

FAST FACTS for Freshmen

1 A Strong Start

Class Strategies • Notetaking • Working with Faculty

“Basically, in high school, it’s just read the book, do the problems, and the answers are in the book. Now you need to know concepts to do the problems. That is a totally different learning style.”

—Rob, Computer Science

“Honestly, the work itself wasn’t as tough as I thought it would be; it’s just different. There’s a lot more reading and a lot more responsibility, because the teachers aren’t nagging you to do your work. If you don’t do it, you’ll just fall behind.”

—Naoka, Architecture

“Try to avoid missing classes, even the ones at 8:30 a.m. or the ones you hate. If you do miss class then try to catch up immediately, because if you don’t, it will snowball and flatten you when you take a test.”

—Gwo, Civil and Environmental Engineering

“If you miss a lecture, you’re going to have to make it up later. You could have been in a lecture for 50 minutes and have understood 90% of it. If you miss that lecture, you’re going to have to spend two or three hours outside of class asking someone and understanding it on your own.”

—Jenna, Business Administration

Class Strategies

No doubt about it, you’ll probably find that college classes are very different from high school ones.

Following are strategies for dealing with college classes—from small to auditorium-sized.

Go to class.

Many students report that they miss class, lab or studio because they need to get caught up with work for another course. As a result, they may miss an important concept in a class, and then feel that they can’t ask a professor for clarification. Because you have the freedom to choose whether or not to go to class, it is your responsibility to carefully weigh what you’ll gain and what you’ll lose by skipping a class.

In a small course, it will be quite apparent to the professor and your peers that you’re not there. In a large course, you may feel that no one will know. Again, it is your choice, but you have to weigh the consequences.

If you do have to miss a class for a valid reason, you should call or e-mail your professor that you will be missing or did miss the class and why. And also ask a classmate if you can borrow notes and get an update on any assignments you may have missed.

Don’t think that you can skip a class because you’re keeping up with the outside readings. Lecture often deviates from the text—and an interesting class discussion can never be replicated between just you and your book.

Follow the syllabus.

Your syllabus contains valuable information such as when homework, papers and other projects are due; when tests are scheduled; and how much these items count toward your grade. Be aware, however, that your professor may supplement the information contained in the syllabus, so if you miss a class where the professor said that if you fail the final, you fail the course, you can’t complain that it wasn’t on the syllabus. Also, due dates can change, so keeping up with any changes in the schedule is important.

Be sure to read through the syllabus soon after you’ve received it, note any important paper due dates or test dates in your calendar—and hold on and refer to this important document throughout the semester. (Some syllabi are even posted on the web for easy access.) Remember: even if the professor doesn’t reiterate what’s in the syllabus, if it’s written there, you should assume it’s the rule.

Come prepared.

- *Do your homework.* Even if it doesn’t have to be handed in and

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FACULTY FEEDBACK

“The better prepared you are for class, the freer you are to absorb the tougher stuff without being sidetracked by the more mundane material, or by unnecessary notetaking. You’ll have more time to filter and prioritize the information.”

—Professor, Economics

TIP

It’s better to come to class unprepared than to skip class entirely. If you didn’t have time to fully prepare, at least skim the readings for about 10 minutes before class so that you won’t be completely lost—reading headers, subheaders and the chapter summary.

THE MYSTERIOUS “GOLDEN TRIANGLE”

While not everyone can (or wants to) sit in the front of the class, students report that sitting within the imaginary triangle in front of and to the sides of the instructor can help you keep more alert and absorb more of the lecture. This can be especially helpful in large classes.

TIP

Some students find that bringing a bottle of water or a small container of dry cereal to class—to consume quietly—helps keep them alert.

graded, doing your homework is the best way to review what you’ve been taught, monitor your understanding and make sure you know it so that you will be prepared for the next class.

- *Try to do the required readings before class.* Often, the lecture will be based at least somewhat on the required readings, and, unlike in high school, your professors won’t repeat and review the material for you. If you haven’t done your reading, you may miss connections among concepts and theories being discussed and applied.

Doing required readings is especially important when preparing for a lab. Not only will being familiar with the underlying concepts allow you to make good use of your in-lab time and enable you to design and complete useful experiments but, most importantly, reading the lab manual will make you aware of chemical or physical dangers you might encounter.

- *Review notes from the last lecture.* Studies show that reviewing your notes within 24 hours maximizes your retention of the topics covered—and will help you learn more from the following lecture.

While all of these preparation tips are important in helping you learn, they will be even more crucial in courses where class participation is encouraged and counts toward your grade. On the other hand, if you have not had the time to prepare (due to other schoolwork or illness or just plain procrastination), you shouldn’t avoid going to class because of it. You will just fall behind even more.

Adjust to larger class sizes.

Large classes are a fact of life during the first year. But learning in large lectures requires skills that you may not have developed yet—such as

active listening. Listening can be hard work, especially when it’s all new material (and it can be even harder when you’re trying to concentrate among other students who aren’t paying attention).

To be a better listener, try:

- *Looking at the speaker* and paying attention to both verbal and non-verbal messages.
- *Zeroing in* on the information that seems most important.
- *Paraphrasing the speaker’s message to yourself* and asking questions to be sure you understand what the speaker is trying to say. Don’t jump to conclusions.
- *Connecting information* to things you’ve already learned in the course or to the information currently being discussed.

If you’d like some extra help in getting the most out of your courses, you should visit Academic Development, which offers peer tutoring in large introductory courses like calculus, biology, chemistry, physics, economics and writing. (See contact information on the last page.)

Join the discussion.

In high school, your classes probably went something like this: your teacher taught and you listened. Learning is more interactive in a college classroom, and, remember, here, *you* are in control of what you learn. Ask questions and get involved in the discussion: information doesn’t become knowledge until you do something with it.

Small classes are ideally suited for lots of question-and-answer interplay and lively class discussions. But even in big classes, don’t be shy about asking questions. Chances are, others in the class are

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“I have a notetaking buddy in each course. If I have to miss class, I contact him or her and ask for the notes I missed. It also helps to compare notes with my buddies when it’s time to review for a test.”
—Thuy, Computer Science

FACULTY FEEDBACK

“When I’m writing the theorem on the board, you should be copying that down. But what’s equally important is what I’m saying about when and why you should use the theorem. You should be writing that down, too.”

—Professor, Mathematical Sciences

“Unprepared students have a tendency to write everything down, which cuts into the time/ability to understand the material. You want a good set of notes, but you don’t want lectures to become just notetaking sessions.”

—Professor, History

“Develop relationships with certain faculty members so they get to know you and your work. This will pay off when you need letters of recommendation later. Sadly, there are some students who may need such letters but do not know any faculty well enough to ask them for the support. Don’t be one of them!”

—Professor, Architecture

wondering the same thing you are. And professors appreciate questions; it helps them gauge how well they’re getting the subject across.

But what if you’re shy? If class participation is not required, don’t let it bother you that you’re not asking questions every day or at all. If participation is required, however, you will want to talk to your professor to let him or her know that it makes you uncomfortable. You may be able to work out an alternative to voicing your opinions in class.

Meet the professor.

Come on. You’re at *Carnegie Mellon*. Your professor is probably a world-renowned leader in the field. Aren’t you the *least* bit curious to talk to him or her? Well, even if you’re not, you probably should, at least once. If the professor has met you before you need to discuss a problem, he or she will be more receptive to you when you *do* have an issue to discuss. (Read more under “Working with Faculty and Teaching Assistants.”)

Watch your mouth (and your headphones and your cell phone).

Once upon a time, there was a student in a very large chemistry class who one day had to ask the professor a question about a homework problem. She approached the professor by saying, “You don’t know me, but...” The professor interrupted her by saying, “But I *do* know you. You sit next to the one who sleeps.”

Moral of the story? Don’t come late, leave early, read the newspaper, sleep, wear headphones, make or answer cell phone calls or talk to friends during the lecture. In a large class, you may feel anonymous and be tempted to have a little fun (or take a little nap), but it is disruptive to other students and is likely to attract unwanted attention from the professor.

Notetaking (Organizing Information)

You’ve probably been taking notes since elementary school. But with college comes a new style of teaching and a new style of learning—and a whole new concept in notetaking.

In college, learning isn’t simply taking in information, but understanding and being able to apply what the teachers are teaching you. This new approach calls for more careful methods of taking down and organizing the information. Following are some strategies for taking class notes:

- *Don’t rely on your memory alone,* take some notes during each lecture.
- *Realize that the professor may say things in a different way than what’s in the readings,* so you can’t assume that what the professor says is already in the book.
- *Write down what the professor writes on the board, but also annotate with the professor’s comments and your own ideas and questions.* You won’t be able to write down every word the professor says, however, so write down a synopsis instead. Using common abbreviations can help, too.
- *If available, print out class notes from the web,* then you can take your own notes on your professor’s notes.
- *Review your notes within 24 hours.* Retention drops dramatically after that, and even good notes will lose their meaning.

There are several different notetaking methods that have been developed. If you’d like to learn more about alternative methods, visit Academic Development.

“It’s amazing when you have these professors who have written famous books encourage you to come and talk to them outside of class. In high school, you couldn’t call the teachers unless it was a matter of life or death.”

—Tatiana, *Modern Languages*

“When the professors say ‘E-mail me’ they mean it! The second day of my biology class, I e-mailed the professor and told him I was very scared and I would surely fail his course. He told me to come to see him in his office and he gave me some good advice on how to study, and it worked.”

—Paul, *Chemistry*

“TAs are more important than you think. They do a lot of the grading. Once I started talking to the TA I started noticing that he put more feedback on my homeworks, which helped me a lot.”

—Satoru, *Business Administration*

“When I was a freshman, I decided that recitations and office hours were unnecessary during the first couple weeks of the semester. When I did not do very well on my first couple of tests, I decided to change my attitude, and began getting up for those recitations. I got to know my TAs and asked questions more often. TAs really become one of the most important parts of a course, because they can gear a session toward what you do not specifically understand and toward what’s on the test, which they may have made up anyway.”

—Janet, *Biological Sciences*

TIP

If you make an appointment with your professor or TA, be sure to keep it. If you need to cancel, call or e-mail in advance if possible. Nothing irritates a busy professor or grad student more than waiting for a student who never shows up.

Working with Faculty and Teaching Assistants

Compared to many other schools, Carnegie Mellon is small and therefore has more of a community feel to it. It’s only natural that you talk to—and get to know—members of that small community. And that even includes—gasp!—your professors.

Get to know your professors.

Even if you’re in a large class, introduce yourself to your professor within the first couple weeks of class. (Actually, this is important *especially* when you’re in a large class. Connecting with professors and teaching assistants can make you both feel like a part of the community and help you learn better.) You can ask for assistance with a homework problem, take a paper draft to him or her to review during office hours or simply go up before or after class and say hi. You may feel shy about it at first, but it can make asking questions later less difficult. Building a rapport with your professor can really make a difference, in both the grades you receive and in how much you learn in the course.

Faculty report that one of the common mistakes students—particularly first-year students—make is to not make use of faculty and teaching assistant (TA) office hours. Faculty and TAs set office hours aside specifically to help students, and they like to see students make full use of that time. Often, misunderstandings about homework and class topics can be cleared up quickly during office hours, which saves the student’s time.

Getting to know your professors can be especially beneficial if you are interested in conducting undergraduate research. Many students have found that not-for-credit research conducted under supervision of a faculty member highlight of their undergraduate experience.

Meet the teaching assistants, too. TAs, or teaching assistants, are a unique group. Not only are they very knowledgeable in the subject and available to help you, but they’re typically closer to you in age than your professors. And they’re students, too, and therefore you might feel more comfortable approaching them with questions.



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