De Anza College Spring 2015 Revised 1/6/2015

CIS 22B - Intermediate Programming Methodologies in C++ Course CRN 42523-CIS-022A-61Y

Instructor Ron Bates

Meeting Times MW: 8:00 pm – 9:50 pm ATC 311 (In person class time)

Online instructor access Mon 6:40-7:55 pm

Office hours – 6:10-6:40 pm Mondays; 7:25-7:55 pm Wednesdays. Rm ATC 203B

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Course Description A systematic approach to the design, construction and management of computer programs, emphasizing design, programming style, documentation, testing and debugging techniques. Strings, multidimensional arrays, structures, and classes. Pointers: their use in arrays, parameters and dynamic allocation. Introduction to linked lists. https://www.deanza.edu/publications/catalog/search/outlinepublic.html?searchID=CIS22B

Text Starting Out with C++ from Control Structures to Objects, 8th edition, by Gaddis, 2015,

ISBN-10 0133769399 or ISBN-13 9780133769395, Addison-Wesley

eText Rental: CourseSmart Website: http://www.coursesmart.com/0133769399
Text Companion Website: http://wps.pearsoned.com/ecs_gaddis_sowcpp_cs_8/

Class Website: http://catalyst.deanza.edu

Requisites: (Students may receive credit for either {CIS 22A and 22B} or {CIS 27}, but not both.)

Prerequisites: Computer Information Systems 22A

Accessing Code Lab:

Go to http://www.tcgo2.com
Select Register for CodeLab; Choose:" I am a student..."
See instructor for Section Access Code

Student Learning Outcomes

Upon the completion of this course, students will be able to:

- Design solutions for introductory level problems using appropriate design methodology incorporating elementary programming constructs
- Create algorithms, code, document, debug, and test introductory level C++ programs
- Read, analyze and explain introductory level C++ programs

Attendance

Regular and punctual attendance is expected. If you miss a class, you are still responsible for all announcements and/or exercises given out during the class. You may see me for any notes or handouts that may have been given by me during class time.

Regular attendance and participation can have a positive effect on your grade

• Note that all students in attendances must be registered for the class. Auditing is only allowed for those who are repeating the class.

Once enrolled, if you wish to drop the class, it is *your responsibility to drop the class before the last day to drop*. Otherwise, an appropriate grade will be assigned at the end of the quarter

Lab Time/Online Access

This is an online hybrid class. All tests and assignments must be handled through De Anza's Catalyst program. You may use computers in the classroom, computers in room ATC 311, room ATC 203 or you may you're your own laptop/computer with Wi-Fi or Internet access.

Coding Software

Projects and lab assignments will be done using C++. Microsoft's Visual Studio for coding development. Visual Studio is loaded on the classroom computers and on lab machines. A free student version can be downloaded from Microsoft. For links to sites for Visual Studio and other IDEs access the text companion website listed above.

Cheating

Discussion and exchange of ideas on lab assignments are strongly encouraged. However, each person is expected to complete his/her own computer work.

- Identical solutions (even with variable name changes and/or function name changes) will be given a zero grade
- Copying or cheating during an exam will result in a zero being assigned to the test grade for both parties

Lab Assignments

There are 8 lab assignments, each worth 10 points each

- The lab due dates are shown in the class calendar and posted on the Catalyst System
- You must turn in softcopy of each assignment by the due date specified in the Catalyst System. Do not email assignments to the instructor.
- Partial credit will be given for incomplete labs
- Labs turned in after the due date will receive a 10% <u>deduction</u> for each class day they are late

Lab Submission Format

Assignments that do not follow these instructions will receive a penalty of 2 points. Each assignment will begin with a documentation block with the following information:

// CIS 22B	
// Lab Number and one line description of the lab	
// Name:	

Assignments will be graded for Correctness, Structure, Style, Clarity and Documentation.

Programs created for labs must have

- 1. Program Listing This should be a .txt file format.
- 2. Program Output. You are expected to adequately test your program. When test data is specified, it is required. Output generated by your program should be submitted to Catalyst as a .jpg or .png file if the output is a console output or .txt file if the program generates file output. Note that some lab assignments may contain multiple programs and/or may also require a work sheet to be turned in.

Exams There a total of eight exams: Exams1-4, Midterm Exam, and a Final Exam

- Exams cover reading, labs and information covered in lectures
- All exams are online using the Catalyst system. Dates for exams will be listed on the Catalyst system
- All exams are open book, open notes
- Midterm and Final exams must be taken in class
- Make up for the midterm will be allowed only with proof of emergency reasons or prior approval. Prior approval must be obtained at least the week before the scheduled exam, and the makeup exam will be given *before* the scheduled exam. The final exam must be taken during the scheduled time, there is no early or late final exam taking

Extra Credit Extra credit assignments may be offered during the course.

Grading

All students will be graded. You will receive a letter grade unless you elect to take the class for a pass/fail. Note that pass/fail elections must be executed by May 1st. Access "My Portal" for details.

Grading is based on points:

Labs: 80 points (10pts * 8)

CodeLab 40 Points

Exams 1-4 60 points (15pts * 4)

Participation 10 points
Midterm Exam 90 points
Team Project 50 points
Final Exam 120 points
Total: 450 points