Plus assignments	10%

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

A	90-100
B	80-89
C	70-79
D	60-69
F	<60

**Unit Exams:** There will be unit exams given as shown on the schedule. The Wiley PLUS assignments schedule is on Blackboard. The lowest of the 4 unit 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. Students must be on time for exams. Any student more than 10 min. late will not be allowed to take the exam.**

**Homework Problems:** At the end of each chapter I will recommend that you work certain problems. These problems are not collected or graded. Tutoring is available at the **Academic Support Center, 772-226-2508, A-114. Also, online tutoring, Smarthinking.com.**

**Final Exam:** The final exam will be given on the last day of class meeting. **The final exam cannot be made up.**

**Note:**

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, age disability, sexual orientation, marital status, veteran status, or genetic information.

**Statement Concerning Student Issues.** If you are experiencing difficulty in your course, your first obligation is to work directly with your instructor to resolve the issue. If you unable to settle your concerns with the assistance of your instructor, you can contact the Department of Physical Science, Chair Mr. Michael Jones, phone: 772-462-7855, E-mail: [mjones@irsc.edu](mailto:mjones@irsc.edu), who will assist you or advice you about contacting the Assistant Dean of Mathematics, Natural Sciences and Performing Arts, Dr. Paul Horton, phone: 772-462-7520, E-mail: [phorton@irsc.edu](mailto:phorton@irsc.edu) or Vice President of Academic Affairs, Ed. D. Marta Cronin, phone: 772-462-4702, E –mail: [mcronin@irsc.edu](mailto:mcronin@irsc.edu).

## **TENTATIVE LECTURE SCHEDULE**

(We will generally spend between two and four lectures on each chapter.)

<u>Chapter</u>	<u>Subject</u>
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 Changes
7	The Quantum Mechanical Atom
8	The Basics of Chemical Bonding
9	Theories of Bonding and Structure
10	Properties of Gases

### **Schedule Exam**

**Ex. 1 September 9 , Ex. 2 September 30,**

**Ex. 3 October 21, Ex. 4 November 18.**

**Final Exam: Dec. 2**

