AP Chemistry

Instructor: Jian Wei, Ph.D. Chemistry, Tufts University
Dr. Wei has taught Chemistry (basic and advances levels) every year since 2011 at NCLS.

Class time: **3:40–5:00 PM, Sundays**
Run consecutively for the entire school year

Who should take this course?
Students who has taken the first-year high school Chemistry in the previous school year, who will start taking AP Chemistry in the current school year (September),

- would like to improve one's performance in AP Chemistry course
- plan to take AP Chemistry Exam in early May or early June of spring semester of current academic year

What does this course do? The two primary objectives of this course are:

1. Improving students' understanding of chemistry principles and proficiency in applying these principles to problem solving. Students will improve their understanding of the fundamental concepts of chemistry and their problem solving skills by applying these principles.
2. Preparing students for the AP Chemistry Exam. The course will provide information on the AP Chemistry Exam, offer advice and guidance on preparing for the exam/test, and administer practice exams.

Note: While this course do help students prepare for AP Chemistry Exam, the ultimate goals of the course is to improve students' understanding of the fundamental concepts of chemistry and their problem solving skills by applying these principles, so that one should see performance improvements of students in their high school AP Chemistry class.

Q: This course does not offer hands-on laboratory experiments. Can students effectively learn and improve their performance in AP Chemistry Exam?
A: There will be in-class video display of demos of relevant chemistry lab experiments over the entire academic year.

Course Teaching Plan: The teaching curriculum is designed for the students who plan to take AP Chemistry Exam in early May and June of current academic year. We will cover each unit below in about three-week period. We will have in class practice excises after each chapter each week.

UNIT 1 Atomic Structure and Properties
UNIT 2 Molecular and Ionic Compound Structure and Properties
UNIT 3 Intermolecular Forces and Properties
UNIT 4 Chemical Reactions
UNIT 5 Kinetics
UNIT 6 Thermodynamics
UNIT 7 Equilibrium
UNIT 8 Acids and Bases
UNIT 9 Applications of Thermodynamics