Getting the Most from the PAC

What to Expect

The Programming Assistance Center (PAC) is here to help you learn to program more effectively and more efficiently. The people who staff the PAC are called consultants. They are there to help you learn to program, learn to solve problems, learn to debug, and perhaps to help you learn to manage your resources (time, notes, web pages, etc.) more effectively.

PAC consultants are not there to help you finish your program!

You will get extremely frustrated with the PAC if you assume that you will get the kind of help you want whenever you decide you want it. You will find that you will get help much more quickly and effectively if you do a little bit more work on your own first. With that in mind, consider the advice of one CS415/416 veteran who later became a PAC consultant…

Steps to should take before starting your assignment

0. Don't start coding or even step foot in the PAC.
1. Read the assignment sheet.
2. Read the assignment sheet.
3. Get a highlighter or colored pencil or pen and mark the important points on your assignment sheet.
4. On a separate sheet of paper, make a list of things to do. List things in the order you think you’ll need to do them. Try to write down how you’ll know that you are done with certain steps.
5. Download any starter code that your professor has supplied.
6. Look at any sample inputs and outputs. If a sample video is available for what your program should do when it’s done, watch it.
7. If the starter code has comments, READ THEM!
8. Did you read the comments? Seriously, read the comments.
9. If you have any questions or need clarification about the assignment, email/talk to your professor.
10. You’re now ready to start programming. Turn the first item in your list (see step 4) into comments in the appropriate places of your code. Make empty methods (or functions) as placeholders if you need to.

—Jake Schwartz

Reading the PAC Calendar

Once you’ve (at least tried) starting your assignment, you may find that you’re stuck on something and need help. The PAC is normally open 7 days a week, but you can’t always just walk in and expect to get good help from the PAC consultants there. Here’s why:

1) The PAC opens and closes at different times each day.
2) A consultant on duty may not be familiar with the assignments for your class.

This is why it is important to know where to find the PAC calendar, and how to read it. The easiest way to find the PAC calendar is to use the link on the website for your course. If you want to go there directly, though, you can use the following address:

http://pac.cs.unh.edu/ (then select your course from the “Course” menu item under the page title).

You will see several blocks on the calendar with the names of consultants on duty for a given time and day. These blocks come in two different colors: one bold, and one muted.

**Bold colored blocks** are what you should concentrate on—these represent consultants who should already be familiar with the assignment for your course before you walk in (red for CS415, orange for CS416, blue for CS410, green for VisualBasic courses, and dark grey for IT604).

**Muted colored blocks** indicate consultants who know the language you are using, but are not likely to be familiar with your assignment.

It is usually very busy the day/evening an assignment is due, so even though a consultant is there who can help on the due date, they may not be able to get to you for quite some time.
Time Management
Getting a program to work well takes a decent amount of time. You should consider doing a bit of planning when you first get an assignment so that you don’t end up 5 hours short with only 1 hour left before the assignment is due. 5 or 10 minutes of planning on the day you get an assignment can save you hours and points-off later! Here are some simple steps you can take to put your plan together.

1. **Estimate how long you think the assignment will take.** Use a high estimate. If you tend to be late, take the amount of time you think it will take and double it.

2. **Compare your schedule to the PAC schedule to find when you can get help.** Find out which blocks of time you could come in for help between now and the due date—only use times that someone is available specifically for your course (ignore muted blocks).

3. **Plan for breaks!** Veteran programmers know they can’t focus if they’re hungry or thirsty, and that some of their best ideas come when doing other things (hence the pizza, soda, and games). Break up any blocks longer than 2 hours with a planned break (at least half hour!)

4. **Find the latest time at which you should get started.** You shouldn’t be doing your whole assignment in the PAC, but you should assume that you may need help from the PAC at any time that you’re working. Start from the due date and work backwards filling up the available blocks from the bottom up.

5. **Start before that latest point (the first filled block).** The PAC gets busy Sunday through Wednesday, so it can often be a while before you get help. The earlier you start, the more likely you’ll get help when you really need it, and the less likely you’ll spend time waiting!

If you still have trouble finishing your assignments on time, consider asking for time-management and motivation help from the Center for Academic Resources (CFAR): [http://www.cfar.unh.edu/](http://www.cfar.unh.edu/), contact either Randy Schroeder (randalls@unh.edu) or Daniela Adler (dda@unh.edu).

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**How to get good help when you get to the PAC**

When you get stuck and you toss up your hand for help, don’t just sit around waiting. First, make sure someone is going to get to you—if the “Help” button isn’t working, make sure one of the consultants know you need help. Don’t be shy, we are here to help, and we enjoy it!

1. **Formulate a good question.** Start with, “Right now I’m trying to get my program to…” and end with, “…but instead it’s doing this. Can you help me figure out where the problem is?” Or ask about a particular item in the lecture slides that you’re not sure about.

2. **Provide lots of information by using print statements.** Print out the values of any variables involved (especially if you’re having trouble with loops or functions), and maybe put print statements that just say “Got here!” in code that you think is running but isn’t having an effect.

3. **Be patient & diligent.** You’re not entitled to quick answers, and the quality of help you get will likely reflect the attitude you display: poor attitude ➔ poor help; great attitude ➔ great help!

4. **Interrupt if you don’t understand.** Don’t hesitate to stop your consultant if you aren’t following their explanation, they won’t be offended and it’s not a reflection on you if you don’t understand it right away.

5. **Complain up, not around.** If you’re encountering a problem with a consultant, the schedule, or the computers, then don’t just complain to your friends—they can’t do anything about it! Email pac@cs.unh.edu with your complaint! Or if you want to remain anonymous, use the comment box outside the PAC (checked less frequently than e-mail). If you’re going to tweet everyone, please at least include us (@unhpac).

6. **Think about getting a tutor.** It’s free! If you need significant one-on-one time to really get some concepts debugging techniques down, then ask for more help. You can request an hour-per-week tutors by e-mailing pac@cs.unh.edu and providing the times you’re available for such help!

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**Extenuating Circumstances**

Life throws you curve balls. You get really sick, or a family member gets injured or dies, or you find yourself in an abusive relationship or in the grips of an addiction. The PAC can’t help you with these, but we know of people who can (contact pac@cs.unh.edu). Plus, the sooner you tell your professor, the more likely you’ll be able to work out a plan for making up the work when you’re back on your feet.