# CS 2B-02W 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 (you may expect immediately replies I hope:-)

Email: <a href="mailto:phamtri@foothill.edu">phamtri@foothill.edu</a> or <a href="mailto:cs2a2b@yahoo.com">cs2a2b@yahoo.com</a> (mostly for programming assignment submissions)

## **INTERMEDIATE SOFTWARE DESIGN IN C++ (CS 2B)**

## **Course Description**

This course is a systematic treatment of intermediate concepts in computer science through the study of C++ object-oriented programming (OOP) intended for Computer Science majors as well as non-majors and professionals seeking intermediate-level C++ experience. Coding topics include File I/O, inheritance, polymorphism and virtual functions, operator overloading, generic programming (templates), an introduction to the Standard Template Library (STL). Essential C++ programming techniques such as pointers usage and dynamic memory allocation will also be discussed. Abstract data types (ADT) will also be covered with linked list design and implementation.

Student learning outcomes for this course:

https://www.fgamedia.org/faculty/loceff/cs\_courses/common/slos/cs\_slos\_1.htm

## **Textbook and References**

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

Absolute C++,  $5^{th}$  edition or later by Savitch & Mock (Pearson)

The C++ Programming Language, 4/E by Bjarne Stroustrup (Addison-Wesley Professional) - this textbook has more advanced concepts thus only suitable for students with much more programming experience and would like to get deep into language constructs

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

## **Compilers**

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

## **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, September 28, 2018) 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 able to help you within 24-hour period. After all it's an online class. The only way you can reach me is by private messages and emails. So please do not hesitate to send me one. I'm here to help you.

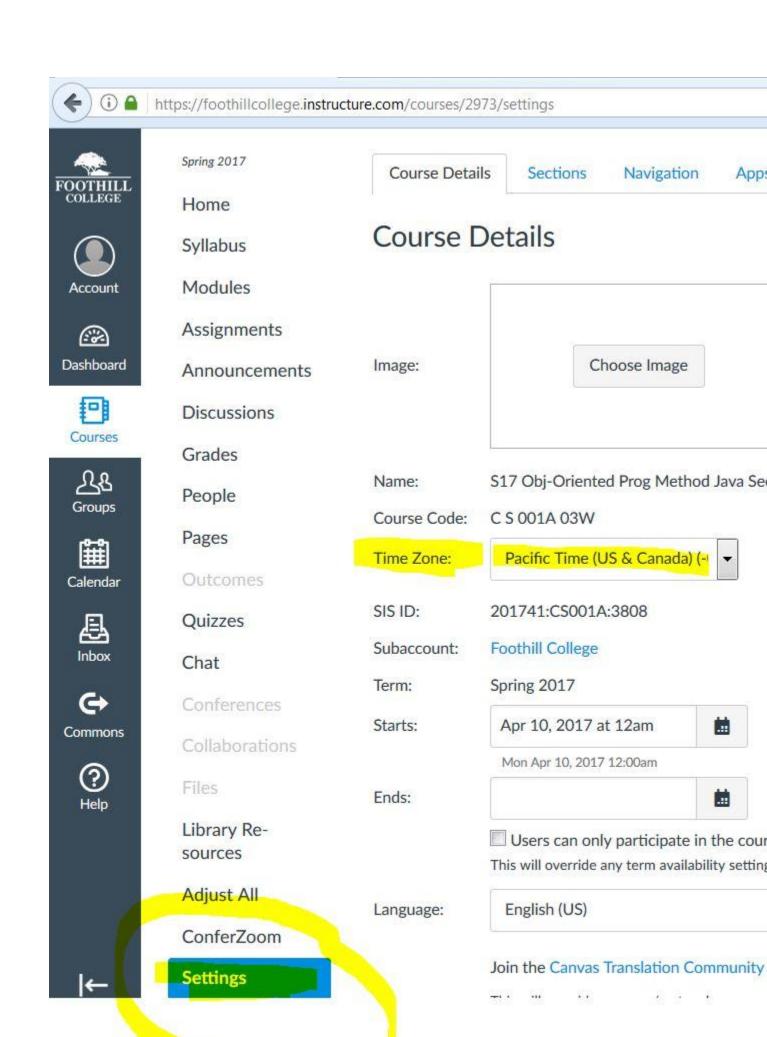
#### Office hours

Every Monday 7:30pm-8:30pm (except for the first week) you can be online to post questions and expect prompt response from me. If not immediately you should get a response on the same night. Otherwise you may post questions online anytime and expect a response from me within 24 hours.

#### Email

You may email me at <a href="mailto:cs2a2b@yahoo.com">cs2a2b@yahoo.com</a> or <a href="mailto:phamtri@fhda.edu">phamtri@fhda.edu</a> 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).



## **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, September 28), you will be dropped for "no show". No exception.
- 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 7 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 or one programming assignment and one quiz, I will drop you.
- If you do not take the midterm I will drop you.

<u>Note</u>: if you meet one of the above rules beyond last day to drop for a "W" (usually by end of the 8<sup>th</sup> 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 21 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:

https://foothill.edu/stemcenter/

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**

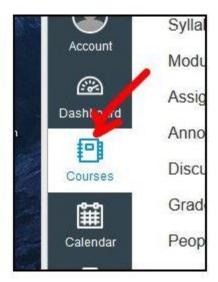
We're using Canvas as Course Management System for online Learning. If you're new students to Foothill or new to Canvas you should access "Canvas Student Orientation" to get familiar with how to navigate and use Canvas for your daily studying. Course materials (Canvas Modules), lab assignments, and exams (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
   (https://foothillcollege.freshdesk.com/support/solutions/articles/1000195540-canvas-student-quickstart)
- Canvas Student Orientation (https://foothillcollege.instructure.com/courses/62)
- Get Help with Canvas (https://community.canvaslms.com/docs/DOC-10554)
- General Foothill College Online Classes Help Desk (https://foothillcollege.freshdesk.com/support/home)

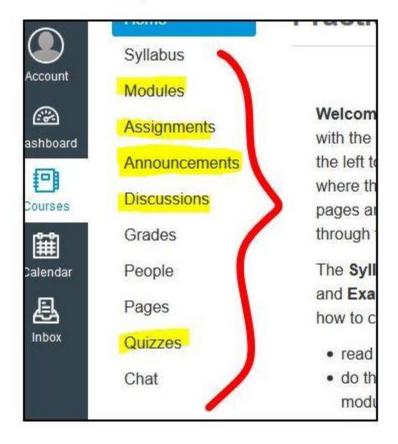
Please get on at least with **Canvas Student Quickstart**. If you have any trouble accessing using Canvas you may open a ticket for Canvas support to help you with **Get Help With Canvas**. It's distance learning. Don't let the system slow you down. You don't have a choice but be on top of how to use 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 Carleft ...



... 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.

## **Taking midterm and Final online**

- The exams will be available 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) and you don't miss the exam window's time at your local time. Rescheduling 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
- No re-scheduled exam is accepted
- The midterm (**Thursday, November 1st**) is 70 minutes long and the final (**Tuesday, December 11th**) is 100 minutes long

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 may or may not post solution however. You may discuss it in public Forum with your fellow students or with STEM tutors.
- Every two-three weeks or so you have one programming assignment to turn in . You may expect 4-5 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.