DE ANZA COLLEGE Winter 2025

32930 CIS 022B.04Y
Intermediate Programming Methodologies in C++ (4 1/2 units)
Syllabus

Instructor:	Delia Gârbacea		
Office Location:	F51c		
Phone:	(408) 864-8308		Rarely used!
Email:	GarbaceaDelia@fhda.edu		
Class meetings:	W	11:30 AM – 1:20 PM	Room: AT 311
Office Hours:	Tu	3:30 PM – 4:20 PM	Room: AT 205
	W	1:30 PM – 2:20 PM	Room: AT 311
	Tu, W	7:00 PM – 7:50 PM	Online (Canvas, chat)
Final Exam:	Monday (Week 12)	11:30 AM – 1:30 PM	Room: AT 311

Welcome to Intermediate Programming in C++! This is a demanding but rewarding hybrid learning class. This means that you learn most of the material on your own via Canvas and zyBooks and participate in online activities. This is also a collaborative class. Get to know your classmates and work with up to three other students on assigned exercises and problems.

Class meetings: There is only one scheduled meeting per week, every Wednesday 11:30AM - 1:20PM. Students will be assigned randomly in groups, getting the opportunity to collaborate with different students in their class, except when taking exams. The rest of the class can be completed independently each week on the student's own time. Students must have access to a computer, the Internet and an individual email address.

Canvas is the online Learning Management System used at De Anza College. Our Canvas Student Guide provides you with instructions and videos on how to perform the most common tasks in Canvas: https://community.canvaslms.com/t5/Student-Guide/tkb-p/student

Prerequisites: Computer Information Systems 22A or equivalent.

Course description: This course is taught as a systematic approach to the design, construction, and management of computer programs, emphasizing design, programming style, documentation, testing, and debugging techniques. Key concepts in Object-oriented programming to be covered are (a) Strings, (b) Multidimensional arrays, (c) Pointers and their use in arrays, parameters, and dynamic allocation, (d) Structures and Classes with operator overloading, (e) Inheritance and Polymorphism, (f) Templates, (g) Exceptions and (h) Introduction to Linked lists. Software engineering and computer science students are the targeted groups.

Text required: " Intermediate Prog. Methodologies in C++ zyBook", an interactive web-based book. Sign in or create an account at https://www.zybooks.com. Enter zyBook code (will be posted to Canvas). Subscribe. A subscription is $25. Subscriptions will last until Apr 11, 2025.

Participation/Attendance policy: This is a 4.5 Units course. Attendance is required both in person and via online participation. You should plan on spending approximately another 11 to 15 hours per week to study and do your homework. If you wish to withdraw from class, it is your responsibility to do so. An unauthorized withdrawal from class without following official procedures will result in you being assigned a grade of "F" (or "NC" if you have selected the Credit /No Credit option).

Communication: Post questions and answers to other students' questions in Canvas. There will be a discussion forum for each topic. Send me a message in Canvas if you require additional information or further clarification. Send me an email (@fhda.edu) if and only if you do not have access to Canvas. I check the Canvas Inbox more frequently than my fhda.edu email. Feedback on assignments / exams will be given in about a week after submission, except for late assignments. Response time to messages / emails / discussions is 24 hours or less on weekdays, 48 hours or less on weekends.

What You Can Expect of Me

I plan to interact and engage with each of you regularly throughout the term to support your learning.

- I will provide direct instruction related to the course's learning objectives,
- I will respond to your questions within 24 hours on weekdays, 48 hours on weekends,
- I will grade and provide feedback on your submitted coursework within a week,
- I will post announcements (agenda) every Mondays, and engage in the course discussion areas regarding academic course content when appropriate.

I am ready to assist you in any way possible as you meet the challenges ahead. If you have questions, concerns, feedback, or just want to chat, we can talk during office hours, or text, or email.

What I Expect of You

- You will establish and maintain a regular study system.
- You will get started right away and maintain the pace outlined in your syllabus and other course materials.
- You will strive to be an active participant in this course and aim to meet due dates.
- You will maintain an open line of communication with me so I understand how to support you.
- You will treat others with dignity and respect.
- You will contact me if you have any concerns about assignments or due dates.
- You will give yourself grace. You may make mistakes, as a part of learning and growing.

In the unlikely event you stop participating in class, I will reach out to you via email. Let's work together so that you succeed in your goals.

I am confident you will develop the knowledge and discipline you need to do well in this course. I will send reminders out to you regarding upcoming deadlines and you are free to work ahead. If you are struggling for any reason, please reach out to me so that we can work together.

Academic Support: Remember, there is no such thing as a dumb question: you want to understand before you get lost. In addition, please be assured that I'm ready to assist you in any way possible as you meet the challenges ahead.

- CIS has its own academic support program: http://deanza.edu/cis/tutoringOnline.html
- The Student Success Center provides free academic support and free workshops open to all De Anza students, and Adjunct Skills and Self-Paced Skills courses: http://deanza.edu/studentsuccess/

- De Anza College makes reasonable accommodations for persons with documented disabilities. Students should notify the Disability Support Services (DSS) Program at (408) 864 – 8753 of any special needs (http://www.deanza.edu/dsps/index.html).
- Student Resources: https://www.deanza.edu/mps/studentresources/index.html

Student Learning Outcomes: By the end of the course, students will:

- Create algorithms, code, document, debug, and test intermediate level C++ programs.
- Read, analyze and explain intermediate level C++ programs and their efficiency.
- Design solutions for intermediate level problems using appropriate design methodology incorporating intermediate programming constructs including structures and objects.

Scholarly Conduct: In order to be successful in this class you will have to make a commitment to studying, reading the text, doing your homework, writing your lab assignments, and participating in class and online activities. Worthwhile contribution and regular participation can positively affect your grade. You are expected to do your own work. Cheating or plagiarism in any form will not be tolerated. Any copied assignments will result in a zero grade for all parties, and may result in a failing grade for the entire course. It may also result in college disciplinary action, and/or notation in their permanent records. The Business Division Dean will also be notified by email. Please check the current Schedule of Classes to learn more about academic integrity, other policies, and Student Standards of Conduct (https://www.deanza.edu/policies/academic_integrity.html).

Class Participation is based on both individual and group activities: 2 to 5 surveys (1 to 10 points each), 5 to 10 short quizzes (3 to 15 points each), 9 synchronous discussions (10 points each), 3 to 8 asynchronous discussions (10 points each).

Participation Activities (PA) and Challenge Activities (CA): These activities are based on your zyBook. The purpose of these exercises and problems is to help clarify the material for you as we proceed and to prepare you for tests, therefore, you are strongly encouraged to solve them on time. For each week(topic) begin completing these activities on Monday and finish all PAs before class, CAs by the end of the week. The last day to submit PAs and CAs for Chapters 1 – 4 is a day before the midterm exam. The last day to submit PAs and CAs for Chapters 5 – 11 is a day before the final exam.

Programming Assignments (Homework): You will be given 9 programming assignments (100 points each). An assignment consists of 2 to 6 short C++ zyLabs, one longer C++ zyLab, and a short report (1 page). The programs are to be run using the computer and will be graded on correctness, structure, style, clarity, and documentation. Submit your assignments before the due date for automatic grading and resubmit if needed.

- 2 points will be deducted for each day an assignment is late.
- No assignment will be accepted more than six days after the due date, unless there's an exceptional situation (email me preferable in advance).
- Partial credit will be given for incomplete assignments.
- There is no make up for any assignment.
- All assignments must be submitted online: C++ programs to zyBook, upload Report to Canvas.

Tests and Quizzes: There will be 10 quizzes, one midterm exam and a comprehensive final. The final exam will be similar to the midterm exams, emphasizing the material learned after the midterm but covering the rest of the quarter as well.

Extra Credit: Students can earn extra credit by taking practice quizzes. There are 1 to 3 practice quizzes per chapter. You are strongly encouraged to take the practice quizzes on time. Late submission is accepted for full credit, but not later than the corresponding exams: Chapters 1 to 5 a day before the midterm exam, Chapters 6 to 11 a day before the final exam.

Tentative Schedule

Week#	Course Topics	Quizzes & Exams	Important Dates
1	Binary Search and Insertion Sort		
2	Two- and Multi-Dimensional Arrays	Quiz 1	Last day to add classes
3	Structures	Quiz 2	
4	Pointers	Quiz 3	Last day to request “Pass/No Pass”
5	C-Strings and C++ string class	Quiz 4	
6		Midterm	Wed, Feb 12
6	Classes – Part 1	Quiz 5	
7	Classes – Part 2	Quiz 6	
8	Linked Lists – Part 1	Quiz 7	Last day to drop classes with a "W"
9	Linked Lists – Part 2	Quiz 8	
10	Inheritance and Polymorphism	Quiz 9	
11	Templates, Exception Handling	Quiz 10	
12		Final Exam	Mon, March 24, 11:30AM – 1:30PM Room AT 311

Important Dates

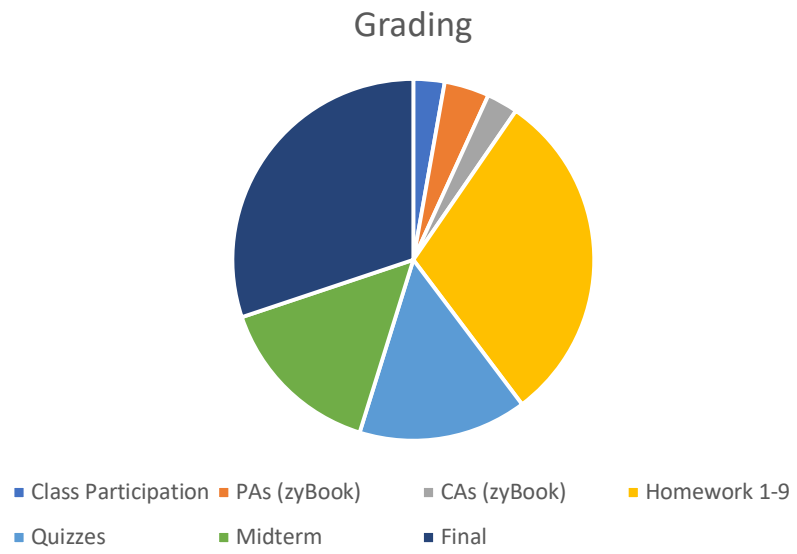
JAN 19 Last day to add classes
JAN 19 Last day to drop classes without a W
JAN 20 Martin Luther King Jr. Holiday – no classes, offices closed
FEB 14-17 Presidents’ Holiday – no classes, offices closed
FEB 28 Last day to drop classes with a W
MAR 24-28 Final exams

Coding Environment: Most assignments are configured to have students programming directly in their zyBook. For some assignments, students are required to use a coding environment on their computer and upload one or more files. Students will need access to a C++ compiler and development environment. During the first half of the quarter you could program directly in zyBook and occasionally use OnlineGDB, an online C++ Compiler: https://www.onlinegdb.com/online_c++_compiler. Meanwhile decide what IDE is best for you. There are many Integrated Development Environments (IDEs) available. Instructions for downloading and installing an IDE, using the IDE to build and run an executable from a source file, basic debugging tools in the IDE to locate and debug syntax and run-time errors are available at: http://www.deanza.edu/cis/resources.html. For Windows machines you can install the version of Code::Blocks that comes bundled with MinGW or you could also download and install MS Visual Studio. If you're on a Mac, install Xcode, which comes bundled with GCC; registration with Apple is required. If you're using Linux, you probably don't need our help on this one, and your operating system probably came with GCC anyway. You may use any of them if you so desire. While all of these will serve the

purpose well, we cannot guarantee that we will be able to help you with any problems that arise in the course of using them. Our TAs can help with IDE questions too:
http://deanza.edu/cis/tutoringOnline.html

Grading: Your grade is based on the score you earn as shown below. Worthwhile contribution and regular participation can positively affect your grade. The Extra Credit points will be added to the students' Canvas score at the end of the quarter.

		Example	
Class Participation (Wed)	3%	94.77	(94.77 * 3 +
PAs (zyBooks)	4%	99.49	99.49 * 4 +
CAs (zyBooks)	3%	100	100.00 * 3 +
Homework Assignments (Labs)	30% (9 at 100 pts. each)	97.75	97.75 * 30 +
Quizzes	15% (100 pts.)	95	95.00 * 15 +
Midterm Exam	15% (100 pts.)	80	80.00 * 15 +
Final Exam	30% (100 pts.)	98	98.00 * 30 +
Extra Credit (Practice Quizzes)	3%	82	82 * 3) / 100
SCORE:	103	97.25 (Grade A+)	= 97.25

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[97, 100]  → A+
[93, 97)   → A
[90, 93)   → A-
[87, 90)   → B+
[83, 87)   → B
[80, 83)   → B-
[77, 80)   → C+
[70, 77)   → C
[67, 70)   → D+
[63, 67)   → D
[60, 63)   → D-
[ 0, 60)   → F
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