How to Study for Computer Science

Tip 1) **Do your own work.** When you are assigned homework, spend time working on it and do your best to figure it out on your own. Avoid looking up solutions on the internet. That's not to say looking up solutions is inherently bad, if you are stuck and find the answer online, spend time figuring out why that answer is correct and how to get there. 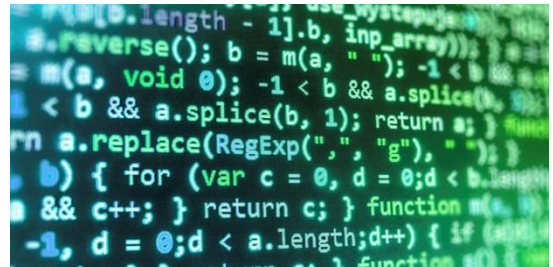Don't just copy and paste the answer, because it will only hurt you in the long run. Sometimes the work may be challenging, but giving up and cheating won't help you in the classroom and it won't help you in life.

Tip 2) **Study the material before you go to class.** A great way to better understand material is to spend some time trying to figure it out before your professor even begins to cover it in class. Spend some time looking through the chapter and try to identify the key concepts. Once you've done that dig a little deeper and try develop an understanding of why they are important and how they relate to other things you've learned already during the semester or from other classes.
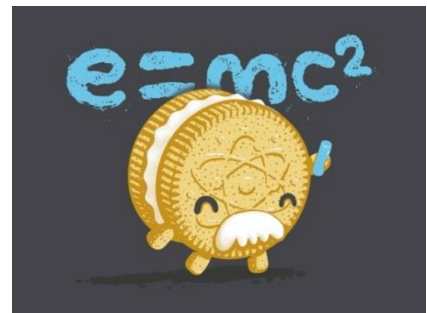
Tip 3) **Think about the big picture**. While you're learning things throughout the semester always be thinking about how it ties in with what you've learned. Everything comes together at some point even if it doesn't seem obvious at first. The more you begin connect topics the better you will understand individual things.

Tip 4) **Don't procrastinate.** Would you rather pull an all-nighter or a get a nice eight hours the night before an exam? The answer should be obvious. Learning and succeeding in computer science is a process, it can't be done in one or two days. Go to SI sessions consistently if you're struggling. Spend time on your homework each week and make sure you really understand what is going on. You should never be learning something for the first time right before an exam.

Tip 5) **Don't be afraid to ask for help.** There is no such thing as a stupid question. Yes that's a cliché, but it's also true. You have lots of resources at your disposal, don't be afraid to use them! Ask the SI, attend tutoring sessions, email professors, attend office hours, and ask your classmates for help. If you do seek help from your peers, make sure they are explaining how and why they got their answers and not just what the answer is. Remember, students who attend SI sessions tend to do better on exams and in general.

Tip 6) **Practice**. In order to get good at anything it takes practice. It is often said that it takes 10,000 hours to master a skill. Obviously, you don't have to spend that much time on this, but the more you practice the better you will become. At a point it will start to feel like second nature. Do the homework, and if you still don't feel comfortable, re-work the problems and others that are similar until you do feel comfortable.

General Rules: You should take pride in your work and success. In order for that success to come, you have to be willing to work hard. Sometimes you may not want to, but you have to put the time in now so you succeed later. You have the opportunity to succeed, an opportunity that many other people would love to have. Do your best to take advantage of that opportunity.

https://www.cmu.edu/acadev/fastfact/Succeed%20in%20CS08.pdf
http://www.dreamincode.net/forums/topic/31451-top-10-tips-for-computer-science-students/