

# AP Chemistry

Advanced Placement (AP) Chemistry is  
Introductory College Chemistry (ICC)

- AP Chemistry is intended to allow students with advanced aptitude as well as academic / emotional maturity an opportunity to complete Introductory College Chemistry (ICC).
- Rancho Bernardo's AP Chemistry course is modeled upon the ICC curriculum at the Massachusetts Institute of Technology (MIT) and UC Berkley.
- AP Chemistry is not a high school or college preparatory course. It is ICC and the course content covers the entire ICC curriculum at the same accelerated pace one would endure at any of the nations top ranked universities.

# Who should consider AP Chemistry?

- Students that intend to pursue a college curriculum that requires ICC should consider enrolling in AP Chemistry.
- Depending upon the College or University one attends, the post-secondary curriculum majors and minors that typically require ICC are:
  - All branches of Chemistry and Biology;
  - Pre-Medical, Pre-Dental, Pre-Pharmacy & Pre-Vet Majors.
  - Various Engineering Degree programs.
- Students that intend to apply to medical schools upon completion of their Baccalaureate studies are strongly encouraged to complete AP Chemistry prior to undergraduate matriculation.

# Why should you consider AP Chemistry?

- ICC is generally used as the initial “gatekeeper” course at most major universities in this country for careers in Science, Engineering, and Medicine.
- Just passing ICC is not sufficient to qualify for admission in many of the most competitive post-baccalaureate programs. Applicants to these programs are generally expected to have maintained a level of achievement in the top quartile of their preparatory courses.
- The objective of RB’s AP Chemistry course is to ensure that a student ranks in the upper percentile of the ICC course at the post-secondary institutions that they ultimately attend, including the most competitive in this country.

# AP Chemistry Course Logistics:

- The RB AP Chemistry course fulfills the expectations of the major universities in this country insofar as the breadth and depth of the core ICC content.
- The course includes weighted components that enable a student an opportunity to determine their emotional and academic aptitude for ICC while maintaining a respectable GPA.
- The class time is designed predominately around collaborative problem solving strategies. A minimal amount of time is spent in lectures due to the time limitations as well as the depth and breadth of the material that must be covered
- To that end, the lectures mostly center around student generated questions.

# Schedule for Success

- ICC is a very labor intensive course. The expectation is that students will spend a 5-10 hours weekly outside of class in course work, not including test corrections or uncompleted classwork. This estimate must necessarily be adjusted based upon each individual's aptitude, background and attendance. What is critical is to plan one's schedule to accommodate the work load.
- The most common reasons for failure in an ICC curriculum, both here and at any post-secondary institution, are a student's inability to adjust to the time demands of the curriculum, and /or inexperience with the level of course rigor.
- The first issue, 'time constraints', is easily overcome by realistic scheduling. Writing in a planner when you plan to work on each assignment is this most effective way to stay up to date.

- Besides the logistics of time, ‘academic / emotional aptitude’, is more difficult to overcome *but not impossible*.
- There are a number of strategies that can be adapted to fit most individual circumstances. It is thus imperative that a struggling student be pro-active in seeking help and guidance from the course instructor.
- Of critical importance is the realization that if a student has any desire to succeed in a rigorous post-secondary curriculum at a competitive college or university, then this opportunity to overcome their shortcomings may be the deciding factor in their future achievement.

## **A typical week (1 chapter unit) is as follows:**

Prior to the beginning of each unit throughout the course students are expected to read and take notes on the current chapter,

On Mondays, prior to the start of a new text chapter, each student is expected to submit chapter notes and drawings, complete online problems from our online textbook, and complete corresponding workbook problems.

In addition, a completed pre-lab and pre-lab questions for any scheduled laboratory exercises for the upcoming week are due prior to entering the lab.

Students will write in a formal college laboratory duplicate copy lab book. Each lab is assessed individually and, after collection of data, must therefore be completed individually. The lab book ultimately should be submitted by each student to their chosen university to be evaluate for college laboratory credit.

Assessments will be scheduled when the professor deems the class, on average, is ready to be assessed.

## **Class Work and Homework:**

The majority of the scheduled class time each week is devoted to collaborative problem solving from the textbook, workbook, labs and old AP Exam questions.

Completed assignments must be turned in on time for credit, or late with a homework coupon. Late work receives part credit. Incomplete assignments may receive partial credit or, in some instances, such as pre-labs, no credit.

Working and talking cooperatively is different from copying. Plagiarism rules apply to all subjects. No two papers or labs should look the same or contain the same ideas.

## Assessments:

Quizzes will be scheduled initially to cover memorized polyatomic ions, strong acids and bases.

Throughout the year, quizzes may be given at the conclusion of an experiment on lab concepts and calculations. Students may use their lab book on lab quizzes.

All students are encouraged to complete quiz and test corrections during the tutorial period of the week following the quiz. Students can improve their grade with thorough, correct explanations of missed questions.

A lab practical is given at the end of AP Chemistry 3 and a comprehensive final exam is given at the completion of the AP Chemistry 4, unless the student takes the AP Chemistry Exam.