

QUESTIONS YOU MAY HAVE ABOUT CHEM 32

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Am I prepared for Chem 32?

1) *Do I need to know any chemistry to take Chem 32?*

No, you don't. We start from the beginning in Chem 32, and we assume no previous exposure to chemistry. Obviously, if you have taken chemistry in the past, it won't hurt you; but it really isn't necessary.

2) *Do I need to know a lot of math?*

No: just basic arithmetic. I won't even ask you to do arithmetic by hand; you will always be allowed to use a calculator to do the math. You may encounter some new mathematical ideas during the course, but I will go over each of them as we get to them.

Is Chem 32 the right course for me?

3) *I'm a pre-med. Is this a good course for me?*

No. If you intend to get an M.D., you will need to take at least three semesters of chemistry, starting with Chem 101A. Chem 32 does not satisfy the requirements of medical schools, dental schools, chiropractic schools, and similar programs. (Chem 32 may satisfy the requirements of some non-traditional medical programs: consult the school you are interested in for specific information.)

4) *My nursing program requires two semesters of chemistry. Should I take Chem 32?*

Yes, you should. For the second semester, you should take Chem 33, which covers additional topics that are relevant to allied-health majors.

5) *How can I find out if this course satisfies the requirement for a specific program at a different college?*

There are several resources you can use. The staff at the Transfer Center (located in Science Hall 132) is very good at answering questions about transferability of courses. You can also look up specific course-to-course equivalences between City College and many CSU and UC campuses at www.assist.org. I can also help answer questions of this sort, but you should bring me as much information about the other college's requirement as you can.

6) *Can I take this course to prepare me for Chem 101A?*

Chem 32 does not satisfy the prerequisite for Chem 101A, and it does not cover the material you'll need to know in order to succeed in 101A. If you will be taking Chem 101A and you want a preparatory class, take Chem 40, which is specifically designed to prepare you for 101A or 103A.

How do I succeed in Chem 32?

7) *What's the best way to succeed in Chem 32?*

There is no guaranteed path to success, but there are certain things that you can do that will help your chances greatly:

a) Don't get behind! Many people take Chem 32 assuming that they can approach it the way they approached their high school classes: ignore the class until a day or two before the test. They fall behind in the very first week or two, struggle their way through a succession of rotten quiz and test grades, and end up thinking that Chem 32 is impossibly difficult. This course isn't all that difficult (i.e. you don't have to be super-smart), but it is time-consuming (i.e. there's a lot to learn), and it requires careful time management.

b) Read the assigned sections in the book. Don't assume that everything you need to learn will be in the lecture. The reading assignments will not be long (between 15 and 30 pages is typical), but they are important and they will require a lot of concentration on your part.

c) Do the homework problems. This may require going back over the reading (several times if necessary), and even going back over previous readings, since chemistry is a subject that

builds upon itself. Also, give yourself enough time to do a good job on the homework. Expect to spend anywhere from 2 to 4 hours (or more!) doing a homework set. Don't wait until the morning of the day that the homework is due: start it as soon as you get it!

d) Get assistance on any problems that you really can't work out. You can ask me, your fellow students, your lab instructor, or one of our tutors.

e) If there are specific facts that need to be memorized, start committing them to memory right away. You will need to learn quite a few pieces of information during the semester, including names of chemicals, technical terms, and physical concepts. Make yourself a set of flash cards and use them.

8) *I'm working full-time, taking care of three kids by myself, and taking 12 units (including this course). Can I handle Chem 32?*

If you need only 30 minutes of sleep a night, and you have the world's most docile children, and your boss lets you do your homework on the job, and your last name is Einstein, you might be able to manage it. But otherwise, the answer is NO!! Be realistic about time management. This course will require an average of two to three hours per day of your time (outside of class time!), seven days a week. If you don't have that much time available, and you want to pass Chem 32, you will need to rethink your schedule. Do it now, before you get hopelessly behind.

9) *Is it okay to work with my friends?*

I encourage you to work with your friends if you are doing homework assignments or studying. Just be sure that YOU are doing a fair share of the work. You won't learn anything by simply copying a friend's homework and turning it in.

The best way to approach the homework is to try it by yourself first (and give it your best effort), then get together with other students to work out any remaining confusion. This works well for most people, and I encourage you to find one or more fellow students to cooperate on homework in the fashion.

10) *Can I use an older version of the textbook?*

See the note on the syllabus.

11) *I see that homework is due every day: what if I miss a class and don't turn it in?*

You can miss two homework assignments without penalty. However, if you miss more than that, you get a zero for each additional assignment that you miss. Be warned: if you don't turn in a homework assignment, you are falling behind, and that is a sure route to an F in this class.

12) *I can't memorize things! What should I do?*

Of course you can memorize things! Do you know your telephone number? Do you remember your address? Do you know your best friend's name? Okay, then you can memorize names like tetra(2-methylpropyl)ammonium p-methoxybenzoate. (Don't worry: you won't have to learn any names that are as long as this!) The key to memorization is constantly thinking about the material: keep thinking about the same thing often enough, and your brain will eventually remember it. (There are lots of tricks to help you remember things. I have a handout if you're interested.)

13) *I can't do math! I hate math! What should I do?*

Now wait a minute here.... I bet that you can do math, too. Quick, what's $2 + 2$? If you said "four", you can do math. Seriously, though: we'll keep the math to a minimum, and you will find that you really can handle it. In fact, you may even like it, because it will have a purpose.

14) *I think I might need a tutor. Where can I find one?*

The **Learning Assistance Center** (room 207 in the library) offers free tutoring for Chem 32 students. You can drop in any time that a tutor is available. (We'll post the schedule when it becomes available.) However, the hours are limited, and tutoring is very popular, so you should not expect to get a lot of individual attention.

Private tutoring is hard to find, and it tends to be expensive (though many private tutors offer discounted group rates). Your best bet is to check bulletin boards in Science Hall and at other local colleges (for example, San Francisco State, Skyline College, and UCSF).

The good news is that many people who think they need a lot of tutoring actually don't. What they really need is to give themselves enough time to do their individual studying. Any remaining questions can be dealt with by asking me in office hours or during lab, or asking other students.

Tell me about grading and tests.

15) Do you grade this class on a curve?

No, I don't. I go strictly by your percentage in the class; that way you always know exactly where you stand and you aren't competing with other people for the top grades. I have never believed in limiting a class to 15% A's, 20% B's, etc.... Getting an A in Chem 32 takes a lot of work, but it's your work: you don't need to worry about losing your A just because you had a lot of super smart classmates.

16) Do you drop any quizzes or tests?

No. Doing poorly on one quiz won't affect your grade enough to worry about. Doing poorly on a test will have a significant impact on your grade, of course, but all of the material is important and I cannot exempt you from a quarter of the course.

17) What if I miss a quiz or a test?

I do not give make-up quizzes or tests, under any circumstances, for any reason. You are allowed to miss up to two quizzes without penalty. I use your average on the other quizzes and the class average on the quiz you missed to calculate a "dummy score". (This ensures that a student who happens to miss a particularly difficult quiz doesn't get a break.) Don't miss quizzes unless you have no choice (illness, childcare emergency, etc.), because you'll get a zero on any missed quizzes beyond the second.

If you miss an exam, I use your performance on the relevant material on the final exam to calculate a replacement score. I've only had about ten students miss a Chem 32 exam and complete the rest of the course, and in eight of those cases their grades were lowered by using their final exam work as a replacement; so DO NOT miss an exam unless you have absolutely no choice (your child is violently ill, you yourself are in the hospital, you've been subpoenaed...)

18) Can I use a dictionary or an electronic translator during tests and quizzes?

No. Sorry, but you can't use either one. The only thing that you can use is a pencil and a non-programmable calculator (the kind that just does arithmetic, no graphing calculators).

Ethical issues

19) Can I ask my friend for help during a test?

For many of you, this may seem like a silly question: of course you can't work with anyone during a test. The purpose of a test is to find out how much chemistry you have learned. However, I have found that it is important to make my testing policies very clear ahead of time. I will expect you to know these policies and to follow them. If you do not, I will either give you an F or drop you from the class.

a) You may not talk to any other student during a test, in any language, about any subject. (Anything that you want to say to your friend will have to wait until after the test.)

b) You may not pass any kind of written material to any other student.

c) You may not use any of your own notes, or any other written or printed material. You will need to put all papers and books out of sight during quizzes and tests.

d) You may not look at any other student's paper. (The students next to you will have a different set of questions...but still, don't let your eyes wander.)

e) You may not share a calculator with another student. (If you forget your calculator, I may be able to lend you a calculator. Otherwise, you will have to do your arithmetic by hand.)

The big picture...

20) *You've made it abundantly clear that this class is going to be a lot of work. Not only that, people tell me that chemistry is really hard. So why should I take chemistry?*

The practical answer, if you are going into nursing or another health field, is that the course contains a lot of information that you need to know in the future. If you are going into any health-related field, some of the material we cover will be essential background for your career. You will also learn many concepts that will help you in courses such as microbiology and physiology.

However, the value of chemistry goes far beyond your career. Chemistry plays a role in virtually every aspect of your life, from your food choices to the fuel you use to heat your home or power your car, from the quality of your drinking water to the quality of the air you breathe. We will raise, and answer, a host of questions that relate to your everyday life, such as...

"Why don't oil and water mix?"

"How do people know how many calories there are in food?"

"How does my DNA control what I look like?"

"What's the difference between HDL cholesterol and LDL cholesterol?"

"What do our bodies use vitamins for?"

"What happens when you burn a piece of wood?"

"What does it mean when they say that an aspirin tablet is buffered?"

"What is acid rain?"

"What am I actually testing when I use a pH test kit on my garden soil?"

"How do my eyes see light?"

"I keep hearing about 'electrolyte balance': what is that?"

"Why does decaying fish smell so bad?"

"What makes me breathe faster when I exercise?"

I hope that at least one of these questions seems interesting. Perhaps one or more of them have already occurred to you; maybe you know the answers to some of them (or think you do!). Many of them are unavoidable in everyday life; some of them can literally be life-or-death issues. Whatever the case may be, the fact of the matter is that it is human nature to be curious about the world, and to want to know "why". Perhaps that is the best answer I can give you: you'll get a chance to learn the answers to a lot of very commonplace--but very profound--questions about the world we live in. From time to time, step back and give yourself a chance to savor this opportunity.