

West Los Angeles College  
Los Angeles Community College District  
Adjunct Lecturer E. Orejel, MSCS  
Email: orejele (at) laccd (dot) edu  
Section #26492 CS116 C++ Programming 3 Units  
Section #26493 CS116 C++ Programming Laboratory 0 Units  
Spring 2023, Feb 6, 2022 to Jun 5, 2023

**Please read my syllabus thoroughly. Spend some time analyzing it.**

**By Taking My Course, You Agree to the Following:**

- You will do your own work for every assignment.
- You will follow all instructions on assignments.
- You will not cheat on any assignments.
- You will provide your own analysis on all assignments, when required.
- If you submit no work, I may or may not exclude (drop) you from the course. Please submit work, or withdraw or drop yourself.
- You will not let my class workload scare you into dropping the course. Once you understand the flow of the assignments, the lectures, and the C++ programming language, you will be glad you did not drop.

**Welcome to CS116 C++ Programming**

For the Spring 2023 semester, the C++ programming language will be used to learn fundamental concepts of Computer Science, and the C++ programming language. We will cover ten chapters in the course. We will cover the basics of C++, decision-making, expressions, repetition, functions, classes, Objects and OOP fundamentals, data storage using variables, vectors and arrays, searching, sorting, and algorithm analysis, and strings. These topics may change depending on our schedule.

**Course Description**

This course (formerly Co Sci 939). This course teaches the student to write programs in the C++ language and introduces the object-oriented programming paradigm. After reviewing basic statement types, students learn to write functions utilizing pass by value and pass by reference. Then students are introduced to structures, classes, and objects. Students then learn how to use objects effectively in writing programs. Students learn how operator overloading and inheritance facilitate the use of objects. Pointers, memory management techniques, friend, and virtual functions are described. Finally, students examine streams and files as an example of the application of complex object-oriented programming in the C++ language. [CS116 C++ Programming Description at West LA College](#)

**Required Materials**

The following materials are required for success in the course:

1. Access to the Internet.

2. Textbook: Starting out with Early Objects, 10<sup>th</sup> ed. (Could be 8<sup>th</sup> through 10<sup>th</sup> edition)  
[Starting Out with Early Objects on Amazon](#)
3. Login to the Canvas Shell to participate in the class, and start getting ready to submit assignments.
4. Motivation!

### **Class Location and Meeting Times**

CS116 C++ Programming meets in room TLC 401, at West Los Angeles College in Culver City. CS116 C++ Programming meets at the following times on Tuesdays and Thursdays: Lecture, 11:10 AM to 12:00 PM; Laboratory, 12:10 – 1:00 PM. Thus, we will be in class from 11:10 AM to 1:00 PM on Tuesdays and Thursdays.

### **Office Hours Policy**

Office hours will be held immediately after class in room TLC 401. Office hours will last 30 minutes. Please come prepared. The office hours are first come, first serve. Please be respectful if there is a line of students.

I will not hold office hours online unless there is an emergency, or it is required. You can contact me via email, if you need minor assistance. However, I cannot complete any code or assignments for you.

### **Lectures and Attendance Policy**

I will lecture all period on Tuesdays from 11:00 AM to 1:10 PM. I may give a small break in between. The laboratory assignments and quizzes will be held Thursday from 11:00AM to 1:10 PM.

Attendance is mandatory! I will verify attendance for every quiz, for the Midterm, and the Final Exam.

### **Software Engineering Tools to Help You**

- We will use Microsoft Visual Studio for C++ programming assignments.
  - Download it here: [Download Microsoft Visual Studio Free](#)
- We will use Microsoft PowerPoint for flowcharting assignments.
  - You can access this free, using your LACCD account.
- We will use Microsoft Word for typing any documents.
  - You can access this free, using your LACCD account.

Disclaimer on software engineering tools: You may use your preferred tools to complete assignments, but it is highly recommended that you use the tools that I have listed to help you. Further, you will eventually create files to submit to me. Please only submit the file types that I require. You will see what file types to submit on each set of instructions for each individual assignment.

## **Late Work and Email Policy (How to Submit Assignments)**

All assignments must be submitted through Canvas. I will not accept email assignments, and I will not accept late assignments. These rules will not change, unless required. Please plan accordingly.

## **Course Objectives**

1. Leverage the C++ programming language to write programs using fundamental C++ programming concepts.
2. Design flowcharts of the step-by-step procedures found in the C++ programs, to illustrate the flow of the program, before the program is coded in C++.

## **Student Learning Outcomes**

1. Analyze, design, write, and test software programs using the C++ language.
2. Draw function flowchart diagrams that represent the step-by-step flow of a program.

## **Coursework Policy**

Attendance: Class attendance is required, and worth 10% of the total points towards your grade.

Homework: You will have homework every Thursday of every week, unless there is a Midterm or Final scheduled. In total, there will be 9 Homework Assignments. I will publish the homework on Canvas after the lecture on Tuesday. You will have Friday, Saturday, Sunday, Monday, and Tuesday morning to complete the homework. The homework is due before the lecture starts on Tuesday.

Quizzes: You will have 9 quizzes on Thursday of the designated lecture week, except for Midterms and Finals week. Quizzes are worth 10% of your total grade points.

Midterm: You will have 1 Midterm before Spring Break. The Midterm is worth 50% of your total grade points.

Final: You will have 1 Final. The Final is worth 30% of your total grade points.

Extra Credit: I may give some extra credit. The extra credit will come from Chapter 10, or the final lecture of the semester before the Final Exam. I can also choose extra credit from a different chapter in the book.

## **Grading Policy**

A standard grading scale will be used. It is as follows:

90% - 100% = A

80% - 89% = B

70% - 79% = C

60% - 69% = D

Below 60% = F

### **Class Workload Disclaimer**

I reserve the right to modify the class assignments. I will not add more assignments, but I might remove some depending on the schedule. This should not happen, however. I have thought about the syllabus very deeply, and I think the workload is fair. The class may require 20 or more hours of study per week.

### **Student Behavioral Expectations and Code of Conduct Policy**

According to code 9803.15, disruption of classes or college activities is prohibited and will not be tolerated. Students are expected to conduct themselves like professional collegiate scholars. I will adopt the district's code of conduct policy, and use it as my own.

The policy states: The Los Angeles Community College District faculty, staff and administration are dedicated to maintaining an optimal learning environment; the standards of behavior as outlined in Board Rule 9803 are essential to the maintenance of a quality college environment.

These standards apply to all students on campus or other college property or while attending any college-sponsored classes, activities or events. Violation of such laws, policies, rules and regulations or behavior adversely affecting suitability as a student, will lead to disciplinary action. [LACCD and West LA College Student Code of Conduct](#)

### **Incomplete Policy**

A student whom has successfully completed more than 85% of the semester's coursework (excluding the final exam) earning a grade of "C" or higher, must present a justifiable reason to be considered for an incomplete grade. [More Information on West LA College Admissions Page](#)

### **Academic Integrity Policy**

In accordance with code 9803.28, academic dishonesty is prohibited and will not be tolerated in this class. Violations of academic integrity include, but are not limited to, the following actions: cheating on an exam, plagiarism, working together on an assignment, paper or project when the instructor has specifically stated students should not do so, submitting the same term paper to more than one instructor, or allowing another individual to assume one's identity for the purpose of enhancing one's grade. Academic dishonesty of any type, such as cheating or knowingly furnishing false information, by a student provides grounds for disciplinary action by the instructor or college. In written work, no material may be copied from another without proper quotation marks, footnotes, or appropriate documentation. Plagiarism will result in a zero for the assignment, possible dismissal from the class and disciplinary action from the college. I will automatically inform the Department Chair if you are caught plagiarizing your work.

## **CS116 C++ Programming – Important Course Policies**

### **Communication Policy**

I am available 7 days a week to answer your emails. Email is my preferred method of communication. I reply to emails in 24 to 48 hours. Resend if I do not reply after 48 hours. Contact me at my official school email that is found on the syllabus or you can find it here: [orejele@laccd.edu](mailto:orejele@laccd.edu).

In your email subject line, include the following:

- Full name: First Name, and Last Name -> example: John Smith
- Student ID: XXXXXXXXX
- Section Title, and Section Number: CS116, #26492
- Example: John Smith, XXXXXXXXX, CS116, #26492

I may reply earlier if there is an emergency. You can also contact me over Canvas. I will reply in 24 to 48 hours from Canvas.

### **Communicating with Me**

When communicating with me in person or electronically in writing, please explain or write your problem or message clearly, and as thorough as you can. Use proper punctuation, and do not use any slang terminology in your message. Also, do not use “Internet speak” in your communications with me.

I will not understand the slang, or the “Internet speak,” and it will be very unprofessional. I am not here to be your friend per se, I am here to teach you about Computer Science. Try to be brief, accurate, and concise in your communications to me.

If English is not your first language, or you are learning English as we speak, that is, while taking this course, you can always use Google Translate or other translation applications to translate anything that I may say or write down, as part of the class. Usually, all of my words translate easily to other languages.

### **Electronic Device and Recording Device Policy**

No type of audio or video recording is allowed in my class. Please be respectful and do not violate this policy. Further, State law in California prohibits the use of any electronic listening or recording device in a classroom without prior consent of the instructor and college administration. Any student who needs to use electronic aids must secure the consent of the instructor. If the instructor agrees to the request, a notice of consent must be forwarded to the Vice President of Academic Affairs for approval. For more information, refer to the following link: [West La College Catalog Policies](#)

## Internet Connection Policy

To communicate effectively throughout the course, you will need an internet connection of some kind. If you do not have internet at home, the school lab may offer internet services to you. Please feel free to reach out to me, if you will not have internet access of any kind, for the entire duration of my course.

If you will not have internet access at all, and you still need my course, please send me an email, so that we can solve your situation together. I will try to help you get situated enough, so that you can have access to the internet for the entire duration of my course. I will not accept assignments over email. All work must be submitted through Canvas.

## No Show and Drop Policy

Regarding the NO SHOW policy. I expect all of you to be present on the first day, and the first week of class. As stated previously, attendance is required in my class. If you are not present on the first day or the first week of class, I may drop you from the course almost immediately, in order to give your seat in the class to another student.

Once you are dropped, I will not add you back into the course, unless permission is granted by the Department Chair. If I see no activity on your Canvas page, or you do not reply to my emails, or you have a lot of missing assignments, I may drop you from the course, and use your performance in the class as my justification. However, it is not guaranteed that I may drop you, even if you do not perform as expected. Please exercise good judgment at all times, and drop yourself from my course, if it is required. If there are any issues, I will forward the matter to the Department Chair.

## Important Class Dates

- Last date to enroll with a permission number: Feb. 20, 2023
- Last date to drop this class without a "W": Feb. 20, 2023
- Last date to drop with a "W": May 5, 2023
- Last date to drop with a refund/no fee owed: Feb. 19, 2023

**\* Some fees are not refundable even if the class is dropped on or before this date.**

## Student Responsibility to be Informed

While WLAC provides numerous support services to assist students, regulations will not be waived nor exceptions granted because a student pleads ignorance of policies, procedures, or deadlines. It is the student's responsibility to read the information presented in this catalog and to know and observe all policies and procedures related to their program. Regulations will not be waived nor exceptions granted because a student pleads ignorance of policies, procedures, or deadlines. [West La College Catalog Policies](#)

## **Exclusion Policy**

At all times, it is your individual responsibility to withdraw from this class. At no point in the course, am I responsible for your enrollment decisions. Thus, I am not responsible for you dropping or not dropping the class.

Further, the campus has specific policies related to dropping a course. Please familiarize yourself with these policies, as they may impact your ability to receive financial aid, or other school benefits. Your attendance may impact other school policies as well. You can find more information about the drop policy for the campus here: [West LA College Helpful Student Policies](#)

## **Campus resources**

View information for all Students Services at <http://www.wlac.edu/services-resources/index.aspx>

Stay up-to-date on College Announcement at <http://www.wlac.edu/news/index.aspx>

## **Office of Disabled Student Programs and Services (DSP&S)-**

<http://www.wlac.edu/dsps/index.aspx>

West Los Angeles College recognizes and welcomes its responsibility to provide and equal educational opportunity to all students with disabilities. The Disabled Students Programs and Services (DSP&S) department has been established to provide support services for all qualified students with disabilities pursuing an education at West Los Angeles College. DSP&S with approved testing accommodations will take exam according to establish procedure. Please follow the outlined test accommodation procedure as stated by DSP&S for every quiz and exam. The DSP&S department is located in the Student Services Building (SSB) 320; (310) 287-4450

## **Instructional Support (Tutoring) & Learning Skills Center**

Heldman Learning Resources Center (HLRC) | (310) 287-4408

Improve your reading, language, vocabulary, spelling, math fundamentals and chemistry knowledge with convenient, self-paced computer-aided courses in the Learning Skills Center. Increase your knowledge and learning success: sign up for tutoring in various college subjects (WLAC College Catalog).

## **Library Services**

Heldman Learning Resources Center (HLRC) | (310) 287-4269 & (310) 287-4408

The WLAC Library provides instruction on how to use the online catalog, periodical and research databases. In addition to a large collection of books, periodicals and videos the WLAC Library has course textbooks which students may use while in the library. Web access is available in LIRL as well as meeting rooms. The upper floors provide a beautiful view ideal for study (WLAC College Catalog).

For more information, refer to attached link: [West LA College Library](#)

## **Learning Resource Center**



West Los Angeles College students are provided learning support resources at no charge through the Learning Center's tutoring services. The Learning Center offers tutoring to assist all West students with a variety of different subjects, ranging from writing to math to science. Tutors will assist students at any stage of the learning process and provide student-centered tutoring, which means believing in students' abilities, building their confidence, respecting their experiences, and placing students in an active role in the learning process. Students are encouraged to visit the Learning Center early and often throughout the semester to help build a strong foundation for success in their courses.

Please visit the Learning Center's website for additional information on tutoring: [West LA Learning Center](#)

Contact Learning Center Director, Chase Selby, with any questions: [selbyc@wlaac.edu](mailto:selbyc@wlaac.edu)

Alternatively, students may call the Learning Center "front desk" with questions at: 310-287-4404

### **Campus Sheriff's Office (Emergency Preparedness)**

C3 Building, Parking Lot 5 | (310) 287-4311 & (310) 287-4314

For more information, refer to attached link: [West LA College Sheriff's Office](#)

The Sheriff's Office website includes information about drill or emergency building evacuations, Title IX resources (if you have been the victim of Sexual Harassment; Sexual Violence and/or Gender-Based Discrimination), and what to do in the event of a lock-down or active shooter situation.

### **Title IX**

Title IX (of the 1972 Education Amendments) protects students and staff alike from discrimination based on sex, including Sexual Harassment and Sexual Assault, which are forms of Sexual Misconduct. Under Title IX, all people in the educational environment must be treated equitably, regardless of sex, sexual orientation or expression, and/or transgender identity. For more information: [LACCD Title IX Policy](#)

If you have experienced or learned of a possible violation of Title IX and/or would like to know about options, resources (including confidential services), the law, or District policy, please do not hesitate to contact a Title IX Coordinator.

College Title IX Coordinator: Glenn Schenk Phone (310) 287-4275 Email [schenkga@wlaac.edu](mailto:schenkga@wlaac.edu)

|                           |                                  |
|---------------------------|----------------------------------|
| District Title IX Office: | Office for Diversity, Equity and |
| (213) 891-2315            | InclusionTitleIX@email.laccd.edu |

### **Student Grievance Process**

[Student Grievances Policy](#)



Dial 211 for assistance on mental health and social service Division Web Site  
<http://www.wlac.edu/computer-science>

### Accuracy Statement

Every effort to provide an accurate syllabus has been made. If you find a mistake on the syllabus, please understand that it was not intentional. I reserve the right to modify the syllabus to suit our needs. You will receive ample notification if an aspect of the syllabus has to be modified.

Kind regards,

Adjunct Lecturer E. Orejel.

| CS116 C++ Programming Lecture and Coursework Outline |  |                   |  |
|--|--|-------------------|--|
| Module 1<br>Chapter 1<br>Week 1                      | Introduction to Computers and Programming  | Feb. 7 – Feb. 9   | 1 Week Lecture<br>Attendance verification! |
|  | Quiz #1: Mandatory In-Class Quiz<br>Laboratory Assignments #1: See Canvas<br>Homework #1: See Canvas | Thur., Feb. 9     | Attendance verification!                   |
| Module 2<br>Chapter 2<br>Week 2                      | Introduction to C++  | Feb. 14 – Feb. 16 | 1 Week Lecture<br>Attendance verification! |
|  | Quiz #2: Mandatory In-Class Quiz<br>Laboratory Assignments #2: See Canvas<br>Homework #2: See Canvas | Thur., Feb. 16    | Attendance verification!                   |
| Module 3<br>Chapter 3<br>Week 3                      | Expressions and Interactivity  | Feb. 21 – Feb. 23 | 1 Week Lecture<br>Attendance verification! |
|  | Quiz #3: Mandatory In-Class Quiz<br>Laboratory Assignments #3: See Canvas<br>Homework #3: See Canvas | Thur., Feb. 23    | Attendance verification!                   |
| Module 4<br>Chapter 4<br>Week 4                      | Introduction to Computers and Programming  | Feb. 28 – Mar. 2  | 1 Week Lecture<br>Attendance verification! |
|  | Quiz #4: Mandatory In-Class Quiz<br>Laboratory Assignments #4: See Canvas<br>Homework #4: See Canvas | Thur., Mar. 2     | Attendance verification!                   |
| Module 5<br>Chapter 5<br>Week 5                      | Looping  | Mar. 7 – Mar. 9   | 1 Week Lecture<br>Attendance verification! |

|                                    |  |  |  |
|------------------------------------|--|--|--|
|                                    | Quiz #5: Mandatory In-Class Quiz<br>Laboratory Assignments #4: See Canvas<br>Homework #4: See Canvas   | Thur., Mar. 9                              | Attendance verification!                       |
| Module 6<br>Chapter 6<br>Week 6    | Functions<br><br>Function Continued  | Mar. 14 – Mar. 16<br><br>Mar. 21 – Mar. 23 | 2 Week Lecture<br>Attendance verification!     |
|                                    | Quiz #6: Mandatory In-Class Quiz<br>Laboratory Assignments #6: See Canvas<br>Homework #6: See Canvas<br>In-class Midterm Review<br>Chapters 1- 6 will be in the Midterm.<br>I will give you a study guide. | Thur., Mar. 23                             | Attendance verification!                       |
| Module 7<br>Chapter 7<br>Week 7    | Introduction to Classes and Objects  | Mar. 28 – Mar. 30                          | 2 Week Lecture<br>Attendance verification!     |
| Week 7                             | Midterm Chapters 1 - 6<br>Please be on time!   | Thur., Mar. 30<br>Time: 11:10 AM – 1:00 PM | Attendance verification!<br>In class, TLC 401. |
| No school!                         | Spring Break – Campus closed!  | Mar. 31 – Apr. 7                           | 1 Week Off                                     |
| Module 7<br>Chapter 7<br>Week 7    | Introduction to Classes and Objects<br>Continued   | Apr. 11 – Apr. 13                          | Welcome back!<br>Attendance verification!      |
|                                    | Quiz #7: Mandatory In-Class Quiz<br>Laboratory Assignments #7: See Canvas<br>Homework #7: See Canvas   | Thur., Apr. 13                             | Attendance verification!                       |
| Module 8<br>Chapter 8<br>Week 8    | Arrays and Vectors<br><br>Arrays and Vectors Continued   | Apr. 18 – Apr. 20<br><br>Apr. 25 – Apr. 27 | 2 Week Lecture<br>Attendance verification!     |
|                                    | Quiz #8: Mandatory In-Class Quiz<br>Laboratory Assignments #8: See Canvas<br>Homework #8: See Canvas   | Thur., Apr. 27                             | Attendance verification!                       |
| Module 9<br>Chapter 9<br>Week 9    | Searching, Sorting, and Algorithm Analysis<br><br>Searching, Sorting, and Algorithm Analysis   | May 2 – May 4<br><br>May 9 – May 11        | 2 Week Lecture<br>Attendance verification!     |
|                                    | Quiz #9: Mandatory In-Class Quiz<br>Laboratory Assignments #9: See Canvas<br>Homework #9: See Canvas   | Thur., May 11                              | Attendance verification!                       |
| Module 10<br>Chapter 10<br>Week 10 | Pointers<br><br>Pointers Continued   | May 16 – May 18<br><br>May 23 – May 25     | 2 Week Lecture<br>Attendance verification!     |

|             |   |  |  |
|-------------|---|--|--|
|             | No Quiz #10!<br>No Laboratory Assignments #10!<br>No Homework #10!                      | Thur., May 25                                | Prepare for the Final Exam!                    |
|             | Final Exam Review<br>I will give you a study guide.                                     | Thur., May 25                                |  |
| Finals Week | Final Exam – Comprehensive, but focus is Chapters 7 – Chapter 10.<br>Please be on time! | Thursday, Jun. 1<br>Time: 11:10 AM – 1:00 PM | In class, TLC 401.<br>Attendance verification! |

SAMPLE