

What are the TCSS 390 Workshops?

The TCSS 390 workshops are problem solving sessions where students solve problems related to the course that the workshop is associated with. There are CSS workshops associated with TCSS 143 (Object-oriented programming), TCSS 321 (Discrete Mathematics), TCSS 342 (Data Structures), and TCSS 343 (Design and Analysis of Algorithms). The TCSS workshops are actual classes that students can enroll in (and pay tuition for). They are taken credit/no credit. The workshops meet twice a week for two hours per session, except for the workshop associated with TCSS 143, which meets once a week for two hours, opposite the time the lab for the class is.

The main purpose of the workshops is to provide a place for students to practice problem solving in the related class and in doing so develop a deeper understanding of the material. There are other goals as well. One is to develop good study habits that will benefit students in later courses: working on lots of problems, developing problem solving skills, being precise and accurate when talking about the material, and regularly talking to others about the material. Other important goals are to develop skills in critiquing other people's work and to develop written and oral communication skills. *These are important skills to develop not only as a good student and professional computer scientist, but also as a good citizen.*

A typical workshop session involves working on problems in groups. Solutions to the problems are shared with the other groups and discussed as one large group. Workshop sessions are run by a student *facilitator*, whose job is to find problems for you to work on and to help you when your group gets stuck on problems. The facilitator does not report to the instructor for the lecture class; he or she reports to the workshop manager. So, there is no reason for workshop students to worry about "looking dumb" to the facilitator and that somehow getting back to the instructor.

The workshops are a kind of honors program, but it is not an honors program that is based on prior academic performance like most honors programs. Rather, the workshops are an honors program based on the willingness and desire to succeed in the CSS (or CES) program.

The workshops are 2-credit courses. Students have found it helpful for financial aid purposes to take two 5-credit classes and a workshop, which is considered a full-time load. It is especially recommended that transfer students take such a lighter class load during the first quarter at UW Tacoma, as students often find the adjustment to the university a difficult one. Be aware for scheduling purposes that workshops are available only for TCSS 143, 321, 342, and 343.

While we believe that the TCSS workshops can be a huge help for many students, they are not for everyone. There is a significant time commitment (4 hours per week, or 2 hours per week if you are in the workshop for TCSS 143). Depending on your time commitments in other parts of your life (job, family, etc.), you might not be able to commit to the time that the workshop(s) is offered, in which case enrolling in a workshop might make your life miserable. Be aware, however, that even though you might not be able to enroll in a workshop, you will need to spend about the same amount of time practicing problems (4 or more hours per week) to master the material in the course.

If you are the kind of person who does not like to talk to other students or if you do not like to help other students, then the workshops are probably not for you. In the workshops, you will be talking to other students and explaining ideas to others. Even if you are more introverted than a typical student, you might consider taking the workshop to see if you want to develop those skills, as the workshops are a safe place to interact with other students.

Because discussion and participation are important features of the workshops, that is the primary basis on which credit is awarded for the TCSS 390 workshops.

There is no guarantee that participation in the workshop will give you a better grade than if you didn't. Like the lecture course, what you get out of the workshop is mostly dependent on what you put into it. However, the workshops are a place where you can talk about the concepts and material with other students who are also struggling with the ideas in the course you are taking.

Some questions you might have about the workshops:

- **Why should I take a TCSS 390 workshop?**

To master the course material. It is sometimes difficult for students to find the time to work on extra problems. It is also sometimes difficult to find other students to talk to. The workshops provide both of these. The best students know that in order to master the material in a course, one must practice solving problems and reconstruct (or rehearse) the thinking process from the textbook and the lecture. The workshop is a place where you can do this with other people who are there for the same reason. *In the short term, the workshops will likely help you earn a good grade in the class.* In the long term, you will likely develop study skills (problem solving, working with others, presenting ideas to others) that will benefit you throughout school and beyond.

As a bonus, signing up for the workshops allows you to take a 12-credit course load, which might be important for financial aid purposes. However, you should *not* take a workshop only for financial aid.

- **I am taking one of the courses for which there is a workshop. How do I enroll in the associated workshop?**

You first need to identify which workshop(s) is associated with the lecture class you are taking. You can't just sign up for any TCSS 390 section. Generally speaking, TCSS 390A is for TCSS 143 students, TCSS 390B is for TCSS 321, TCSS 390C is for TCSS 342, and TCSS 390D is for TCSS 343 (and the numbering cycles again with TCSS 390E for TCSS 143). The time schedule should say which lecture course the workshop supports. Don't sign up for the wrong TCSS 390 section! Once you enroll in the workshop, show up to the first workshop session, even if the associated lecture class has not met yet.

- **Can I sign up for a TCSS workshop without being enrolled in the associated course? I will be taking the lecture course next quarter, or I have already taken the course. I want to brush up on the material.**

No. The workshops are specifically for students who are enrolled in the course.

- **I am enrolled in the lecture course. Can I just sit in on the workshop so that I can work on problems that are particularly hard? Can I just come in during midterm or final exam reviews?**

No. The students who enroll in the workshop have paid student fees to do so. The salary for the facilitator who runs it is partially paid by those student fees. It would be unfair for others to benefit from their time and effort without paying for it.

- **The workshops sound great. Can I use the time in the workshop to work on my homework?**

No. The whole point of the workshops is to reinforce *concepts* that you have learned in the class and *deepen* your understanding of those concepts. This means that you need to work on more than just problems that are assigned to you as homework. Many workshop students have found that working on problems that reinforce the concepts from class has made the homework easier, because the concepts are clearer after having worked on and discussed problems in workshop.

- **Do we do anything important in the first week of workshop?**

Yes. In the workshops, students start immediately with solving problems. In addition to solving problems related to the lecture course, the first week of class is often spent reviewing important material from previous courses that will be needed in your current course. Since the quarter only last 10 weeks, it is important to get into the routine of the quarter immediately.

- **I can't take the workshop for the course I am taking this quarter. Are there other campus resources that might help me?**

Yes. For early CSS courses (142, 143, 305, 321, 342, 333, 371), there are CSS lab mentors. They are scheduled throughout the week in one of the CSS labs (typically SCI 106) to help you on a one-on-one basis with difficulties you might be having in your classes. They will *not* do your homework for you, but they will help you clarify concepts, identify bugs, and help walk you through the process to solve problems.

There are tutors in the Teaching and Learning Center (TLC), located in the Snoqualmie Building. They are best suited to help you with questions and problems you might have in your writing courses (any UW Tacoma course that requires you to write a paper, such as TCSS 325) or mathematics courses you might be taking (for example, statistics, pre-calculus, calculus, TCSS 321). If you are a CSS major, you should have already taken statistics and calculus, so in the math area, the TLC will most likely be helpful to you for TCSS 321 (Discrete Mathematics).

Of course, working with other students is another option. This is partly what the workshops are all about. But an underutilized resource is the instructor of the course you are taking! *Find out when your instructor's office hours are and ask questions then.* If you can't make those office hours, see if you can arrange time with your instructor to meet to discuss the course material. You will be amazed at how productive such time with your professor can be.

- **Who can I talk to about the workshops to get more information?**

For more information about the CSS workshops, talk to your academic advisor or talk to the CSS workshop manager.