

Advanced Placement Chemistry

Welcome to Advanced Placement Chemistry! Some of you have taken an Advanced Placement course before, while for others of you, this will be your first experience with AP. The course requires much hard work, and in some cases, personal sacrifices of time. Therefore, now and in the future it is important to keep focused on the advantages offered by this course. I list a few of these advantages here:

1. Of course, one of the most obvious benefits to this course is that when you take and pass the national AP exam given in May, you can receive college credit at most colleges and universities in the United States.
2. Regardless of whether or not a student passes the national exam, (s)he may choose to take freshman chemistry in college anyway. Those who have gone this route in the past have found that they have a tremendous advantage over others who have not taken AP Chemistry.
3. AP Chemistry looks great on your high school transcript. Many of the most prestigious universities in the U.S. are looking for ways in which students have distinguished themselves during their high school career. One way to do this is by taking AP courses.
4. Our AP course includes individualized instruction, and as a result, the teacher really gets to know the students. This is a real advantage for the student when the teacher is asked to write a letter of recommendation, or is contacted regarding a reference.
5. As difficult as AP Chemistry is, you will find that it will never be as easy to learn freshman college chemistry as it is now. High school classes are generally smaller than college classes. It is not unusual for freshman college classes to have 200 or more students. In this situation, it is nearly impossible to ask a question during class, or get any individual attention after class. In AP Chemistry, we always take time for questions and answers, and I am almost always available for after school help.
6. AP Chemistry will teach you to think at higher levels. Learning will rarely be of the “parrot-back” variety. In AP Chemistry, you will be forced to think and apply concepts to new situations, and even derive your own theories from application. This is excellent preparation for the higher levels of thinking required in college.

Students need to be realistic about the expectations for this course. Many students THINK they are ready for college level work, but really don't know what that means. In order to get a more realistic view of this course, I have included some perceptions entering students have, and the reality of the situation:

1. **PERCEPTION:** I have always been a “straight A” student, and always will be.
REALITY: Although there are many A's in the class, there are also B's, C's, D's, and F's. And all of these students were top students in their first year chemistry class. If your

main purpose in taking this class is to collect one more “A”, you are taking the class for the wrong reason, and may be disappointed. There are easier classes to get an “A” in.

2. **PERCEPTION:** I can miss class (sports, activities, family vacations, jobs, field trips, etc.) and catch up on my own. I always have before.

REALITY: You can't. In AP Chemistry, you have to give up a lot to get a lot. Missing class is the number one reason why students fall behind, get lost, give up, and either drop the class or get a low grade. Therefore, you will have to say “no” to things that will take you out of class.

3. **PERCEPTION:** Like all teachers, Mrs. Williams is exaggerating about how much work there is and how tough it really is.

REALITY: I'm not exaggerating! Probably the best way to check this is to talk with students who have taken the class before. I can provide you with a list if you wish.

4. **PERCEPTION:** Mrs. Williams is making this class a lot tougher than it really needs to be.

REALITY: This is a college level course, NOT an advanced high school course. If I am doing my job, students in this course should learn as much as they would if they were taking freshman chemistry or any college or university in the United States. A second goal is to properly prepare students for the AP Exam in May. I cannot make the course easier and still accomplish these goals. The College Board dictates the standards.

5. **PERCEPTION:** If the majority of the class falls behind, Mrs. Williams will just have to slow down so that we can catch up.

REALITY: I can't. You will find that time is of the essence in this course. As much as I may like to and as much as the students may need it, our schedule cannot be adjusted to accommodate those who cannot keep up. Students will be expected to study the test on their own, and class time will be used more for clearing up questions than for introducing new material. There is really no other way to cover the vast amount of material required by the AP Exam. Students can expect to spend about one hour outside of class time just in the study of chemistry every night. Certainly any students who have after-school activities will have to budget their time carefully.

6. **PERCEPTION:** All this work Mrs. Williams is talking about must be just for the “dummies”. I'm smarter than that!

REALITY: All students who are successful in this course will have to spend time after school, either getting help on an assignment, completing lab work, or reviewing tests. If you are never available immediately after school to do chemistry work, you should not take this course. Students will be encouraged to form study groups to get many of the questions answered.

7. **PERCEPTION:** Mrs. Williams doesn't really expect us to do a summer assignment and she isn't really going to give us a test the first Friday back in August.

REALITY: I am serious about this! The summer's assignment is mainly review of first year chemistry. This early work will allow us to spend more time later on more difficult topics.

Finally, I asked current AP students to tell me things they think other students should know before taking AP Chemistry.

- There is a ton of math.
- If you know what college you want to go to, check to see if they accept AP credit.
- Doing well in first year chemistry does not guarantee you'll do well in AP.
- The test questions almost never involve regurgitation of material. It takes what you know and applies it.
- It takes a lot of hard work and there's a lot of math.
- You don't learn everything in class so you have to study outside of class.
- Read your book.
- Be prepared to spend time out of the classroom studying.
- Do your homework, not out of the back of the book.
- Don't wait for the last minute to study or do homework.
- Pay attention.

Now that I have scared all of you, I will say that there is fun to be had in this course, as well as the satisfaction of challenging yourself to the limit of your academic ability.

AP Chemistry Summer Assignment

Read chapters 1-3.

Chapter 1 HW Problems:

1.1, 3, 5, 9

11, 14, 15, 16, 17, 19, 21

23, 24, 25, 27, 31

33, 35, 38, 39

41, 44, 48, 49, 52, 53

55

Chapter 2 HW Problems:

2.1, 3, 5, 7, 8

10

17, 19, 21, 22, 25, 30

37, 41, 43, 46, 49, 51, 53, 56, 58, 59

61, 66, 68, 69, 71, 73, 76, 77

Chapter 3 HW Problems:

3.1, 2

9, 11, 13

17, 19

22, 24

27, 30, 33, 37, 40

45, 48, 54

57, 62

67, 73, 77, 80

101

Homework problems are due the first day of class.

There will be a test over chapters 1-3 on the Friday after school starts.

Have a great summer!