IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	**Fall 2025**	Instructor Name:	**Dr. Omar Alshykhly**
Course Title & #:	**Chemistry 100 Introduction to Chemistry**	Email:	**Omar.alshykhly@imperial.edu**
CRN #:	**11444**	Webpage (optional):	
Classroom:	**2715**	Office #:	**2773**
Class Dates:	**08/11/25 – 12/06/2025**	Office Hours:	
Class Days:	**W**	Office Phone #:	**(760) 355-6298**
Class Times:	02:40 pm – 05:50 pm	Emergency Contact:	**Department Secretary (760) 355-6155**
Units:	4	Class Format/Modality:	Hybrid

Course Description

Elementary principles of general inorganic chemistry with an introduction to organic and biochemistry. Previous science background is recommended but not required. This course is designed for non-science majors and students who need only a one-semester general chemistry course, and also for students entering a paramedical and allied health fields, and industrial applications such as power plants. This course will satisfy the prerequisite for CHEM 200. (CSU)(UC credit limited. See a counselor.) Prerequisite: MATH 091 or MATH 090 with a grade of "C" or better.

Course Prerequisite(s) and/or Corequisite(s)

Prerequisite: MATH 091 or MATH 090 with a grade of "C" or better.

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:
1. Solve chemical problems using modern atomic theory (ILO2, ILO34
2. Perform chemical experiments in a scientific manner using proper techniques, data analysis, and safety equipment. (IL02, ILO3, ILO4)

Course Objectives

Upon satisfactory completion of the course, students will be able to:
1.calculate English and metric unit conversions and measurements using dimensional analysis.
2.write symbols for elements and know common ionic charges.
3.derive and write formulas and names for chemical compounds.
4.write and balance common chemical equations and identify reaction types.
5.solve stoichiometric problems, including their solutions using dimensional analysis.

6.describe atomic structure including isotopes, periodicity and molecular structure in terms of subatomic particles.
7.identify types of energy and calculate specific heat; identify energy involved in change of state including heat of vaporization and predict behaviors in cooling curves; calculate caloric and nutritional values of various foods.
8.describe gas behavior and solve problems involving the various gas laws.
9.identify the type of intermolecular forces existing between molecules, and its effect on macroscopic property of the substance.
10. calculate solution concentration of various types including dilutions.
11. define the three basic concepts (Arrhenius, Bronsted-Lowry and Lewis) of acids and bases and perform titration experiments and calculate pH.
12. use Le Chatelier's Principle to predict the shift in the direction of the reactants/products
13. determine the oxidant/reductant and balance redox equations.
14. describe nuclear processes and write nuclear equations using the subatomic particles involved and identify health factors and risks involved.

Textbooks & Other Resources or Links

1. **For online, hybrid and face to face classes**, you don't need to buy the book. We will use an OER book (available online for free), this is the book that we will use:
Introductory to Chemistry (Links to an external site.), ISBN 13: 9781453311073

You have several options to obtain this book:

(Preferred) The book on Libretexts (Links to an external site.)

- For the textbook: click on (in above link)

- View online (Links to an external site.) (Links to an external site.)
- Download a PDF (Links to an external site.) (Links to an external site.)
- Order a print copy (Links to an external site.)(Links to an external site.)

2. Lab Manuals and Safety goggles: you need to purchase the lab manual from chem or stem club (more details about purchasing the lab manual will be announced on the first day of class).
3. Non programmable calculator: a highly recommended calculator is the Texas Instruments TI36X Solar Scientific Calculator (not the "Pro") or the TI-30Xa.
4. 6 Scranton 882-E for your final & midterm exams.

Course Requirements and Instructional Methods

For Hybrid class, the lecture will be online asynchronous through canvas (no zoom meeting), and the labs will be face to face (on Campus meeting). For the face to face class lecture and labs will be face to face (both will be on campus).

For all classes, we will use ADAPT platform for doing the online assignments Homework. The midterm exams and final exam will be in-person in Campus.

- **Homework ADAPT**: Online Homework for each chapter will be using ADAPT software, and the due date will be find either on canvas or on the ADAPT. More information about this will be delivered on the first day of the class. The goal is to give you enough practice to enable you to be successful on the examinations. You will have 2 attempts per question to answer it correctly. There will be no penalty for correctly answering on the first, or second attempt. After the due date, the homework assignment can be worked and submitted late for a 30% deduction. More instructions how to REGISTER AND USE the ADAPT online homework WILL BE DISCUSSED ON THE FIRST DAY.
- **Canvas practice and quizzes**: There will some practice assignments and quizzes on canvas needed to be done in each week. All these assignments are detailed on canvas on modules.

*There's online tutoring with a live person in **Net Tutor** (embedded inside Blackboard or Canvas).

• **Midterm Lecture Exams**: we will have 5 midterm exams face to face (in-person) on class. I will drop the lowest midterm exam. **No make-up exam.**

• **Laboratory**: you will do all experiments on the lab, and you will follow the lab's manual (you need to buy it on the first week). There is a lab report for each experiment that you need to submit in hand at the end of the lab day. **No make-up lab.**

• **Final Exam**: The Final Exam is comprehensive and in-person (You will be tested in all chapters 1 to 14). There are **no make-ups** because the date and time of the Final is the last day of class.

• **Extra credit**: Depending on the whole class performance, I will decide if you all need extra credit or not, and don't expect too many extra credit, just few extra credit will be added on the final grades.

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

Course Grading Based on Course Objectives

- **Study Hints:** Chemistry is a very demanding course. Depending on your background, you will need to spend 1-4 hours outside of lab to get your work done. Missing a lecture usually means your grade falls by ½ grade.

• Do not fall behind so:
- **Go to office hours**
- **Get a tutor**
- **Form study groups**

• No Gifts, cards, or food. All will be refused. Spend your time and effort studying.
• Don't try to cram! It doesn't work.
• Keep up!!

Homework ADAPT	10%
Lab final exam	5%
Midterm exams	40%
Lab Report	20%

Canvas practice & Quizzes	10%
Lecture final exam	15%
Total	100%

Your final grade will be assigned based on following manner:

90% – 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
Below 59%	F

Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through ***DSPS***, contact them for additional assistance.

We are here to support you and ensure that you have equal access to all course materials.

Course Policies

- A student who fails to attend the first meeting of a face to face or hybrid class or does not complete the first mandatory activity of an online class will be dropped by the instructor. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.

Other Course Information

- **Add/Drop**: it is the responsibility of the student to take the necessary steps to add and/or drop the class by the college deadlines.

- **Late Submissions** Any late work (homework assignment, project, lab report, quizzes, exams) will not be accepted after the due date. If you have an urgent issue or an emergency talk with me in advance to extend the due date for you.

Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Makings SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at finaid@imperial.edu.

IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit http://www.imperial.edu/studentresources or click the heart icon in Canvas.

Anticipated Class Schedule/Calendar

Week	Lecture Online On canvas	Lab experiment On Wednesday At 2:40 pm room 2715
1 **Start on** **Monday 08/11**	Module1: Read and review Assignments: 1.4, 5, &6 are due on Sunday night	Module 0, Syllabus, introduction to the class & introduction to Lab
2 **Start on** **Monday 08/18**	Module2: Read and review Assignments: 2.4, 5, 6 &7 are due on Sunday night	Lab Safety & Lab Check in
3 **Start on** **Monday 08/25**	Module3: Read and review Assignments: 3.4, 5, 6 &7 are due on Sunday night	Lab Exp 1
4 **Start on** **Monday 09/01**	Module5: Read and review Assignments: 5.4, 5, 6 &7 are due on Sunday night	Lab Exp. 2
5 **Start on** **Monday 09/08**	Module6: Read and review	**Module 4: prepare for exam** **Exam 1 (Module 1, 2, & 3)**
6 **Start on** **Monday 09/15**	Assignments: 6.4, 5, 6, 7, 8 &9 are due on Sunday night	Nomenclature dry Lab
7 **Start on** **Monday 09/22**	Module8: Read and review Assignments: 8.4, 5, 6, 7, 8 &9 are due on Sunday night	**Module 7: prepare for exam** **Exam 2 (Module 5 & 6)**
8	Module9: Read and review	Lab Exp. 5

IMPERIAL VALLEY COLLEGE

Start on Monday 09/29	Assignments: 9.4, 5, 6, 7, 8, 9 &10 are due on Sunday night	
9 Start on Monday 10/06	Module11: Read and review Assignments: 11.3, 4, 5, 6 & 7 are due on Sunday night	**Module 10: prepare for exam Exam 3 (Module 8 & 9)**
10 Start on Monday 10/13	Module12: Read and review	Lab Exp. 4
11 Start on Monday 10/20	Assignments: 12.3, 4, 5, 6, 7, 8, 9 & 10 are due on Sunday night	Lab Exp. 3
12 Start on Monday 10/27	Module14: Read and review Assignments: 14.3, 4, 5 are due on Sunday night	**Module 13: prepare for exam Exam 4 (Module 11 & 12)**
13 Start on Monday 11/03	Module15: Read and review Assignments: 14.3, & 4 are due on Sunday night	Lab exp. 6
14 Start on Monday 11/10	Module17: Read and review	Lab Exp. 8
15 Start on Monday 11/17	Assignments: 17.3, & 4 are due on Sunday night	**Module 16: prepare for exam Exam 5 (Module 14 & 15)**
16 Start on Monday 11/24	**Thanksgiving break No classes**	**Thanksgiving break No classes**
17 Start on Monday 12/01	**Final week & Final exam**	**Final exam (All modules)**

*****Subject to change without prior notice*****