Course Syllabus

Instructor: Tri Pham

Office Hours (online):

- Time: 7:30pm-8:30pm (every Monday except for the first week)
- How: log into Canvas then access Discussions Forum to post your questions

Email: cs2a2b@yahoo.com (used mostly for programming assignment submission) or phamtri@fhda.edu

OBJECT-ORIENTED PROGRAMMING METHODOLOGY IN C++ (CS 2A)

Course Description

This course is a systematic introduction to fundamental concepts of computer science through the study of the C++ programming language intended for Computer Science majors as well as non-majors and professionals seeking C++ programming experience. Coding topics include C++ control structures, classes and objects, global-scope functions, arrays and elementary data structures. Concept topics include algorithms, recursion, data abstraction, problem solving strategies, code style, documentation, debugging techniques, and testing.

Student learning outcomes for this course:
https://www.fgamedia.org/faculty/loceff/cs_courses/common/slos/cs_slos_1.html (Links to an external site.)Links to an external site.

Textbook and References

The text for the course is recommended, not required. Suggested textbooks are:

Absolute C++, 6th edition (or later) by Savitch & Mock (Pearson).

C++ Primer, 5/E (or later) by Lippman, Lajoie & Moo (Addison-Wesley Professional)

However you can use any C++ textbook that contains the required material covered by the course.

Note: The "*Absolute C++*" textbook contains the required material for both CS 2A and CS 2B courses.

Compilers

1. Window users: Microsoft Visual Studio/C++ or Eclipse for C/C++ developers
2. Mac users: Xcode or Eclipse
3. Linux/Unix users: g++ or gcc compilers or Eclipse

Attendance

It's a 100% online course so no physical appearance in a classroom is required. However you are required to communicate with the class on weekly basis as described in the Communication section below.

Communication

- **Public Forums**

You may post your questions or comments by clicking on **Discussions** on the left menu. Once in the Forum to start a new discussion click on the blue + Discussion button on the top right of the page. Then enter topic title and start typing your question in the Rich Content Editor box. You can expect a reply on the same day, mostly within a few hours. It's OK to answer your fellow student questions in the Forum. It's like a class-room discussion where everyone can talk and express his/her own opinion. I will provide a confirmation or correct the answers if necessary.

As indicated above if you have a new topic, please start a new discussion. To comment on an existing topic, click **Reply** in that discussion.

For the first week of the quarter (by 5:00pm Friday, April 12, 2019) you're required to post an introduction of yourself to avoid being dropped as a "no show" according to the college requirements for online courses. No exception. Click Discussions tab on the left menu then expand Discussions group as needed. Click on :First Week Introductions" topic and then click the "<== Reply" box just a few lines down and start typing your introduction then finally click on "Post Reply" button. **Do not '<== Reply" to other student postings.**

After the first week you're not required to post anything in the public forum but you're encouraged to visit it for your own benefit as from what I've seen in my previous online courses there are your fellow students' posts regarding C++ which are quite useful, if not very interesting, for your own understanding of the subjects being discussed.

Posting program questions: **do not post any code** in the public Forum. Simply ask question to clarify programming assignments' requirements or such. If you do have code-related question send me a private message. That's where you may post your code.

- **Private Messages**

You may send me private questions such as coding, grading, registrations, class schedule, emergency, etc … by clicking on **Inbox** on the Global Navigation on the left. **If there is any issue during your study, your taking exam, your grading you should communicate with me via private message immediately** so that I can help resolve your problem in a timing manner. Most of the time I should be ale to help you within 24-hour period. Do not hesitate to send me a message. I'm here to help you.

- **Office hours**

Every Monday 7:30pm-8:30pm (except for the first week) you can be online to post questions and expect prompt response from me. There is no face-to-face office hours as this is an online course. However I am open to schedule one upon your request preferably at Sunnyvale campus. On the other hand you may post questions online anytime and expect a response from me within 24 hours (or less) **including weekends**.

- **Email**

You may email me at cs2a2b@yahoo.com or phamtri@foothill.edu for questions or when Canvas is down. As indicated in the Private Message section you should email me to express any issue that need my immediate attention. I'm open to listen to any problem you might have and will try my best to accommodate your need.

IMPORTANT NOTE ABOUT TIME ZONE DIFFERENCES:

You're responsible for setting time zone correctly on your Canvas session to ensure the deadlines for quizzes, programming assignment submissions, especially midterm and Final are met correctly. The course is operated on Pacific Standard Time (PST). All times specified in the course are PST. For example if you're in Europe (9 hours ahead of PST) and the midterm's window time is set to 8am PST - 11:59pm PST then in your European time zone the midterm will be available between 17pm - 8:59am the next day local time. Again you will take full responsibility for making sure the time zone difference is accounted for. I just can't accommodate all of you as we have lots of students from different time zones taking the class. If you miss the time window it will be considered as a "no-show" or a late work. No exception. To set your Canvas session to your own time zone click on "Settings" tab at the bottom and select the appropriate time zone for your residence (see below - your Canvas student view might be a bit different than mine).

Spring 2017

FOOTHILL COLLEGE

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Course Details

Image: Choose Image

Name: S17 Obj-Oriented Prog Method Java Sec

Course Code: C S 001A 03W

Time Zone: Pacific Time (US & Canada) (-

SIS ID: 201741:CS001A:3808

Subaccount: Foothill College

Term: Spring 2017

Starts: Apr 10, 2017 at 12am
               Mon Apr 10, 2017 12:00am

Ends:

               ☐ Users can only participate in the cour
               This will override any term availability setting

Language: English (US)

Join the Canvas Translation Community

Assignments and Exams

Your final grade will be based on:

Quizzes	5%
Programming assignments	25%
Midterm	30%
Final	40%

Grading

A+	97%
A	90%
A-	87%
B+	84%
B	80%
B-	77%
C+	74%
C	70%
D+	64%
D	60%
D-	57%
F	$< 57\%$

Drops and Withdrawal

Please refer to the Foothill College registration page for official withdrawals dates and deadlines.

To stay enrolled in this class, you must participate regularly in your lab assignments and exams. This is part of the class participation that online classes must possess in order to maintain their transferability and accreditation.

You will be dropped by me (within the first two weeks you will get no grade to record, between third week to eight week will result in a "W" in your record) for any of the following:

- If you do not post an introduction of yourself in the first week (by 5pm Friday, April 12), you will be dropped for "no show". No exception**.**
- If you do not submit the first assignment by 5pm Sunday, April 21st you will be dropped. Note that the due date without late penalty for the first assignment is 11:59pm Tuesday, April 16.
- If you **do not login for 10 consecutive days (weekends included) I will drop you.** You may (or may not) receive a courtesy warning email from me (for the first time only) if you have not logged in for 8 consecutive days. If you continue stopping logging in I will not send you anymore warning email and simply drop you if the 10-day period has reached. Please note that Canvas has the tool to monitor and track all of your log in sessions.
- If you receive zero scores on any two programming assignments I will drop you.
- If you do not take the midterm I will drop you.

Dropping students is the last thing I want to do. However online courses operate differently from class-room ones. I appreciate your understanding.

Note: if you meet one of the above rules beyond last day to drop for a "W" (usually by end of the 8th week of the quarter) then I can't drop you, and you may receive whatever grade that your points dictate. Please do not make me drop you. Once dropping has occurred it's virtually impossible to add you back in regardless of your situation or excuses.

Collaboration

Working together on homework or programming assignments or exams = ZERO + Dean of Student's Office.

Husbands and wives, roommates, and friends taking the course together: don't discuss ungraded homework/programming assignments/exams with each other outside the public forums. Instead, direct all of your questions to the public forums where everyone can comment and I can moderate the discussion. Do not look for answers on cheater web sites or pay-for-help web sites.

Any variation of collaborating or copying programming assignments is prohibited. The assignment must be 100% your own work. Changing a few variables around to make them look different won't fool me as I've been coding for 22 straight years. And if it does fool me, you probably had to change so many things that you knew enough to do it yourself in the first place.

You can talk about the modules all day long off-line if you wish. This rule only applies to programming assignments. There is a place to ask for help with homework: the Public Forums labeled for that purpose or the *STEM Success Center*. I will spend hours helping you each week, both individually, and in groups. You can even answer each other's questions in the Public Forums. If I think you are giving too much information away, I'll edit your post. So there is no reason to ask your fiancée or your cousin's neighbor's lead guitarist.

If you accept help from someone who is not trained to teach without giving away the answer, it will short-circuit your learning process -- you will actually become weaker. Now, you don't have to agree with me - but you do have to follow the rule. If you want to take a class where you get to solve problems in groups, there are other sections with instructors who have that option. But if you stay in *this* class, you are agreeing to do the programming assignments on your own or with help from us, here, in this course's public forum.

For those of you wishing to give help, please do not give away the answer. Either tell the person where they can look to find the solution, give them a general idea or ask them to ask me. **Don't post actual assignment code.**

Tutoring

The STEM Center, in room 4213, will have CS tutors at various times each day. The STEM Center is also the only place on main campus where students without their own computers can do their lab work. The schedule for the STEM Center and its tutors is at:

[STEM CENTER (Links to an external site.)Links to an external site.](#)

Please ask about online computer science tutors. They should be available to help you out. Note that you must come prepared.

Canvas Orientation and Training

We're using Canvas as Course Management System for online Learning. If you're new students to Foothill or new to Canvas you should access "Canvas Student Orientation" to get familiar with how to navigate and use Canvas for your daily studying. Course materials (Canvas Modules), lab assignments, and exams (Quizzes, Midterm, and Final) will be posted on Canvas. Also Discussions Forum is used for online virtual classroom class discussions. Familiarize yourself with how to read a discussion topic and how to reply to it. In summary follow the below links for more detailed information:

- Canvas Student QuickStart (Links to an external site.)Links to an external site.
- Canvas Student Orientation
- Get Help With Canvas (Links to an external site.)Links to an external site.
- General Foothill College Online Classes Help Desk (Links to an external site.)Links to an external site.

Please get on at least with Canvas Student QuickStart (Links to an external site.)Links to an external site.. If you have any trouble accessing using Canvas you may open a ticket for Canvas support to help you with Get Help With Canvas (Links to an external site.)Links to an external site.. It's distance learning. Don't let the system slow you down. You don't have a choice but be on top of how to use Canvas. Trust me. Don't let it getting your way of learning C++ which is the main reason you're here.

In summary, once logged into Canvas

Access the various areas of your course by first selecting this course through the *Can*
left ...
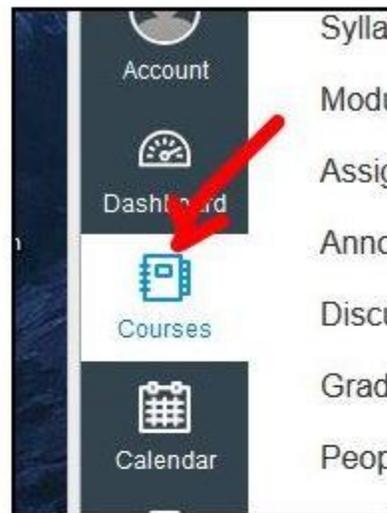
... then examining our *course choices menu*, also on the left side of the screen, bu
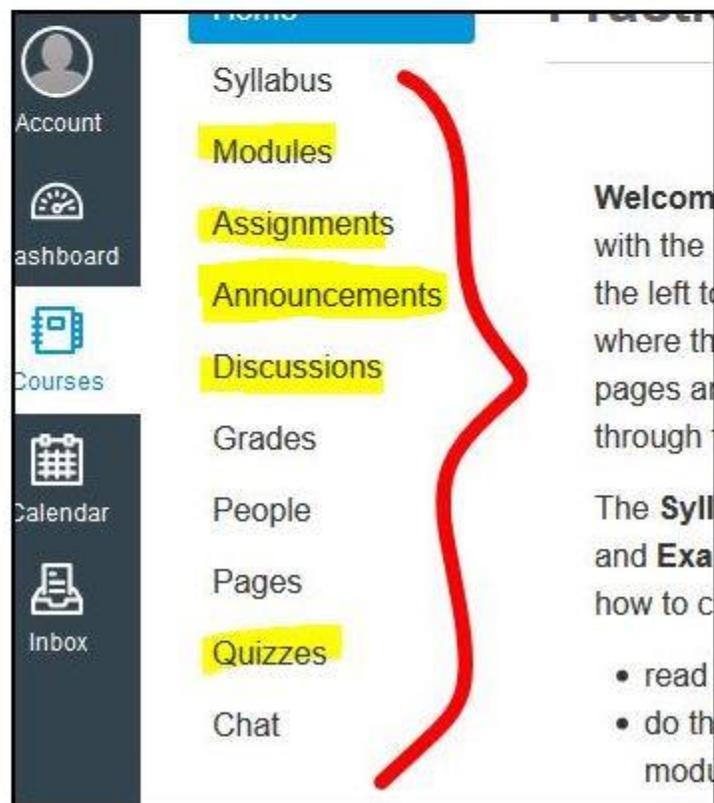
Disability-related Accommodations

To obtain disability-related accommodations, students must contact Disability Resource Center (DRC) as early as possible in the quarter. To contact DRC, you may:

 • Visit DRC in Room 5400 (near the entrance of lot 5)

 • Email DRC at adaptivelearningdrc@foothill.edu

 • Call DRC at 650-949-7017 to make an appointment.

Once obtaining the accommodation approval from DRC please contact me as early as you can so I can help accommodate your special needs.

NOTE: I do not discuss accommodation without first receiving an approval letter from DRC. Please start the evaluation process as early as you can for your own benefit. Inform me by email or private message once you're approved for accommodation so that I'm aware of it and can help you as much as I can.

Course schedule (subject to change)

- Week 1 – Install C++ IDE, The Anatomy of A C++ Program, Data Types and Variables - Output to console using cout statement
- Week 2 – - Numeric statements, C++ expressions and numeric operators - More details on Data types and cout statements
- Week 3 – C++ strings and Input Facility with cin statements - Formatting output - Selection structures (if else/switch)
  Quiz Thursday, April 25
- Week 4 – Repetitions (for/while/do while loops) - Functions
- Week 5 – More on functions - One dimensional arrays
- Week 6 – C++ classes

   MIDTERM exam on Thursday, May 16

- Week 7 – Constructors/Destructors - Member functions - Object instantiation
- Week 8 – Static data and static functions - The "this" pointer - Objects and functions
- Week 9 – Arrays as class members - Object composition

        Recursions and Elementary sorting algorithms

- Week 10 – Searching algorithms (Linear search and Binary search)

         Introduction to Pointers

- Week 11 – Re-enforce your C++ knowledge
- Week 12 – **FINAL exam on Tuesday, June 25**

Taking midterm and Final online

- The exams will be available online starting at 8:00AM PST on the exam date and be closed by midnight (11:59PM PST). **If you reside in a different time zone than PST it's your responsibility to make sure the time zone differences are accounted for (Canvas' Settings will help you set your local time) so that you don't miss the exam window's time at your local time. Re-scheduling exams is time-consuming and problematic and I don't want to go thru it.**
- You must take the test in that 15:59 hour period. No late midterm or final is accepted.
- Exam rescheduling is not generally accepted.
- The midterm is 80 minutes and the final is 120 minutes.

NOTE: This is an online course. Rescheduling exam is hard and time-consuming. In some cases it's not fair to other students. If you're committed to taking an online course lock your exam dates and times. Missing the quizzes or midterm will result in an automatic drop from the class. Missing the Final will result in an "F" grade.

Weekly Activities

- Every week you have two lessons or **Modules** (Module A and Module B). Each module will have one or more sub-modules) to study. Each lesson may have some exercise. Doing exercises is optional as no grading will apply. However the more you practice exercises the more you understand the new programming concepts and the more you're prepared for exams. I will post solutions for odd problem. You may discuss it in public Forum with your fellow students or with STEM tutors.
- Every two weeks or less you have one programming assignment to turn in . You may expect 5-6 programming assignments for the entire quarter.
- This course is a lot of fun but also demands a lot of work and time due to the nature of programming itself and the course's intermediate level. I hope you're committed and allocate sufficient time for it. Otherwise you might quickly find you're lagging behind. Playing a catch-up game in programming is virtually impossible.

Good luck to all.